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The Hindi translation was done and supervised by the AIIMS Hindi Section
led by Mr P.S. Tomar
All India Institute of Medical Sciences

The All India Institute of Medical Sciences (AIIMS) was established in 1956 as an institution of national importance by an Act of Parliament to develop patterns of teaching in undergraduate and postgraduate medical education in all its branches so as to demonstrate a high standard of medical education to all medical colleges and other allied institutions in India; to bring together in one place educational facilities of the highest order for the training of personnel in all important branches of health activity and to attain self-sufficiency in postgraduate medical education.

The Institute has comprehensive facilities for teaching, research and patient care. AIIMS conducts teaching programmes in medical and para-medical courses both at the undergraduate and postgraduate levels and awards its own degrees. Teaching and research is conducted in nearly 100 disciplines. AIIMS is a leader in the field of medical research with over Rs 100 crores in extramural grants received by its researchers in a year. AIIMS also runs a College of Nursing.

Various departments and centres manage practically all types of disease conditions with support from para-clinical departments. AIIMS also runs a 50-bedded hospital and the Comprehensive Rural Health Centre at Ballabgarh in Haryana and provides health cover to nearly 8 lakh people through the Centre for Community Medicine.
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## AIIMS AT A GLANCE

### 2018–2019

**Year of establishment** 1956

<table>
<thead>
<tr>
<th>Teaching Departments and Centres</th>
<th>42+7</th>
<th>Medical graduates</th>
<th>3209</th>
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<td>Faculty members (Sanctioned 1042)</td>
<td>671</td>
<td>Postgraduates</td>
<td>10399</td>
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<tr>
<td>Non-faculty staff (Sanctioned 11,266)</td>
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<td>Nursing/paramedical graduates</td>
<td>3334</td>
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<td>Undergraduate students</td>
<td>985</td>
<td>Publications in journals/abstracts</td>
<td>1855</td>
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<tr>
<td>Postgraduate students</td>
<td>1991</td>
<td>Chapters in books/books</td>
<td>341</td>
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### Hospital Services

<table>
<thead>
<tr>
<th>Hospital/Centre</th>
<th>Outpatients (including casualty)</th>
<th>Admission</th>
<th>Surgery (Operations/procedures)</th>
<th>Beds</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>General</td>
<td>Private</td>
</tr>
<tr>
<td>Main Hospital</td>
<td>16,56,329</td>
<td>1,17,169</td>
<td>97,900</td>
<td>997</td>
<td>165</td>
</tr>
<tr>
<td>Dr RP Centre</td>
<td>5,70,061</td>
<td>47,356</td>
<td>49,576</td>
<td>288</td>
<td>22</td>
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<tr>
<td>Dr BRA IRCH</td>
<td>1,81,566</td>
<td>46,405</td>
<td>12,069</td>
<td>167</td>
<td>15</td>
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<tr>
<td>Cardiothoracic Centre</td>
<td>2,07,276</td>
<td>11,534</td>
<td>3,961</td>
<td>226</td>
<td>33</td>
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<td>Neurosciences Centre</td>
<td>1,23,754</td>
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<td>3,346</td>
<td>174</td>
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<tr>
<td>NDDTC*</td>
<td>2,21,947</td>
<td>1,341</td>
<td>–</td>
<td>50</td>
<td>–</td>
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<tr>
<td>CCM†</td>
<td>3,51,704</td>
<td>12,608</td>
<td>2,142</td>
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<td>JPNATC</td>
<td>1,28,799</td>
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<td>8,672</td>
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<tr>
<td>CDER**</td>
<td>2,28,659</td>
<td>1,189</td>
<td>23,496</td>
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<tr>
<td>NCI, Jhajjar</td>
<td>1,435</td>
<td>179</td>
<td>13</td>
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<td>Outreach outpatients, Badsa, Jhajjar</td>
<td>1,43,196</td>
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<td>617</td>
<td>–</td>
<td>–</td>
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<td>Total</td>
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<td>2,54,605</td>
<td>2,01,792</td>
<td>2,195</td>
<td>288</td>
</tr>
</tbody>
</table>

*inclusive of Trilokpuri, Sunder Nagri & Kotla Mubarakpur
†inclusive of PHC Dayal Pur
** Including 30 Triage beds

### Hospital performance indices

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Main Hospital</th>
<th>Cardiothoracic and Neurosciences Centre</th>
<th>Jai Prakash Narain Apex Trauma Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average length of stay (days)</td>
<td>9.5</td>
<td>10.2</td>
<td>10</td>
</tr>
<tr>
<td>Average bed occupancy rate (%)</td>
<td>86.8</td>
<td>84.9</td>
<td>80</td>
</tr>
<tr>
<td>Net death rate (%)</td>
<td>1.7</td>
<td>2.9</td>
<td>6</td>
</tr>
<tr>
<td>Combined crude infection rate (%)</td>
<td>5.8%</td>
<td>6.0%</td>
<td>–</td>
</tr>
</tbody>
</table>

CCM: Centre for Community Medicine
CDER: Centre for Dental Education and Research
Dr BRA IRCH: Dr B.R. Ambedkar Institute Rotary Cancer Hospital
Dr RP Centre: Dr Rajendra Prasad Centre for Ophthalmic Sciences
JPNATC: Jai Prakash Narain Apex Trauma Centre
NCI: National Cancer Institute
NDDTC: National Drug Dependence Treatment Centre
I feel privileged to present the Sixty-third Annual Report and audited statement of accounts for the year 2018–2019.

The All India Institute of Medical Sciences, Delhi (AIIMS) was created in 1956 as an autonomous institution through an Act of Parliament to serve as a nucleus for nurturing excellence in all aspects of healthcare. Today, it flourishes thanks to educators, students, scientists, practitioners, staff and clients, who embody the same passion as its founders. The Institute understands that while individual brilliance is important, the cumulative consultative competence of a team combining their efforts to work towards a common goal is often what makes all the difference. I am beholden to this extraordinary community for the extraordinary work they do day in and day out.

Our achievements reflect our shared dedication to education, science and care, and I am pleased to highlight in this report some of the past year’s remarkable accomplishments.

Future-Ready Infrastructure

A masterplan for redevelopment of AIIMS estimated at Rs 9,053-crore received the approval of the Union Cabinet on February 28, 2019. Under this plan, AIIMS will more than double its institutional and clinical facilities and take the number of hospital beds from 2,084 at present to at least 5,000 by 2024. The plan, named ‘One-AIIMS’ will integrate the fragmented campus spread across five land parcels separated by Delhi’s arterial roads. The redevelopment focuses on increasing patient services by reorganizing land use, vertical expansion and consolidation to optimise the infrastructure for patient care, teaching, research, and administration. An integrated expansion effort was long overdue as patient numbers and human resources have grown about 10-fold over the six decades of our existence, while the infrastructural development has not kept pace.

The Honourable Prime Minister of India, Shri Narendra Modi ji dedicated the AIIMS, Delhi’s—National Cancer Institute, Jhajjar (NCI) to the country on February 12, 2019. Built at an expenditure of Rs 2,035 crores, NCI is the largest investment by the Indian Government in a single hospital project and holds the unique distinction among mega healthcare projects to be completed in a record time of 3 years. The NCI has 710 patient care beds and 25 operation theatres dedicated for cancer prevention, treatment, research and education. It is equipped with cutting edge technology in the form of linear accelerators, PET, MRI and CT scanners, and brachytherapy equipment. The NCI will also host the first public sector proton facility as well as robotic core clinical laboratory that can perform over 60,000 tests in a day and has the capability to give reports in two hours. The NCI will also employ advanced digital integration of hospital critical care systems and door to discharge paperless patient records. The NCI shall focus on translational research on India specific cancers which shall enable early detection of cancers and better treatment outcomes. Various countries like USA, France, UK, etc., have entered into research collaborations with NCI and research projects in related areas have already started. The NCI has also collaborated with Department of AYUSH for research into the role of Indian Systems of Medicine in prevention and cure of cancers. In addition, the NCI will act as an apex body for the network of State Cancer Institutes (SCIs) and Tertiary Care Cancer Centres (TCCCs) in India to help develop and mentor cancer-related activities.

AIIMS is set to shift its outpatient department (OPD) into a more spacious location in the adjacent Masjid Moth area. The new OPD constructed according to green and energy conservation norms will be able to accommodate 10,000 patients at a time. AIIMS is also building a new block specifically to offer multi-specialty healthcare to the older population. The National Centre for Ageing, a 200-bed block with a dedicated operation theatre is being constructed at a cost of Rs 330 crores. The Department of Orthopaedics has set up a state-of-the-art modular operation theatre complex for performing advanced surgeries, thus expanding the existing facilities to reduce the waiting list of patients. The facility will provide for robotic spine surgeries and support live streaming of surgeries for educational purposes.

AIIMS has signed a Memorandum of Understanding (MoU) with the National Health Agency (NHA) for the implementation of the Pradhan Mantri Jan Arogya Yojana (PM-JAY). The Institute will provide all diagnostic and treatment facilities to the entitled beneficiary patients admitted in the hospital as per the approved packages and in accordance with the provisions of the scheme. To facilitate patient movement across the Institute, a new app named ‘AIIMS Information’ with GPS-guided routing has been launched. The app will also help patients in getting online appointments and view their laboratory reports using the unique hospital ID through existing websites. Registered patients can also check if they are eligible for the insurance scheme under the PM-JAY. In addition, the app provides maps of nearby government hospitals along with emergency contact numbers for patients who may need to be shifted from AIIMS.

Nurturing the Next-Generation of Medical Leaders

AIIMS ranked first among India’s medical colleges in the National Institutional Ranking Framework of the Ministry of Human Resource Development (MHRD) as well as independent surveys conducted by India Today and the Outlook in the year 2018-19. AIIMS is also the only medical institution from India in the top 1,000 degree-granting institutions of higher education worldwide according to the Centre for World University Rankings. Our educators are ensuring that our dynamic curriculum, which blends basic, translational and clinical science, is producing the next generation of leaders in healthcare.
With its 7 centres comprising of various teaching departments and facilities and 42 stand-alone Departments, and a man-power of over 10,000 including nearly 700 faculty members, AIIMS produces a large number of medical graduates, specialists (MD/MS), super-specialists (DM/MCh), PhD scholars and allied health and basic sciences experts, including nurses and paramedical professionals. During the year, we enrolled 1,015 scholars in various courses. The Institute also provided training to 694 trainees. AIIMS continued to play a mentorship role for the other AIIMS and conducted entrance examinations and counselling leading to final selection of students to the MBBS and BSc (Honours) Nursing courses for them.

The Department of Anaesthesiology, Pain Medicine and Critical Care has started a Bachelor of Science course in Operation Theatre Services and a one-year fellowship in Pain Medicine.

AIIMS exposes clinician and science leaders working in healthcare fields to the real-world settings of medicine to new trends in science and health care delivery. The Institute offered Continuing Medical Education to thousands of physicians and healthcare professionals to help improve skills, knowledge and performance. We organized/hosted over 200 workshops, symposia, conferences and training programmes in collaboration with various national and international agencies. The Centre for Medical Education and Technology (CMET) at AIIMS organized 112 in-house training programmes for different cadres of staff members.

The Skills, E-Learning and Telemedicine (SET) Facility was inaugurated in July 2018. It is a State-of-the-Art facility set up to modernise and update medical education at the Institute. It imparts skill-based learning to medical undergraduates, postgraduates and nursing staff so that they are better prepared when managing patients in wards and clinics. The facility has active involvement of faculty members from various clinical and non-clinical departments who develop the training modules and teaching content and impart hands-on training to the students. The facility has a Dry Skill Lab equipped to impart basic and advanced medical skills and a Wet Lab that supports cadaveric and other surgical skill development workshops. In addition, the SET Facility hosts three modern studios with capability to link with over 50 medical institutions across India. The facility is developing e-learning modules to impart education through telemedicine linkages with medical colleges and hospitals across India. The Academic Section has also started a trial run of software ‘SARAL’ (Student Advanced Resources and Learning) for online training and student management.

AIIMS and Indian Institute of Technology-Delhi (IIT-D) have signed a MoU with an overall objective of building a more robust healthcare system through engineering and technology interventions. The two institutions have decided to initiate 20 joint projects in the areas of application of nanotechnology, robotics, artificial intelligence, precision engineering, advanced materials and polymers for drug delivery, surgical methods and medicine. The six broad areas of collaboration under the MoU include regular joint colloquiums, faculty interdisciplinary research, providing a platform for interaction among the undergraduate students of both institutes, a joint PhD/supervision programme and building a Biomedical Research Park in Jhajjar, Haryana. AIIMS has also signed a MoU with IIT-Kharagpur, for institutional collaboration in education, research outreach programme and medical services. AIIMS also has MoUs with the Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa Rigpa and Homoeopathy (AYUSH), Council for Scientific and Industrial Research (CSIR), Institute of Genomics and Integrative Biology (IGIB), and Translational Health Science and Technology Institute (THSTI). Twenty-five projects have been sanctioned under the AIIMS-IIT-Delhi collaboration and 9 projects under the AIIMS-THSTI collaboration.

AIIMS has entered into a partnership with the University College London (UCL) to enable collaborations in research and increase the number of academic and student exchange opportunities between the institutions. As part of this collaboration, AIIMS has joined the International Centre for Genomic Medicine in Neuromuscular Diseases (ICGMN), led by UCL. The ICGMN is a 5 million pounds initiative, bringing together skills and resources from five countries that aims to advance the genetic diagnosis and therapy for patients with muscle wasting neuromuscular diseases, including motor neuron disease and muscular dystrophy.

AIIMS sets a high value on student diversity. The Department of Biotechnology, AIIMS has started a Student mentorship programme and Career awareness programme to cater to the needs of students from various backgrounds to support the learning outcomes among the students.

Studies from across the world show that medical doctors and students are under stress owing to long work hours, extensive academic load, difficult work environment, and constant exposure to life and death situations. Acknowledging this, AIIMS has started a wellness clinic for its medical students and doctors. The clinic is operational for 12 hours a day and is supported by dedicated e-helpline and 24x7 m-helpline.

Serving the Nation

The Centre for Community Medicine (CCM), AIIMS continues to provide technical support to national health programmes including training, development of resource materials and field-based activities. CCM has conducted faculty development on Operational Research under the Human Resource Development Health Research Scheme of the Government of India. It was designated as the National Centre of Excellence and Advanced Research on Anaemia Control and re-designated as the World Health Organization (WHO) Collaborating Centre for Capacity Development and Research in Community-Based Non-Communicable Disease (NCD) Prevention and Control. The Department has collaborative projects with Center for Disease Control (CDC) Atlanta to elucidate the epidemiology of acute respiratory infections and viral pathogens in India.
Cause of death data is critical for governments to plan and monitor the effectiveness of their health programmes; however, most deaths in India, especially in rural areas are not medically certified. The CCM has developed MINERVA (Mortality in India established through Verbal Autopsies), an online cause of death coding platform for the Registrar General of India (RGI) office under the Ministry of Home Affairs.

The Department of Emergency Medicine, AIIMS is developing guidelines for comprehensive primary health care for burns and trauma as well as for Emergency Departments at District Hospitals under the aegis of MoHFW. In collaboration with South East Asia Regional Office of WHO, the department is also involved in formulating guidelines on road safety, injury prevention, as well as integration of emergency and trauma care in India.

The Department of Medicine was designated as a WHO Collaborating Centre for Training and Research in Tuberculosis. The Department of Paediatrics hosts two WHO collaborating centres (on Newborn Training and Research in Newborn Care & Training in Clinical and Laboratory Genetics). The Division of Neonatology of the Department of Paediatrics in partnership with Postgraduate Institute of Medical Education and Research, Chandigarh, Government Medical College and Hospital, Chandigarh, and Public Health Foundation of India is attempting to improve the quality of care of preterm neonates being treated in special newborn care units (SNCU) in 4 states of the country. The major objective of this activity is to reduce the incidence of retinopathy of prematurity (ROP) in preterm neonates by implementing evidence-based practices. The work is funded by the Queen Elizabeth Diamond Jubilee Trust, UK.

The Department of Haematology played a pivotal role in development of the national policy for control of thalassaemia and haemoglobinopathies and haemophilia by MoHFW.

A nation-wide study commissioned by the Ministry of Social Justice and Empowerment (MoSJE) and led by the National Drug Dependence Treatment Centre (NDDTC) at AIIMS has revealed that 5.7 crore Indians suffer from alcohol related problems; 72 lakh individuals need help for their cannabis use problems; and 22 lakh individuals need help for inhalant abuse and dependence. Further, about 2.5% of the Indian adult population uses opioids and about 8.5 lakh people inject drugs. The report also showed that usage of psychoactive substances such as cannabis (bhang and ganja/charas), opioids (opium, heroin and pharmaceutical opioids), cocaine, amphetamine type stimulants (ATS), sedatives, inhalants and hallucinogens have increased over the previous 15 years; and that a large portion of affected people do not have access to treatment. The survey will aide MoSJE in formulating a national guideline after detailed consultations with stakeholders to counter the drug menace in India. The NDDTC also launched mobile methadone clinics to provide daily observed treatment (DOT) to persons with opioid use disorders in inner city neighbourhoods in Delhi to improve access to treatment and reduce treatment dropout. Till now, less than 2% of the population needing this form of treatment in India according to WHO guidelines is receiving it. Based on the success of this initiative, this new approach can be scaled-up in different parts of the city and country.

Cleft lip and cleft palate are conditions wherein the two sides of the lip and roof of the mouth (palate) do not completely fuse together during foetal (intra uterine) development. These conditions are among the visible deformities recorded under the Rashtriya Bal Swasthya Karyakram. A multi-centre study led by Centre for Dental Education and Research (CDER) showed that nutritional deficiencies and exposure to tobacco/smoke, alcohol, over-medication and radiation during the first few weeks of pregnancy could lead to cleft lip and cleft palate in newborns. A web-based recording system, “IndiCleft” tool was developed with the help of the National Informatics Centre to track these conditions in the population. The CDER has also initiated a nationwide oral health survey in collaboration with the MoHFW to obtain representative data on common dental diseases in the country like dental decay, gum diseases, dentofacial deformities, cancerous lesions, dental fluorosis and dental trauma.

A multi-institutional team led by the Department of Cardiology conducted a survey in four Indian states that revealed that about 23% of primary and secondary school students in rural areas had high blood pressure. The study highlighted the need for screening and management programmes since high blood pressure in childhood can lead to early onset of heart diseases in adulthood.

The Department of Pharmacology is running the Adverse Drug Reaction (ADR) monitoring centre (ADR-AMC) under Pharmacovigilance Programme of India (PvPI) and Medical Device Monitoring Centre (MDMC) for Materiovigilance Programme of India (MvPI) by the MoHFW.

**Research and Innovation**

This era is marked by the remarkable pace of new discoveries and the proliferation of ever-advancing technologies. Our Institute is at the epicentre of a dynamic network of research and discovery related to biomedicine. AIIMS-Delhi continues to be the top medical institution in terms of research output in India. It published nearly 1900 research papers in national and international journals and over 300 monographs, books and chapters in books during the year.

The Research Section serves as a catalyst for research at AIIMS-Delhi. We are expanding and deepening our research infrastructure, investing in cross-disciplinary collaborative research, and enhancing therapeutically oriented and translational research education. The faculty and scientists at the institute conducted over 627 funded research projects that attracted
more than Rs 128 crores worth of extramural research grants. In addition, the research section disbursed grants amounting to Rs 3.72 crores for 81 new Intramural Research Projects to fast forward fledgling research careers and 30 collaborative scheme projects to support cross-disciplinary research. The Research Section also organized a Research Day to showcase the work of young researchers at AIIMS. An exciting addition is the MBBS mentoring scheme, under which 26 research projects involving 68 students were initiated.

Highly sensitive and specific diagnostic tests for pulmonary TB (tuberculosis of the lungs), pleural TB (tuberculosis of the covering of the lungs) and TB meningitis (tuberculosis of the covering of the brain) have been developed by a multi-institutional team led by the Department of Biotechnology at AIIMS. The diagnostic tests make use of a DNA aptamer (a small single-stranded DNA molecule that binds to a specific target molecule) that shows high binding affinity to a TB antigen. The team has also developed cheap and rapid portable tests, which can be used for screening pulmonary TB and TB meningitis in high-risk groups. The aptamer-based diagnosis is superior to standard screening tests like gene Xpert, smear microscopy, X-ray and ELISA. The investigators have applied for a patent for the aptamer reagent and plan to initiate a start-up around it.

An estimated 1.5 million people suffer from traumatic brain injury every year in India. The Department of Emergency Medicine at Jai Prakash Narain Apex (JPNA) Trauma Centre in collaboration with IIT-Hyderabad has tested a biomarker (Human ubiquitin C-terminal hydrolase-1) to accurately predict the severity of brain injury. This could enable doctors at smaller hospitals to diagnose brain injury through a bedside blood test in the absence of advanced neuroradiological (CT or MRI) facilities and refer them to centres that can treat such patients.

A Department of Paediatrics-led multi-institutional team of researchers has developed a machine-learning algorithm (artificial intelligence-based model) that can predict setting-in of haemodynamic shock (insufficient oxygen supply to organs) in children almost 12 hours before doctors can diagnose it clinically. Early detection can help prevent organ failure and death. The researchers were able to use the machine-learning algorithm because the Paediatric Intensive Care Unit (ICU) at AIIMS allows for big data warehousing (data of each patient in the ICU is captured every second), the first of its kind facility in India.

Cancer surgeons (surgical oncology) at AIIMS have developed a new technique to operate patients diagnosed with abdominal cancer. This method called the two parallel curvilinear incision technique, increases the survival rate of the patient and minimises flap necrosis without compromising safety.

A study conducted by the Department of Dermatology and Venereology along with Sweden’s Lund University, found that occupational exposure to cement (e.g. labourers in construction industry) can cause skin reactions. Major concentrations of chemicals like potassium dichromate hexavalent chromium in cement can lead to skin problems like dermatitis, eczema, rashes and burning sensation, among others. Adding ferrous sulphate to cement can reduce the effect of harmful chemicals. While this might lead to marginal increase in cost of production, it can help in minimising the risk of cement allergy.

Yoga has gained immense popularity nationally and internationally as a tool for health promotion, especially after the UN declared June 21 as International Yoga Day. However, modern day medicine demands evidence of benefit for interventions for its wider acceptance especially among the medical research community. A multi-centre study led by Public Health Foundation of India in collaboration with AIIMS has shown that Yoga based care is an optimum alternative to conventional cardiac rehabilitation programmes for patients with heart attack. It is safe, convenient, affordable and results in a better quality of life. Further the intervention reduced recurrent cardiac events such as heart attacks and stroke, and decreased heart-related emergency hospital admissions by 50 per cent. The results of another study conducted in the Department of Physiology has revealed that breathing in a particular rhythm (Pranayam) has many positive effects on cardiovascular health. Studies funded by the Ministry of AYUSH and coordinated by the Genetic Laboratory of the Department of Anatomy at AIIMS with various other departments of AIIMS (RP Centre for Ophthalmic Sciences, Physiology, Obstetrics and Gynaecology, Psychiatry) have revealed that Yoga and meditation can help lower eye pressure in patients suffering from glaucoma; reduce the incidence of recurrent spontaneous abortion by improving the quality of sperm DNA; and reduce the severity of depression. Patients who underwent meditation therapy also had major changes in stress hormones, disease modifying factors like oxidative stress and genomic integrity; and improvement in wellbeing. The MoHFW plans to introduce Yoga at all the other AIIMS following encouraging results of a survey conducted at AIIMS, on the effect of yoga on patients after surgery.

The Department of Gastroenterology and Human Nutrition Unit was awarded two Centres of Advanced Research Excellence (CARE) in pancreatic diseases and intestinal diseases by the Indian Council of Medical Research. Similarly, the Department of Paediatrics was awarded two ICMR Centres of Advanced Research Excellence (Nephrology & Pulmonology; and Childhood Neurodevelopmental Disorders).

**Affordable Quality Care**

AIIMS is an institution of national importance and a beacon of hope for millions of economically disadvantaged ailing individuals who throng its portals in the unflinching belief and hope that this is the place where they will receive succour and a resolution of their medical problems.
Practitioners have to incorporate new advances into their clinical care; but they must also provide leadership in terms of directing research towards the most pressing clinical problems and unmet needs. In the current era, where healthcare is proving to be a major challenge because of the high costs of medical treatment, AIIMS continues to provide affordable, yet evidence-based treatment of the highest quality to the poorest of the poor. The AIIMS main hospital and its centres—Cardiothoracic and Neurosciences Centres (CN Centres), JPNA Trauma Centre, Dr BR Ambedkar Institute Rotary Cancer Hospital (BRAIRCH), Dr Rajendra Prasad Centre for Ophthalmic Sciences (RPCOS), CDER, NDDTC—have a total bed strength of 2,483. During the year, AIIMS attended to nearly 4 million outpatients and 2.5 lakh inpatients and performed over 2 lakh surgical procedures at optimal patient care service parameters with average bed occupancy of about 87%, average hospital stay of about 9.5 days; and at a low net death rate of less than 2%. AIIMS serves healthcare needs both within and outside India, particularly in South and Southeast Asia.

RPCOS, which runs the National Eye Bank in AIIMS, has introduced a new Hospital Cornea Retrieval Programme (HCRP) with notification of deaths in real-time to the ORBO (Organ Retrieval Banking Organisation) to facilitate donation and utilisation of corneas. AIIMS has sought government’s permission to conduct lung transplant. It involves replacing a diseased lung of a person with the healthy lung received from a deceased donor. The infrastructure for the surgery is available and the institute has conducted cadaveric workshops for training.

The Forensic Department has prepared a mortuary manual for the dignified management of the dead in collaborating with the International Committee of the Red Cross (ICRC), Gujarat Forensic Science University and NGO Earth Saviour Foundation. Besides improvement in infrastructural and procedural aspects, the manual emphasizes provision of emotional support to those who have lost their loved ones.

The Department of Radiodiagnosis added flat panel digital subtraction angiography and C-arm fluoroscopy to its diagnostic armamentarium. The department also acquired a state-of-the-art software for texture analysis of CT and MR images and another software for assessment of bone age. The Department of Pulmonary Medicine and Sleep Disorders at AIIMS has set up Virtual Bronchoscopy Navigation (VBN), an advanced facility for diagnosis and treatment of patients with small tumour-like spots in the lungs. The machine uses the CT scan image of a patient to generate a three-dimensional (3D) view of the windpipe, following which a bronchoscope can be passed through the windpipe to reach the abnormal areas by avoiding puncturing the lung and reducing complications.

Acolades
The Honourable Vice-President, Shri M. Venkaiah Naidu ji conferred lifetime achievement awards to Professors A.K. Saraya, Samiran Nundy, Kamal Buckshee and Gomathy Gopinath during the 46th Annual Convocation.

AIIMS-Delhi won the first prize for the year 2018-2019 for maintaining high standards of sanitation and hygiene under the Ministry of Health and Family Welfare’s Kayakalp award for the third year running.

Conclusions
The fact that various independent agencies have ranked us as the best Indian institution for patient care, medical education and biomedical research on multiple yardsticks consistently over the years, is a sign of our institutional strength and a testimony to the effort put in by several generations of educators, learners, researchers and staff. I think this multi-dimensional role for AIIMS needs acknowledgement and recognition.

AIIMS-Delhi remains devoted to producing the knowledge and ideas that promise a healthier world for all people.

Randeep Guleria
Director
2. The Institute and Its Committees

INSTITUTE BODY

1. Shri Jagat Prakash Nadda  
   President  
   Minister of Health and Family Welfare  
   Nirman Bhawan, New Delhi 110011

2. Professor Ram Gopal Yadav, MP (Rajya Sabha)  
   Member  
   8-A, Lodhi Estate, New Delhi 110003

3. Shri Ramesh Bidhuri, MP (Lok Sabha)  
   Member  
   H.No.179, Sunpath House,  
   Village Tughlakabad, New Delhi 110044

4. Shri Parvesh Sahib Singh Verma, MP (Lok Sabha)  
   Member  
   1/14B, Shaniti Niketan, New Delhi

5. Shri R Subrahmanyam  
   Secretary, Department of Higher Education,  
   Ministry of Human Resource Development,  
   Government of India, Shastri Bhawan, New Delhi 110001

6. Professor MK Bhan  
   Member  
   Former Secretary, Department of Biotechnology,  
   Ministry of Science and Technology, New Delhi

7. Shrimati Preeti Sudan  
   Member  
   Secretary (Health and Family Welfare),  
   Ministry of Health and Family Welfare, Government of India  
   Nirman Bhawan, New Delhi 110011

8. Professor Yogesh Kumar Tyagi  
   Member (Ex-Officio)  
   Vice Chancellor, University of Delhi, Delhi 110007

9. Dr S Venkatesh  
   Member (Ex-Officio)  
   (from 17 June 2018)  
   Director General of Health Services, Government of India  
   Nirman Bhawan, New Delhi 110011

   Dr Jagdish Prasad  
   (up to 16 June 2018)

10. Dr DS Rana  
    Member  
    Chairman, Board of Management  
    Sir Ganga Ram Hospital, New Delhi 110060

11. Dr (Smt) Vijay Laxmi Saxena  
    Member  
    Coordinator Bioinformatics  
    Infrastructure Facility Centre of DBT (Government of India)  
    Head, Department of Zoology, Dayanand Girls PG College,  
    Kanpur, Uttar Pradesh  
    7/182, Swarup Nagar, Kanpur 208002, Uttar Pradesh  
    Former General Secretary, Indian Sciences Congress Association,  
    (ISCA), Kolkata, West Bengal

12. Dr Mahesh B Patel  
    Member  
    F-001, Shilalekh Tower, Opposite Police Stadium,  
    Shahi Baug, Ahmedabad 380004, Gujarat

13. Dr DG Mhaisekar  
    Member  
    Vice Chancellor, Maharashtra University of Health Sciences,  
    Dindori Road, Mhasrul, Nashik 422004, Maharashtra
14. Dr N Gopalkrishnan  
Professor (Nephrology), Madras Medical College,  
Chennai, Tamil Nadu 600003 

15. Dr DS Gangwar  
Additional Secretary and Financial Adviser  
Ministry of Health and Family Welfare, Government of India  
Nirman Bhawan, New Delhi 110011  

Shri R K Vats  
(from 26 November 2018 to 13 March 2019)  

Shrimati Vijaya Srivastava  
(up to 25 November 2018)  

16. Professor Randeep Guleria  
Director, AIIMS 

17. Shri Sudhansh Pant  
Joint Secretary, Ministry of Health and Family Welfare,  
Government of India, Nirman Bhawan, New Delhi 110011  

18. Professor V K Bahl  
Dean, AIIMS  

19. Dr DK Sharma  
Medical Superintendent, AIIMS  

GOVERNING BODY  
1. Shri Jagat Prakash Nadda  
President  

2. Professor Ram Gopal Yadav, MP (Rajya Sabha)  
Member  

3. Shri Ramesh Bidhuri, MP (Lok Sabha)  
Member  

4. Shrimati Preeti Sudan  
Member  

5. Shri R Subrahmanyam  
Member  

6. Dr DS Rana  
Member  

7. Dr S Venkatesh  
Dr Jagdish Prasad  
Member (from 17 June 2018 to 16 June 2018)  

8. Dr Mahesh B Patel  
Member  

9. Dr DG Mhaisekar  
Member  

10. Dr DS Gangwar  
Shri RK Vats  
Member (from 13 March 2019 to 13 March 2019)  

Shrimati Vijaya Srivastava  
(up to 25 November 2018)  

11. Professor Randeep Guleria  
Director, AIIMS  

12. Professor VK Bahl  
Dean, AIIMS  

Special Invitee  

Special Invitee  

Special Invitee
<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.</td>
<td>Dr DK Sharma</td>
<td>Medical Superintendent, AIIMS Special Invitee</td>
</tr>
</tbody>
</table>

**STANDING FINANCE COMMITTEE**

1. Shrimati Preeti Sudan                                          Chairperson
2. Shri Parvesh Sahib Singh Verma, MP (Lok Sabha)                 Member
3. Dr S Venkatesh                                                Member (from 17 June 2018)
   Dr Jagdish Prasad                                             Member (up to 16 June 2018)
4. Shri R Subrahmanyan                                          Member
5. Dr MK Bhan                                                   Member
6. Dr DG Mhaisekar                                              Member
7. Dr DS Gangwar                                                Member (from 13 March 2019)
   Shri RK Vats                                                   (from 26 November 2018 to 13 March 2019)
   Shrimati Vijaya Srivastava                                    (up to 25 November 2018)
8. Professor Randeep Guleria                                     Member Secretary

**STANDING ACADEMIC COMMITTEE**

1. Dr Mahesh B Patel                                             Chairperson
2. Dr S Venkatesh                                                Member (from 17 June 2018)
   Dr Jagdish Prasad                                             Member (up to 16 June 2018)
3. Dr MK Bhan                                                   Member
4. Shri R Subrahmanyan                                          Member
5. Dr DG Mhaisekar                                              Member
6. Dr DS Rana                                                   Member
7. Dr (Smt) Vijay Laxmi Saxena                                  Member
8. Professor Randeep Guleria                                     Member Secretary

**STANDING ESTATE COMMITTEE**

1. Professor Ram Gopal Yadav, MP (Rajya Sabha)                   Chairman
2. Shri Parvesh Sahib Singh Verma, MP (Lok Sabha)                 Member
3. Dr DS Rana                                                   Member
4. Dr S Venkatesh                                               Member (from 17 June 2018)
   Dr Jagdish Prasad                                            Member (up to 16 June 2018)
5. Professor Yogesh Kumar Tyagi                                 Member
6. Dr DS Gangwar Member (from 13 March 2019)
   Shri R K Vats (from 26 November 2018 to 13 March 2019)
   Shrimati Vijaya Srivastava (up to 25 November 2018)
7. Dr N Gopalkrishnan Member
8. Professor Randeep Guleria Member Secretary

STANDING HOSPITAL AFFAIRS COMMITTEE
1. Shri Parvesh Sahib Singh Verma, MP (Lok Sabha) Chairman
2. Shri Ramesh Bidhuri, MP (Lok Sabha) Member
3. Dr DS Rana Member
4. Dr (Smt) Vijay Laxmi Saxena Member
5. Dr MK Bhan Member
6. Dr DG Mhaisekar Member
7. Dr N Gopalkrishnan Member
8. Professor Randeep Guleria Member Secretary

STANDING SELECTION COMMITTEE
1. Dr DS Rana Chairman
2. Dr S Venkatesh Member (from 17 June 2018)
   Dr Jagdish Prasad Member (up to 16 June 2018)
3. Dr DG Mhaisekar Member
4. Professor MK Bhan Member
5. Dr Mahesh B Patel Member
6. Shri R Subrahmanyam Member (from 28 February 2018)
7. Dr N Gopalkrishnan Member
8. Professor Randeep Guleria Member Secretary
The Academic Section develops policy and plans, and executes academic activities. These activities encompass the undergraduate, postgraduate and doctoral programmes for medical, nursing and paramedical courses. These activities are conducted by the undergraduate, postgraduate and paramedical cells.

**UNDERGRADUATE EDUCATION**

The section handles post-admission formalities for new students, develops and revises curricula and administers teaching programmes including internal assessment of undergraduate students admitted to various courses. The courses include MBBS, BSc (Hons) Medical Technology in Radiography, Ophthalmic Techniques, Operation Theatre Technology, BSc Dental Hygiene, BSc Dental Operating Room Assistant (DORA), BSc Nursing (Post-certificate) and BSc (Hons) Nursing courses.

**Bachelor of Medicine and Bachelor of Surgery (MBBS)**

The pattern of education in MBBS course was reviewed and re-structured in July 2004. The MBBS course is of 5½ years duration and comprises of 3 phases and internship. The details are as follows:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Duration (years)</th>
<th>Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>One</td>
<td>Pre-clinical</td>
</tr>
<tr>
<td>Second</td>
<td>One-and-a-half</td>
<td>Para-clinical</td>
</tr>
<tr>
<td>Third</td>
<td>Two</td>
<td>Clinical</td>
</tr>
<tr>
<td>Internship</td>
<td>One</td>
<td>Compulsory rotation in various departments</td>
</tr>
</tbody>
</table>

In MBBS course, at present, every year 100 Indian students (50 General Category, 15 Scheduled Caste, 8 Scheduled Tribe and 27 Other Backward Classes) are admitted. These admissions were made based on merit through an All-India Entrance Examination. For Orthopaedic Physically Handicapped (OPH) candidates 5% reservation was provided on horizontal basis. For these 100 seats, 3,64,242 applications were received and 2,84,737 candidates appeared in the entrance examination held on 26 and 27 May 2018. The MBBS students on rolls as on 31 March 2019 were 434 including 69 interns. There is a provision for admitting 7 foreign nationals on the recommendations of the Ministry of External Affairs, Government of India and 7 foreign nationals were recommended for admission.

In this year, 9 meritorious MBBS students were awarded scholarships for securing first, second and third positions in the first, second and final phase of professional examinations.

**Paramedical and Nursing Education**

In 2018-2019, 77 students (39 General Category, 12 Scheduled Caste, 6 Scheduled Tribe and 19 Other Backward Classes, 1 Foreign National) were admitted in BSc (Hons) Nursing course. For BSc Nursing (Post-certificate) course, 26 students (14 General Category, 3 Scheduled Caste, 1 Scheduled Tribe, 7 Other Backward Classes and 1 Foreign National Candidates) were admitted.

For BSc (Hons) Ophthalmic Techniques, 20 students (10 General Category, 3 Scheduled Caste, 1 Scheduled Tribe and 5 Other Backward Classes, 1 Foreign National), BSc (Hons) Medical Technology in Radiography, 10 students (5 General Category, 1 Scheduled Caste, 1 Scheduled Tribe, 2 Other Backward Classes and 1 Foreign National), Operation Theatre Technology 20 students (13 General Category, 2 Scheduled Tribes and 5 Other Backward Classes), BSc Dental Hygiene 4 students (2 General Category, 1 Scheduled Caste and 1 Other Backward Class, and BSc Dental Operating Room Assistant (DORA) 8 students (4 General Category, 1 Scheduled Tribe and 3 Other Backward Classes were admitted. The number of students on rolls in these courses as on 31 March 2019 were:
<table>
<thead>
<tr>
<th>Course</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nursing</strong></td>
<td></td>
</tr>
<tr>
<td>BSc Nursing (Post-basic)</td>
<td>50</td>
</tr>
<tr>
<td>BSc (Hons) Nursing</td>
<td>296</td>
</tr>
<tr>
<td><strong>Paramedical</strong></td>
<td></td>
</tr>
<tr>
<td>BSc (Hons) Ophthalmic Techniques</td>
<td>72</td>
</tr>
<tr>
<td>BSc (Hons) Medical Technology in Radiography</td>
<td>38</td>
</tr>
<tr>
<td>BSc Operation Theatre Technology</td>
<td>20</td>
</tr>
<tr>
<td>BSc Dental Hygiene</td>
<td>4</td>
</tr>
<tr>
<td>BSc Dental Operating Room Assistant (DORA)</td>
<td>8</td>
</tr>
</tbody>
</table>

**POSTGRADUATE EDUCATION**

The Academic Section looks after all activities pertaining to admission and training of postgraduate students including junior and senior residents. It handles all activities related to Fellowship, PhD, DM, MCh, MD, MS, MDS, MCh/DM (Direct 6 years course), MBiotechnology (MBiotech) and MSc courses in different disciplines.

Admissions to all postgraduate courses for Indian nationals as well as sponsored candidates are made through an All-India Entrance Examination held twice a year for all postgraduate courses except MSc and MBiotech courses, for which the examination is held once a year. Under sponsored category, foreign nationals are admitted through the same entrance examination. In 2016-2017, 716 students were admitted in various courses. The number of postgraduate and doctoral students on roll as on 31 March 2019 was 1844.

**Admissions in various courses**

<table>
<thead>
<tr>
<th>Name of course</th>
<th>July 2018</th>
<th>January 2019</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSc/MBiotech/MSc Nursing (August)*</td>
<td>94</td>
<td>–</td>
<td>94</td>
</tr>
<tr>
<td>MD/MS/MDS and MCh/DM (6 years)</td>
<td>223</td>
<td>135</td>
<td>358</td>
</tr>
<tr>
<td>DM/MCh</td>
<td>89</td>
<td>98</td>
<td>187</td>
</tr>
<tr>
<td>PhD</td>
<td>15</td>
<td>38</td>
<td>53</td>
</tr>
<tr>
<td>Fellowship programme</td>
<td>27</td>
<td>24</td>
<td>51</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>448</strong></td>
<td><strong>295</strong></td>
<td><strong>743</strong></td>
</tr>
</tbody>
</table>

*Admissions are done once in a year.

**Postgraduate students on rolls**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Name of course</th>
<th>Number of students on roll</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>PhD</td>
<td>329</td>
</tr>
<tr>
<td>2.</td>
<td>DM</td>
<td>389</td>
</tr>
<tr>
<td>3.</td>
<td>MCh</td>
<td>180</td>
</tr>
<tr>
<td>4.</td>
<td>Fellowship programme</td>
<td>51</td>
</tr>
<tr>
<td>5.</td>
<td>MD</td>
<td>720</td>
</tr>
<tr>
<td>5.</td>
<td>MS</td>
<td>98</td>
</tr>
<tr>
<td>6.</td>
<td>MDS</td>
<td>58</td>
</tr>
<tr>
<td>7.</td>
<td>MSc/MBiotech/MSc Nursing</td>
<td>166</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>1,991</strong></td>
</tr>
</tbody>
</table>

**Subject-wise distribution of PhD students on rolls**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Subject</th>
<th>Open</th>
<th>Sponsored</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Onco Anaesthesiology (Dr BRA IRCH)</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Anaesthesiology</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3.</td>
<td>Anatomy</td>
<td>24</td>
<td>0</td>
</tr>
<tr>
<td>4.</td>
<td>Biochemistry</td>
<td>47</td>
<td>0</td>
</tr>
<tr>
<td>5.</td>
<td>Biophysics</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>S. No.</td>
<td>Subject</td>
<td>Open</td>
<td>Sponsored</td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------------------</td>
<td>------</td>
<td>-----------</td>
</tr>
<tr>
<td>6</td>
<td>Biostatistics</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>Biotechnology</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>Blood Bank</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Cardiac Anaesthesiology</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Dermatology and Venereology</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>Cardiac Biochemistry</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>Cardiothoracic Centre (Stem Cell)</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>College of Nursing</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>Centre for Community Medicine</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>Community Ophthalmology (Dr RP Centre)</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>Dental Surgery</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>Cardiothoracic and Vascular Surgery</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>Cardiology</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>Endocrinology and Metabolism</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>Forensic Medicine</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>21</td>
<td>Gastroenterology and Human Nutrition Unit</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>22</td>
<td>Gynaecology</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>23</td>
<td>Haematology</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>24</td>
<td>Laboratory Medicine</td>
<td>4</td>
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<tr>
<td>25</td>
<td>Laboratory Oncology</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>26</td>
<td>Medical Oncology (Dr BRA IRCH)</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>27</td>
<td>Medical Physics (Dr BRA IRCH)</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>28</td>
<td>Medicine</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>29</td>
<td>Microbiology</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>Neurobiochemistry</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>31</td>
<td>Neuropsychology (Neurosciences)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>32</td>
<td>Neurology</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>33</td>
<td>Neurosurgery</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>34</td>
<td>Nuclear Magnetic Resonance</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>35</td>
<td>Nuclear Medicine</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>36</td>
<td>Neuroradiology</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>37</td>
<td>Ocular Biochemistry (Dr RP Centre)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>38</td>
<td>Ocular Microbiology (Dr RP Centre)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>39</td>
<td>Ocular Pathology (Dr RP Centre)</td>
<td>4</td>
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Subject-wise distribution of DM students on rolls

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Subject-wise distribution of DM (6 years course) on rolls

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Subject-wise distribution of MCh students on rolls

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Subject-wise distribution of MCh (6 years course) on rolls

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Subject-wise distribution of fellowship students on rolls

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Subject-wise distribution of MD/MS/MDS students on roll

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**Subject-wise distribution of MSc students on rolls**

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### Subject-wise distribution of MSc (Nursing) students on rolls

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</table>

### TRAINING PROGRAMMES

There is a provision for short term, long term and elective training for students and employees of various organizations in India as well as abroad. During 2018-2019, 694 persons underwent training as listed below:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Training In-service</th>
<th>Number of trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Short Term Training: Indian nationals</td>
<td>632</td>
</tr>
<tr>
<td>2.</td>
<td>Short Term Training: Foreign nationals</td>
<td>36</td>
</tr>
<tr>
<td>3.</td>
<td>Long Term Training: Indian nationals</td>
<td>6</td>
</tr>
<tr>
<td>4.</td>
<td>Elective Training: Foreign nationals (UG students)</td>
<td>16</td>
</tr>
<tr>
<td>5.</td>
<td>WHO Fellows: Indian nationals</td>
<td>2</td>
</tr>
<tr>
<td>6.</td>
<td>WHO Fellows: Foreign nationals</td>
<td>2</td>
</tr>
<tr>
<td>7.</td>
<td>Permission for organizing Conferences/Workshops</td>
<td>215</td>
</tr>
</tbody>
</table>

### COMMITTEE MEETINGS

The Academic Section organized meetings of the Academic Committee, Staff Council, Dean’s Committee, Faculty and Research Presentations as per details given below:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Committee</th>
<th>Number of Meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Academic Committee</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Staff Council</td>
<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>Dean’s Committee</td>
<td>1</td>
</tr>
<tr>
<td>4.</td>
<td>Faculty (General Discussions)</td>
<td>7</td>
</tr>
<tr>
<td>5.</td>
<td>Oration</td>
<td>9</td>
</tr>
<tr>
<td>6.</td>
<td>Research Presentations</td>
<td>8</td>
</tr>
</tbody>
</table>

### CONVOCATION

The 46th Annual Convocation was held on 7 December 2018 at the Jawaharlal Auditorium, AIIMS, New Delhi. The Honorable Vice-President of India Shri M Venkaiah Naidu addressed the Convocation. He distributed Institute Medals/Awards to outstanding meritorious students and delivered the Convocation address. The President, AIIMS, and Honourable Minister of Health and Family Welfare, Government of India, Shri JP Nadda distributed the degrees.
## 4. Examination Section

**Dean (Examinations)**  
S Datta Gupta

**Associate Dean (Examinations)**  
Ashok Kumar Jaryal

**Assistant Controller of Examinations**  
OP Sharma

**Accounts Officer**  
DK Gupta

During the period under review (2018-2019), the Examination Section conducted the following Professional and Entrance Examinations:

### Postgraduate and Undergraduate Professional Examinations

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Month and year</th>
<th>Examination</th>
<th>Intended to appear</th>
<th>Absent</th>
<th>Passed</th>
<th>Failed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>May 2018</td>
<td>DM</td>
<td>26</td>
<td>-</td>
<td>26</td>
<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>-do-</td>
<td>MCh</td>
<td>15</td>
<td>-</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>3.</td>
<td>-do-</td>
<td>MD</td>
<td>121</td>
<td>2</td>
<td>112</td>
<td>7</td>
</tr>
<tr>
<td>4.</td>
<td>-do-</td>
<td>MS</td>
<td>14</td>
<td>-</td>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>5.</td>
<td>-do-</td>
<td>MDS</td>
<td>8</td>
<td>-</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>6.</td>
<td>-do-</td>
<td>Fellowship programme</td>
<td>10</td>
<td>-</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>7.</td>
<td>-do-</td>
<td>MSc courses</td>
<td>26</td>
<td>1</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>8.</td>
<td>-do-</td>
<td>MBiotechnology</td>
<td>13</td>
<td>-</td>
<td>13</td>
<td>-</td>
</tr>
<tr>
<td>9.</td>
<td>-do-</td>
<td>MSc (Nursing) Phase-I</td>
<td>21</td>
<td>-</td>
<td>21</td>
<td>-</td>
</tr>
<tr>
<td>10.</td>
<td>-do-</td>
<td>MSc (Nursing) Phase-II</td>
<td>21</td>
<td>-</td>
<td>21</td>
<td>-</td>
</tr>
<tr>
<td>11.</td>
<td>-do-</td>
<td>Second MBBS (Supplementary)</td>
<td>9</td>
<td>-</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>12.</td>
<td>-do-</td>
<td>Final MBBS (Supplementary)</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>13.</td>
<td>-do-</td>
<td>BSc Nursing (Post-Certificate) Phase-I</td>
<td>26</td>
<td>-</td>
<td>23</td>
<td>3</td>
</tr>
<tr>
<td>14.</td>
<td>-do-</td>
<td>BSc Nursing (Post-Certificate) Phase-II</td>
<td>24</td>
<td>-</td>
<td>24</td>
<td>-</td>
</tr>
<tr>
<td>15.</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase-I</td>
<td>82</td>
<td>-</td>
<td>65</td>
<td>16</td>
</tr>
<tr>
<td>16.</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase-II</td>
<td>63</td>
<td>-</td>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>17.</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase-III</td>
<td>78</td>
<td>-</td>
<td>77</td>
<td>1 NE</td>
</tr>
<tr>
<td>18.</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase-IV</td>
<td>71</td>
<td>-</td>
<td>67</td>
<td>1 NE</td>
</tr>
<tr>
<td>19.</td>
<td><strong>July 2018</strong></td>
<td>First Professional MBBS</td>
<td>116</td>
<td>4</td>
<td>94</td>
<td>16</td>
</tr>
<tr>
<td>20.</td>
<td>-do-</td>
<td>Bachelor of Optometry Phase-I</td>
<td>22</td>
<td>1</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>21.</td>
<td>-do-</td>
<td>Bachelor of Optometry Phase-II</td>
<td>14</td>
<td>-</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>22.</td>
<td>-do-</td>
<td>Bachelor of Optometry Phase-III</td>
<td>16</td>
<td>-</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>23.</td>
<td>-do-</td>
<td>BSc (H) Medical Tech. in Radiography Phase-I</td>
<td>12</td>
<td>-</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>S. No.</td>
<td>Month and year</td>
<td>Examination</td>
<td>Intended to appear</td>
<td>Absent</td>
<td>Passed</td>
<td>Failed</td>
</tr>
<tr>
<td>-------</td>
<td>----------------</td>
<td>-------------</td>
<td>--------------------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>24.</td>
<td>-do-</td>
<td>BSc (H) Medical Tech. in Radiography Phase-II</td>
<td>8</td>
<td>-</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>25.</td>
<td>-do-</td>
<td>BSc (H) Medical Tech. in Radiography Phase-III</td>
<td>9</td>
<td>-</td>
<td>9</td>
<td>-</td>
</tr>
<tr>
<td>26.</td>
<td>August 2018</td>
<td>First MBBS Professional (Supplementary)</td>
<td>19</td>
<td>3</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>27.</td>
<td>November 2018</td>
<td>BSc (Hons) Ophthalmic Techniques Phase-I (Supplementary)</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>28.</td>
<td>-do-</td>
<td>BSc (Hons) Ophthalmic Techniques Phase-II (Supplementary)</td>
<td>3</td>
<td>-</td>
<td>3</td>
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</tr>
<tr>
<td>29.</td>
<td>-do-</td>
<td>BSc (Hons) Ophthalmic Techniques Phase-III (Supplementary)</td>
<td>4</td>
<td>-</td>
<td>2</td>
<td>2</td>
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<tr>
<td>30.</td>
<td>-do-</td>
<td>BSc (Hons) Medical Techniques in Radiography Phase-I (Supplementary)</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>31.</td>
<td>December 2018</td>
<td>Second MBBS</td>
<td>76</td>
<td>4</td>
<td>67</td>
<td>5</td>
</tr>
<tr>
<td>32.</td>
<td>-do-</td>
<td>Final MBBS</td>
<td>77</td>
<td>1</td>
<td>68</td>
<td>8</td>
</tr>
<tr>
<td>33.</td>
<td>-do-</td>
<td>BSc (Post Basic) Nursing Phase-I (Supplementary)</td>
<td>3</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>34.</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase-I (Supplementary)</td>
<td>16</td>
<td>-</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>35.</td>
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<td>BSc (Hons) Nursing Phase-II (Supplementary)</td>
<td>4</td>
<td>-</td>
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</tr>
<tr>
<td>36.</td>
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<td>BSc (Hons) Nursing Phase-III (Supplementary)</td>
<td>1</td>
<td>-</td>
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</tr>
<tr>
<td>37.</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase-IV (Supplementary)</td>
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<td>-</td>
<td>18</td>
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</tr>
<tr>
<td>38.</td>
<td>-do-</td>
<td>DM</td>
<td>57</td>
<td>-</td>
<td>56</td>
<td>1 RW</td>
</tr>
<tr>
<td>39.</td>
<td>-do-</td>
<td>MCh</td>
<td>23</td>
<td>-</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>40.</td>
<td>-do-</td>
<td>MD</td>
<td>58</td>
<td>-</td>
<td>57</td>
<td>1</td>
</tr>
<tr>
<td>41.</td>
<td>-do-</td>
<td>MS</td>
<td>9</td>
<td>-</td>
<td>9</td>
<td>-</td>
</tr>
<tr>
<td>42.</td>
<td>-do-</td>
<td>MDS</td>
<td>6</td>
<td>-</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>43.</td>
<td>-do-</td>
<td>Fellowship Programme</td>
<td>15</td>
<td>1</td>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>44.</td>
<td>-do-</td>
<td>MSc courses</td>
<td>8</td>
<td>2</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>45.</td>
<td>January 2019</td>
<td>Final MBBS (Compartmental Examination)</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td><strong>Grand Total</strong></td>
<td></td>
<td>1,236</td>
<td>22</td>
<td>1,112</td>
<td>93+8+1</td>
</tr>
</tbody>
</table>

Entrance Examinations for Undergraduate and Postgraduate courses

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Courses</th>
<th>Date of examination</th>
<th>Candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Applied</td>
</tr>
<tr>
<td>1.</td>
<td>MD/MS/MDS (AIIMS) July 2018</td>
<td>6 May 2018</td>
<td>35,947</td>
</tr>
<tr>
<td>2.</td>
<td>DM/MCh/Fellowship programme/MD (Hospital Administration) July 2018</td>
<td>7 April 2018</td>
<td>3,318</td>
</tr>
<tr>
<td>3.</td>
<td>Fellowship programme July 2018</td>
<td>14 April 2018</td>
<td>121</td>
</tr>
<tr>
<td>4.</td>
<td>MBBS (AIIMS) August 2018</td>
<td>26-27 May 2018</td>
<td>4,60,889</td>
</tr>
<tr>
<td>5.</td>
<td>Online BSc (Hons) Nursing 2018</td>
<td>24 June 2018</td>
<td>13,831</td>
</tr>
<tr>
<td>6.</td>
<td>Online BSc Nursing (Post-Basic) 2018</td>
<td>2 June 2018</td>
<td>574</td>
</tr>
<tr>
<td>S. No.</td>
<td>Courses</td>
<td>Date of examination</td>
<td>Candidates Applied</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------------------------------------------------------</td>
<td>---------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>7.</td>
<td>Online BSc (Hons) Paramedical Courses 2018</td>
<td>9 June 2018</td>
<td>5,089</td>
</tr>
<tr>
<td>8.</td>
<td>Online MSc Courses 2018</td>
<td>2 June 2018</td>
<td>995</td>
</tr>
<tr>
<td>9.</td>
<td>Online MSc Nursing 2018</td>
<td>9 June 2018</td>
<td>3,324</td>
</tr>
<tr>
<td>10.</td>
<td>Online MBiotechnology Entrance Examination 2018</td>
<td>2 June 2018</td>
<td>582</td>
</tr>
<tr>
<td>11.</td>
<td>Senior Residents Recruitment Examination, July 2018 Session</td>
<td>17 June 2018</td>
<td>2,116</td>
</tr>
<tr>
<td>12.</td>
<td>PhD July Session 2018</td>
<td>13 October 2018</td>
<td>360</td>
</tr>
<tr>
<td>13.</td>
<td>Senior Residents Recruitment Examination January 2019</td>
<td>25 November 2018</td>
<td>1,143</td>
</tr>
<tr>
<td>14.</td>
<td>MD/MS/MDS (AIIMS) January 2019</td>
<td>18 November 2018</td>
<td>53,245</td>
</tr>
<tr>
<td>15.</td>
<td>DM/MCh/MD (Hospital Administration) January 2019</td>
<td>4 November 2018</td>
<td>3,117</td>
</tr>
<tr>
<td>16.</td>
<td>PhD January 2019</td>
<td>January 2019 Session will be conducted along with July 2019 Session on 21 May 2019</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Fellowship programme, January 2019</td>
<td>11 November 2017</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td><strong>Grand Total</strong></td>
<td></td>
<td><strong>5,84,770</strong></td>
</tr>
</tbody>
</table>

Candidates who passed PhD Viva-Voce examination: 66 (Sixty-six)

Examinations for Recruitment

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of examination</th>
<th>Online CBT* examination</th>
<th>Number of applicants</th>
<th>Number of those who appeared</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Medical Social Service Officer Grade-II</td>
<td>8 September 2018</td>
<td>285</td>
<td>111</td>
</tr>
<tr>
<td>2.</td>
<td>Departmental Examination - Office Superintendent</td>
<td>11 August 2018</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>Departmental Examination - Private secretary</td>
<td>18 August 2018</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>4.</td>
<td>Departmental Examination - Stenographer</td>
<td>18 August 2018</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>5.</td>
<td>Technician Radiology</td>
<td>8 September 2018</td>
<td>841</td>
<td>589</td>
</tr>
<tr>
<td>6.</td>
<td>AIIMS Nursing Officer</td>
<td>16 September 2018</td>
<td>55,710</td>
<td>31,502</td>
</tr>
<tr>
<td>7.</td>
<td>Ophthalmic Technician Grade-I</td>
<td>23 September 2018</td>
<td>176</td>
<td>95</td>
</tr>
<tr>
<td>8.</td>
<td>Assistant Dietician</td>
<td>23 September 2018</td>
<td>156</td>
<td>63</td>
</tr>
<tr>
<td>9.</td>
<td>Transplant Coordinator</td>
<td>6 October 2018</td>
<td>235</td>
<td>89</td>
</tr>
<tr>
<td>10.</td>
<td>Technical Officer (CWS)</td>
<td>6 October 2018</td>
<td>335</td>
<td>92</td>
</tr>
<tr>
<td>11.</td>
<td>Junior Engineer (Civil)</td>
<td>30 November 2018</td>
<td>1,625</td>
<td>485</td>
</tr>
<tr>
<td>12.</td>
<td>Junior Engineer (Electrical)</td>
<td>30 November 2018</td>
<td>662</td>
<td>167</td>
</tr>
<tr>
<td>14.</td>
<td>Technical Assistant (ENT)</td>
<td>12 January 2019</td>
<td>104</td>
<td>36</td>
</tr>
<tr>
<td>15.</td>
<td>Technician (Radiotherapy) Grade-II</td>
<td>12 January 2019</td>
<td>153</td>
<td>84</td>
</tr>
<tr>
<td>17.</td>
<td>Tutor in Nursing (CBT)</td>
<td>31 January 2019</td>
<td>1,172</td>
<td>388</td>
</tr>
<tr>
<td>18.</td>
<td>Re-examination: Nursing Officer for central government in Delhi</td>
<td>28 February 2019</td>
<td>54,854</td>
<td>34,188</td>
</tr>
<tr>
<td>19.</td>
<td>Scientist/Clinical Psychologist</td>
<td>9 March 2019</td>
<td>533</td>
<td>147</td>
</tr>
<tr>
<td>20.</td>
<td>Junior Hindi Translator (Stage-2)</td>
<td>25 March 2019</td>
<td>65</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>1,17,433</strong></td>
<td><strong>68,378</strong></td>
</tr>
</tbody>
</table>

*computer based test (CBT)
Entrance Examinations conducted

1. AIIMS PG Entrance Examination for admission to MD/MS/MDS courses was conducted on 6 May 2018 for July 2018 session at 88 centres (Delhi 6, Outstation 82) and 18 November 2018 for January 2019 session at 113 centres (Delhi 9, Outstation 104), respectively. The results were declared on 12 May 2018 and 23 November 2018, respectively.

2. Selections for various Post-Doctoral (super-specialty) courses, viz. DM/MCh/MD (Hospital Administration) for July 2018 and January 2019 sessions and Departmental Assessment were done on 23 April 2018 to 25 April 2018 for July 2018 session and 15 November 2018 to 17 November 2018 for January 2019 session.

3. The Institute also conducted online test for the Post of Senior Residents/Senior Demonstrators for July 2018 session on 17 June 2018 and January 2019 session on 25 November 2018, respectively.

4. Selections of candidates for registration to PhD programme for July 2018 and Departmental Assessment was done on 2 October 2018.

5. The Entrance Examination for admission to MBBS course of AIIMS including eight new AIIMS for August 2018 session was held in 317 (local 14 and outstation 303) centres in 154 cities of India on 26 and 27 May 2018 (in 2 days, 2 shifts each).

6. BSc (Hons) Nursing Entrance Examination was held in Delhi and six AIIMS (Bhopal, Bhubaneswar, Jodhpur, Patna, Raipur and Rishikesh) on 24 June 2018 in CBT online mode.

7. The Entrance Examination for admission to MSc courses and MBiotechnology courses August 2018 session was held in Delhi on 2 June 2018 in online mode.

8. The Entrance Examination for admission to MSc Nursing course was held on 9 June 2018 in Delhi only in CBT online mode. The admission was made by allotment of seats on merit through counseling held on 1 August 2018.

9. BSc Nursing (Post-Basic) Entrance Examination was held in Delhi in CBT online mode on 2 June 2018 followed by the personal assessment of candidates on 20 June 2018.

10. The Entrance Examination for admission to Para-Medical courses, viz. BSc (Hons) in Bachelor of Optometry and BSc (Hons) Medical Technology in Radiography, BSc Course in Dental Operating Room Assistant (DORA), BSc course in Dental Hygiene, BSc course in Operation Theatre Technology (OTT), Medical Laboratory Technology (MLT), BSc in Operation Theatre and Anaesthesiology Technology (OTAT), BSc in Medical Technology and Imaging Therapy for August 2018 session were held in Delhi in CBT online mode on 10 June 2018. The admissions to these two courses were made by allotment of seats on merit through counseling on 10 and 19 July 2018.

11. The Entrance Examination for Fellowship programme for July 2018 session and January 2019 session were conducted in Delhi on 14 April 2018 and 11 November 2018, respectively.

Participation in other events

1. The Examination Section introduced online counseling for admission to AIIMS-PG, MBBS, BSc (Hons) Para-Medical, MSc (Nursing) courses with the participation of Faculty and Staff of Academic Section. Examination Section also actively participated in personal assessment for BSc (Nursing) Post-Certificate course.

2. Examination Section is also providing technical expertise to various Universities and Institutions in India for conduct of their Entrance Examinations.

SIGNIFICANT EVENTS

The Examination Section, AIIMS plays a very pivotal role in conduction of AIIMS Entrance and Recruitment Examinations. It is important to mention here that Academic Entrance Examinations are conducted for Admission of Students in various UG and PG courses of AIIMS, New Delhi. The Recruitment Examinations are conducted for filling the vacant positions of staff starting from Group-C to Group-A of AIIMS, New Delhi. Lastly the Professional Examination are conducted a minimum of twice in a year.

The Academic Entrance Examinations of AIIMS-PG course, MBBS course, BSc Nursing, MSc courses and DM/MCh courses etc. are conducted for Admission of students in various under-graduate and post-graduate courses of AIIMS, New Delhi as well as for other six AIIMS situated at Bhopal, Bhubaneswar, Jodhpur, Patna, Raipur and Rishikesh (MBBS and BSc Nursing for AIIMS-Mangalagiri and Nagpur also) as per the direction of Ministry of Health and Family Welfare, Government of India, New Delhi. Sometimes as per direction of the Ministry, in addition to other examinations some Recruitment Examinations are being conducted to cater the needs of Ministry and other AIIMS. However, from the Academic Year 2019 onwards for MBBS course-2019, the Academic Entrance Examination will be conducted for fifteen AIIMS including AIIMS, New Delhi. The new additions will be AIIMS-Bhatinda, Deoghar, Kalyani, Gorakhpur, Rai Bareilly and Telangana.

To conduct these examinations in more transparent, secure and efficient manner, Examination Section has revamped its conduct of Examination System from 2015 onwards. Since then the entire examinations either entrance or recruitment are
being conducted only through online (CBT) Mode. In the year 2018-2019, Examination Section has held 20 recruitment examinations in addition to 17 Entrance Examinations.

To understand the quantum of work at Examination Section, MBBS Entrance Examination-2018 was conducted through online (CBT) mode in 154 cities, 317 centers spread all over the country for 4,60,889 candidates in two shifts. It was the largest online Examination in Medical Education of India conducted in a single day.

During 2018-2019, the Examination Section witnessed some significant events in improving the quality of conduction of examinations as well as improving the governance in the section. The details are as under:

• To improve the quality of examinations in terms of transparency, vigilance and fairness, the Examination Section has made mandatory installation of CCTVs in all the Entrance and Recruitment Examinations. To further improve transparency, vigil and fairness live streaming of CCTVs has been started for large examinations. For this purpose, a minimum of two examination centres were allocated to one staff on computer in the Examination Control Room at Examination Section. AIIMS, New Delhi and throughout the conduct of the examination. This type of monitoring has happened for the first time in India for any examination. This type of surveillance service has been used in the Nursing Officer examination for Central Government in Delhi held on 28 February 2019 across the country.

• To optimum use of both the Examination Halls situated in the Examination Section, some Online Recruitment and Academic Examinations have conducted in it. Even for Professional Examination, Online MCQ Examinations have also conducted in it.

• To improve the payment system during online Registration process in addition to SBI, the Paygov, Payment gateway has been launched. Now, candidates do not have any problem regarding their payment.

• The Examination Section has initiated booking hotels and Air tickets for External Examiners, who come from across the country for conducting practical/viva-voce examinations, etc. This process has helped a lot of examiners, departments and other stakeholders as they do not have to pay any money from their pocket. All the processes are completed by the Examination Section through a service provider on credit basis.
5. General Administration

Deputy Director (Administration)
Subhasish Panda

Deputy Secretary
M Bajpai (up to 26 June 2018) Dhirendra Verma (from 27 June 2018)

Chief Administrative Officer
Sanjay Kumar Arya

Superintending Engineers
Manjul Rastogi
Hridesh Kumar (from 25 February 2019)

Deputy Chief Security Officers
RS Rawat
Deepak Kumar (from 17 September 2018)

Executive Engineers
Vidya Bhushan Harpal Singh (from 5 February 2019)
Joginder Malhotra

Senior Administrative Officers
Deo Nath Sah
Narender Kumar (from 24 September 2018) Renu Bhardwaj (from 24 September 2018)

Administrative Officers
SL Chamoli (from 10 August 2018) Pallav Kumar Chitej Lalit Oraon
Chakravarthy EVS Satish Kumar Singh Bhupinder Singh Gill
Raj Kumar Rajendran Pillai G Anita Tete
Nikhil Bhatnagar BK Singh Kushal Kumar (from 13 December 2018)
Ealias PI (from 30 October 2018)

Assistant Administrative Officers
Bhoop Singh Narender Kumar Gupta
Sasidharan Nair KG Mohanan PS
Saroj Pant (from 12 December 2018) RK Sharma (from 17 December 2018)

Senior Stores Officer
Rakesh Kumar (from 1 August 2018)

Stores Officers
Narender Kumar Bhawani Ram Arvind Kumar Sharma
Manohar Arya (from 1 January 2019) Archana Sharma (from 1 January 2019)
Kamal Singh (from 3 January 2019)
The General Administration, including Personnel and Establishment Security, Estate, matters related to Engineering Services Department, Stores, Vigilance and Public Relations activities of the Institute are supervised by the Deputy Director (Administration). There are various branches looking after these areas. Each branch is headed by a senior officer with supportive officers and staff members.

Responsibilities of Establishment Section and General Administration include appointments, arranging meetings of the statutory committees, management of estate and property, purchase of equipment, materials and consumables, security arrangements, employees’ welfare, etc.

The total sanctioned staff for the institute is 11,767 and includes staff of all the Centres/Main Hospital/D.O. The number of group-wise sanctioned strength and staff in-position is mentioned below:

<table>
<thead>
<tr>
<th>S. no.</th>
<th>Category/Group</th>
<th>Sanctioned strength</th>
<th>In-position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Faculty</td>
<td>1,042</td>
<td>671</td>
</tr>
<tr>
<td>2.</td>
<td>A (Non-faculty)</td>
<td>646</td>
<td>452</td>
</tr>
<tr>
<td>3.</td>
<td>B</td>
<td>6,704</td>
<td>5,480</td>
</tr>
<tr>
<td>4.</td>
<td>C and erstwhile D</td>
<td>4,958</td>
<td>4,024</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>12,308</td>
<td>9,956</td>
</tr>
</tbody>
</table>

SC/ST Cell

1. Liaison Officer  
   Dr Rajpal, Professor of Ophthalmology  
   Dr RP Centre, AIIMS

2. Administrative Officer  
   Ms Anita Tete

3. Upper Division Clerk  
   One (outsourced)

During the year various representation from SC/ST employees were received in the SC/ST Cell, as mentioned below:

- Total representations received: 9
- Total cases resolved/disposed off: 6
- Total cases under consideration: 3

Brief summaries of the cases are:

1. Complaint of Shri Ajay Kumar regarding service harassment towards a SC candidate at AIIMS, New Delhi. The matter has been disposed off.
2. Complaint of Ms Sushil, Nursing Officer, Main OT regarding service harassment towards a SC candidate at AIIMS, New Delhi. The matter has been disposed off.
3. Representation of Shri Sanjiv Kumar, Masalchi Bearer against Ms Suman Rawat, Stenographer regarding mental torture and humiliation. The matter has been disposed off.
4. Representations of SC candidates (Ms Shashi Prabha and Mr Bhupender Kumar) against the promotional order issued in respect of Personal Assistant. The matter has been disposed off.
5. Representations for request to implement DOPT order No. 36012/11/2016-Estt. (Res-I)(Pt. II) dated 15 June 2018 regarding promotion on merits in DPC by the following:  
   (i) Shri Bhawani Singh Meena, TO (MLT), Dr RP Centre  
   (ii) Shri Manohar Lal Meena, TO (MLT), Haematology  
   (iii) Ms Neelima Sharma, TO (MLT), Dr RP Centre  
   The above three matters have been disposed off.
6. Grievances against mutual respect/dissonance between two employees (Mrs Meena Panda, NS and Mrs Indu Bala Sharma, DNS) in the premises of Dr RP Centre at AIIMS, New Delhi. The matter is under process with the Redressal Committee to sort out the matter.
7. Representation of Smt Anita Rai Saxena, Senior Hindi Translator regarding denial of promotion to the post of Hindi Officer at AIIMS, New Delhi. The matter has been disposed off.
8. Representation of Ms Renu Prakash (nee Tigga), PS, Department of Psychiatry, AIIMS, New Delhi in respect of promotion is under consideration with the Recruitment Cell.
9. Representation of Dr Biplab Mishra at NCSE case No. 1320/30/02019-1513 regarding service harassment is under consideration with Faculty Cell.
6. Hospital

Medical Superintendent
DK Sharma

Department of Hospital Administration

Professor and Head
Sidhartha Satpathy

Professors
IB Singh Sanjay Kumar Arya

Associate Professors
Nirupum Madaan Amit Lathwal
Anoop Daga Mahesh R

Assistant Professors
Angel Rajan Singh Abdul Hakim
Parmeshwer Kumar Jitender Sodhi
(Vup to 15 March 2019) (from 18 March 2019)

Sheetal Singh (Contract)
(from 2 January 2019)

Bed Complement

<table>
<thead>
<tr>
<th>Bed Category</th>
<th>Main Hospital</th>
<th>Centre for Dental Education and Research</th>
<th>Cardiothoracic and Neurosciences Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>836</td>
<td>17</td>
<td>317</td>
</tr>
<tr>
<td>ICU</td>
<td>92</td>
<td>-</td>
<td>74</td>
</tr>
<tr>
<td>Observation</td>
<td>69</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td>Private Ward</td>
<td>165</td>
<td>-</td>
<td>64</td>
</tr>
<tr>
<td>Total</td>
<td>1,162</td>
<td>17</td>
<td>464</td>
</tr>
</tbody>
</table>

Hospital Performance Indices

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average length of stay (days)</td>
<td>9.5</td>
<td>9.3</td>
<td>10.2</td>
<td>9.8</td>
<td>5.6</td>
<td>5.4</td>
<td>Effective utilization of beds for regular admissions</td>
</tr>
<tr>
<td>Average bed occupancy rate (%)</td>
<td>86.8</td>
<td>86.4</td>
<td>84.9</td>
<td>87.9</td>
<td>73.6</td>
<td>71.9</td>
<td>Fair occupancy</td>
</tr>
<tr>
<td>Net death rate (%)</td>
<td>1.7</td>
<td>1.8</td>
<td>2.9</td>
<td>2.8</td>
<td>–</td>
<td>0.02</td>
<td>Low mortality rate despite a large number of critically ill patients admitted</td>
</tr>
<tr>
<td>Combined crude infection rate (%)</td>
<td>5.8%</td>
<td>6.0%</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Pertains to Main Hospital only</td>
</tr>
</tbody>
</table>
6.1. Medical Records Department

Officer Incharge
Mahesh R

Chief Medical Officer (Acting)
Patty S Lyngdoh (up to 28 February 2019)

Junior Medical Record Officers
Ashok Kumar
Sandeep M Singh
PD Sharma
Roshan Lal-II

EDUCATION

1. A group of 22 MSc (PB) Nursing students visited Medical Record Section, Main Hospital and a brief lecture was delivered on Medical Record Management at AIIMS by the Chief Medical Record Officer (Actg.)/Jr. Medical Record Officer on 19 April 2018

2. A group of 25 BSc (PB) 1st year Nursing students visited Medical Record Section, Main Hospital and a brief lecture was delivered on Medical Record Management at AIIMS by the Chief Medical Record Officer (Actg.)/Jr. Medical Record Officer on 3 August 2018

3. A group of 20 MSc Nursing students visited Medical Record Section, Main Hospital and a brief lecture was delivered on Medical Record Management at AIIMS by the Chief Medical Record Officer (Actg.)/Jr. Medical Record Officer on 25 January 2019

TRAININGS

1. Mrs. Patty S Lyngdoh, Chief M.R.O, Actg. and Mr. Ashok Kumar, Jr. M.R.O attended one day workshop on Cancer Registration System organized by Delhi Cancer Registry, Dr BRA IRCH on 2 May 2018 at AIIMS, New Delhi

2. Mrs. Anju Dixit (M.R.T) was nominated to attend one day workshop on Prevention of Sexual Harassment of Women at work place on 9 May 2018 at AIIMS, New Delhi

3. Mr. Rajbir Singh (M.R.T), Ms. Anju Dixit (M.R.T) and Ms. Neelam Baria (M.R.T) from Medical Record Section, Main Hospital have been nominated for One Day Training Cum Review Meeting for HMIS held on 7 and 8 February 2019 respectively organized by South Distt. DSHM-M&E Cell at Vikash Bhawan II, Civil Lines, Delhi

COURT ATTENDANCE

1. A total number of 661 summons/notices were received in the Medical Record Section (Main Hospital) from various Courts of Delhi and outside Delhi. The concerned doctors/ consultants (as per case) and staffs from the Medical Record Department have been deputed to attend the court on behalf of AIIMS Hospital to depose/settle the case

Aid in Medical Education and Research

1. Approximately 7,246 Medical Case Records (Case Sheets) have been retrieved and issued to the Residents authorized by the concerned consultants for research, education and other official purposes

Computerization and Digitization of Medical Records

1. Digitization of inpatient medical records of Main Hospital was started from the year 2014 for easy retrieval of records. More than 1 Crore images approximately of case records of the patients have been scanned for future reference

In-Patient Services

1. The yearly statistical health bulletin at a glance of Main Hospital, C.D.E.R. and C.N. Centre of AIIMS are given at Appendix-I
2. The AIIMS Hospital has maintained its tradition of services and quality of patient care in spite of increasing number of patients who visited the hospital from all over India as well as from abroad. A total number of 1,39,636 patients were admitted during the financial year in various clinical units of Main Hospital, C.N. Centre and C.D.E.R. The details of patient load as per Department-wise, State-wise and Gender-wise, Admissions, Discharges and Average Length of Stay are given at Appendix-II, III and V respectively. The details of deaths as per department-wise and its indices are given at Appendix-IV.

3. A total number of 1,28,703 Surgical Procedures (Major and Minor) were performed during the year in various Surgical Disciplines of Main Hospital, C.N. Centre and Centre for Dental and Education Research (CDER) is given at Appendix-VI.

4. Medical Record of indoor patients are systematically classified and categorized for easy retrievals for the purposes of Education, Research/Thesis, Presentation, Insurance, Court Cases etc. These records are stored in the Compactors according to C.R. Numbers. All the In-patient records of Main Hospital, C.N. Centre and Centre for Dental and Education Research (CDER) are maintained separately by Medical Record Section of the Main Hospital.

5. In addition to the above activities, the following departments have commissioned their special clinics in OPD and inpatient admissions to facilitate the care of health services during this year:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Department/Special Clinics</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Travel Health and Adult Immunization Clinic under Medicine Department</td>
<td>Every Monday at Medicine OPD</td>
</tr>
<tr>
<td>2.</td>
<td>Head and Neck Rehabilitation Clinic under ENT</td>
<td>Room no. 4112-A OPD</td>
</tr>
</tbody>
</table>

Central Admission Office and Hospital Enquiry

1. The Central Admission Office and Enquiry (CAO&E) of AIIMS functions round the clock for 365 days without break.

2. All admissions to the inpatient areas of Main Hospital, C.N. Centre and C.D.E.R. are made through this office. It functions like the heart of the Institute and performing important functions like patient registration for initiation of Admission Slip (Face-Sheet) and issuing of attendant passes etc.

3. The Admission Office also gives information to several ministries as well as to the higher authorities of AIIMS about the hospitalization of VIPs/VVIPs.

4. In addition, the office also functions as a general enquiry providing prompt and accurate information regarding the patients and the Institute. The staffs working there are on shift duties and are manned by Receptionists, Jr. Medical Record Officer and Medical Record Technicians etc.

Out Patient Department and Specialty Clinics

1. A total number of 16,56,329 Patients attended various General Out-Patients Department (OPD), Specialty Clinics and Emergency Department of the Main Hospital, AIIMS. The details of the out-patients load profile are given at Appendix-VII.

Other Activities

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Activity</th>
<th>Total Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Amendments made in the Inpatients Records during the year</td>
<td>875</td>
</tr>
<tr>
<td>2.</td>
<td>Amendments made in the Birth Records during the year</td>
<td>357</td>
</tr>
<tr>
<td>3.</td>
<td>Amendments made in the Death Records during the year</td>
<td>411</td>
</tr>
<tr>
<td>4.</td>
<td>Admission and other charges exempted for Indigent patients and patients admitted under JSSK Scheme in Main Hospital and CDER</td>
<td>20,121</td>
</tr>
<tr>
<td>5.</td>
<td>Admission and other charges exempted for Indigent patients and patients admitted under JSSK Scheme in C.N. Centre</td>
<td>957</td>
</tr>
</tbody>
</table>

The statistical data for the year 2018-2019 (Annual Report) has been prepared/compiled by Mr Rajbir Singh, Medical Record Technician under the supervision of Chief Medical Record Officer (Actg.)/Jr. Medical Record Officer.
## Table I. Yearly Statistical Health Bulletin

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Item</th>
<th>Main Hospital</th>
<th>CT and NS Centres</th>
<th>CDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Total Patient Admitted</td>
<td>1,17,169</td>
<td>1,15,276</td>
<td>21,278</td>
</tr>
<tr>
<td></td>
<td>a. Adults and Children</td>
<td>1,14,721</td>
<td>1,12,781</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>—Regular</td>
<td>34,116</td>
<td>34,940</td>
<td>13,290</td>
</tr>
<tr>
<td></td>
<td>—Short</td>
<td>80,605</td>
<td>77,841</td>
<td>7,988</td>
</tr>
<tr>
<td></td>
<td>b. Newborn infants</td>
<td>2,448</td>
<td>2,495</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Regular</td>
<td>2,448</td>
<td>2,495</td>
<td>–</td>
</tr>
<tr>
<td>2.</td>
<td>Patients discharged (including LAMA, absconded, discharge on request and deaths)</td>
<td>1,13,630</td>
<td>1,11,708</td>
<td>20,704</td>
</tr>
<tr>
<td></td>
<td>a. Adults and Children</td>
<td>1,11,236</td>
<td>1,09,284</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>—Regular</td>
<td>33,027</td>
<td>34,264</td>
<td>12,972</td>
</tr>
<tr>
<td></td>
<td>—Short</td>
<td>78,209</td>
<td>75,020</td>
<td>7,732</td>
</tr>
<tr>
<td></td>
<td>b. Newborn infants</td>
<td>2,394</td>
<td>2,424</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>—Regular</td>
<td>2,394</td>
<td>2,424</td>
<td>–</td>
</tr>
<tr>
<td>3.</td>
<td>Total days of care</td>
<td>4,13,040</td>
<td>4,15,059</td>
<td>1,39,560</td>
</tr>
<tr>
<td></td>
<td>a. Adults and Children</td>
<td>3,96,071</td>
<td>3,97,173</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>—Regular</td>
<td>3,17,862</td>
<td>3,22,153</td>
<td>1,31,828</td>
</tr>
<tr>
<td></td>
<td>—Short</td>
<td>78,209</td>
<td>75,020</td>
<td>7,732</td>
</tr>
<tr>
<td></td>
<td>b. Newborn infants</td>
<td>16,969</td>
<td>17,886</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>—Regular</td>
<td>16,969</td>
<td>17,886</td>
<td>–</td>
</tr>
<tr>
<td>4.</td>
<td>Average length of stay of regular patients</td>
<td>9.5</td>
<td>9.3</td>
<td>10.2</td>
</tr>
<tr>
<td></td>
<td>a. Adults and Children</td>
<td>9.6</td>
<td>9.4</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>b. Newborn infants</td>
<td>7.1</td>
<td>7.4</td>
<td>–</td>
</tr>
<tr>
<td>5.</td>
<td>Total patient care days (as per daily census)</td>
<td>3,46,150</td>
<td>3,41,746</td>
<td>1,40,986</td>
</tr>
<tr>
<td></td>
<td>a. Adults and Children</td>
<td>3,43,418</td>
<td>3,39,062</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>b. Newborn infants</td>
<td>2,732</td>
<td>2,684</td>
<td>–</td>
</tr>
<tr>
<td>6.</td>
<td>Daily average number of patients (as per daily census)</td>
<td>948</td>
<td>936</td>
<td>386</td>
</tr>
<tr>
<td></td>
<td>a. Adults and Children</td>
<td>941</td>
<td>929</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>b. Newborn infants</td>
<td>7</td>
<td>7</td>
<td>–</td>
</tr>
<tr>
<td>7.</td>
<td>Average bed occupancy</td>
<td>86.8</td>
<td>86.4%</td>
<td>84.9</td>
</tr>
<tr>
<td></td>
<td>a. Adults and Children</td>
<td>86.7</td>
<td>85.7%</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>b. Newborn infants</td>
<td>0.1</td>
<td>0.7%</td>
<td>–</td>
</tr>
<tr>
<td>8.</td>
<td>Births in Hospital</td>
<td>2,448</td>
<td>2,495</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>a. Male</td>
<td>1,286</td>
<td>1,284</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>b. Female</td>
<td>1,159</td>
<td>1,209</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>c. Intersex</td>
<td>3</td>
<td>2</td>
<td>–</td>
</tr>
<tr>
<td>9.</td>
<td>Total inpatient deaths (including newborns)</td>
<td>3,179</td>
<td>3,327</td>
<td>858</td>
</tr>
<tr>
<td></td>
<td>a. Deaths under 48 hours</td>
<td>1,300</td>
<td>1,319</td>
<td>255</td>
</tr>
<tr>
<td></td>
<td>b. Deaths over 48 hours</td>
<td>1,879</td>
<td>2,008</td>
<td>603</td>
</tr>
<tr>
<td></td>
<td>c. Gross death rate (%)</td>
<td>2.8</td>
<td>3.0</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td>d. Net death rate (%)</td>
<td>1.7</td>
<td>1.8</td>
<td>2.9</td>
</tr>
<tr>
<td>Department</td>
<td>Admission</td>
<td>Discharges (including LAMA, absconded, OR, deaths)</td>
<td>Total days of care</td>
<td>Average length of stay of regular admissions</td>
</tr>
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<td>-----------</td>
<td>-----------------------------------------------------</td>
<td>-------------------</td>
<td>---------------------------------------------</td>
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<tr>
<td>Anesthesiology (Pain Clinic)</td>
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<tr>
<td>Dermatology and Venereology</td>
<td>724</td>
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<td>123</td>
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<tr>
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<td>464</td>
<td>186</td>
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<tr>
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<td>925</td>
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<td>341</td>
<td>625</td>
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<td>2,273</td>
<td>2,115</td>
<td>6.8</td>
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<td>1,885</td>
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<td>389</td>
<td>383</td>
<td>2,080</td>
<td>5.4</td>
</tr>
<tr>
<td>Orthopaedics I</td>
<td>1,428</td>
<td>1,390</td>
<td>11,544</td>
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</tr>
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<td>547</td>
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<td>1,001</td>
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<td>585</td>
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<td>950</td>
<td>9,069</td>
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<td>13,674</td>
<td>10.3</td>
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<td>41</td>
<td>38</td>
<td>1,526</td>
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<td>Psychiatry</td>
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<td>238</td>
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<td>37.0</td>
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<td>Pulmonary Medicine and Sleep Disorders</td>
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<td>9,324</td>
<td>11.0</td>
</tr>
<tr>
<td>Plastic and Reconstructive Surgery</td>
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<td>356</td>
<td>2,064</td>
<td>5.8</td>
</tr>
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<td>Radiotherapy</td>
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<td>5</td>
<td>11</td>
<td>2.2</td>
</tr>
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<td>Rheumatology</td>
<td>9</td>
<td>7</td>
<td>1,460</td>
<td>5.4</td>
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<tr>
<td>Surgical Disciplines I</td>
<td>882</td>
<td>913</td>
<td>8,998</td>
<td>9.9</td>
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Table II. Department-wise admissions (Main Hospital and CN Centre and CDER)
<table>
<thead>
<tr>
<th>Department</th>
<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
<th>Fourth Year</th>
<th>Total (Main)</th>
<th>Total (CNC)</th>
<th>CDER</th>
</tr>
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<tbody>
<tr>
<td>Surgical Disciplines II</td>
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<td>648</td>
<td>1,317</td>
<td>532</td>
<td>9,174</td>
<td>532</td>
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<tr>
<td>Surgical Disciplines III</td>
<td>925</td>
<td>531</td>
<td>999</td>
<td>439</td>
<td>8,577</td>
<td>439</td>
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<td>930</td>
<td>1,428</td>
<td>815</td>
<td>8,967</td>
<td>815</td>
<td>6.3</td>
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<td>1,649</td>
<td>5,771</td>
<td>1,677</td>
<td>5,622</td>
<td>12,644</td>
<td>5,622</td>
<td>7.5</td>
</tr>
<tr>
<td><strong>Total (Main)</strong></td>
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<td>80,605</td>
<td>35,421</td>
<td>78,209</td>
<td>334,831</td>
<td>78,209</td>
<td>9.5</td>
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<td>4,088</td>
<td>4,063</td>
<td>4,101</td>
<td>3,982</td>
<td>29,564</td>
<td>3,982</td>
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<td>Cardiothoracic and Vascular Surgery</td>
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<td>21</td>
<td>3,272</td>
<td>10</td>
<td>37,108</td>
<td>10</td>
<td>11.3</td>
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<tr>
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<td>853</td>
<td>1,036</td>
<td>815</td>
<td>9,213</td>
<td>815</td>
<td>8.9</td>
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<td>765</td>
<td>831</td>
<td>767</td>
<td>9,350</td>
<td>767</td>
<td>11.3</td>
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<td>775</td>
<td>843</td>
<td>748</td>
<td>9,018</td>
<td>748</td>
<td>10.7</td>
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<td>Neurosurgery I</td>
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<td>1,294</td>
<td>774</td>
<td>18,284</td>
<td>774</td>
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<td>1,410</td>
<td>454</td>
<td>18,159</td>
<td>454</td>
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<td>182</td>
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<td>182</td>
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<td><strong>Total (CNC)</strong></td>
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<td>131,828</td>
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<td>818</td>
<td>345</td>
<td>4,573</td>
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Figure 1. Department-wise average length of stay
Table III. Department-wise deaths in Main Hospital and CN Centre

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<thead>
<tr>
<th>Department</th>
<th>Discharges</th>
<th>Total Deaths</th>
<th>Deaths under 48 hrs.</th>
<th>Deaths Over 48 hrs.</th>
<th>Gross Deaths Rate in %</th>
<th>Net Deaths Rate in %</th>
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<tbody>
<tr>
<td>Anesthesiology (Pain Clinic)</td>
<td>781</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>0.0</td>
<td>0.0</td>
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<td>7</td>
<td>2</td>
<td>5</td>
<td>0.2</td>
<td>0.2</td>
</tr>
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<td>Endocrinology and Metabolism</td>
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<td>8</td>
<td>2</td>
<td>6</td>
<td>1.2</td>
<td>0.9</td>
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<td>561</td>
<td>261</td>
<td>300</td>
<td>10.0</td>
<td>5.6</td>
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<td>82</td>
<td>18</td>
<td>64</td>
<td>7.7</td>
<td>6.1</td>
</tr>
<tr>
<td>Geriatric medicine</td>
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<td>211</td>
<td>68</td>
<td>143</td>
<td>13.6</td>
<td>9.6</td>
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<td>135</td>
<td>177</td>
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<td>1.2</td>
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<td>161</td>
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<td>13.7</td>
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<td>184</td>
<td>17.8</td>
<td>10.7</td>
</tr>
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<td>93</td>
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<td>------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
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<tr>
<td></td>
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<td>193</td>
<td>643</td>
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<td>4,306</td>
<td>3,794</td>
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<td>No death has occurred in CDER</td>
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Table IV. Surgical procedures done in the Main Hospital, CDER and CN Centre

<table>
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<th>Department</th>
<th>Major</th>
<th>Minor</th>
<th>Total</th>
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<tr>
<td>Surgical Disciplines I</td>
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<td>5,597</td>
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<td>598</td>
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<td>In vitro fertilization</td>
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<td>1,306</td>
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<td>Gynaecology I</td>
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<td>Gynaecology II</td>
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<td>671</td>
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<td>New Cases</td>
<td>Old Cases</td>
<td>Total</td>
</tr>
<tr>
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<td>-----------</td>
<td>---------</td>
</tr>
<tr>
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<td>7,304</td>
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<td><strong>Plastic and Reconstructive Surgery</strong></td>
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<td>0</td>
</tr>
<tr>
<td><strong>Pulmonary Medicine and Sleep Disorders</strong></td>
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<td>2,794</td>
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<td><strong>Total (Main Hospital)</strong></td>
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Table V. Attendance in outpatients and specialty clinics

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<th>Old Cases</th>
<th>Total</th>
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<td></td>
</tr>
<tr>
<td>General OPD</td>
<td>68,991</td>
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<td>1,17,514</td>
</tr>
<tr>
<td>a) Obesity and metabolic disorders</td>
<td>520</td>
<td>386</td>
<td>906</td>
</tr>
<tr>
<td>b) Infectious disease clinic</td>
<td>637</td>
<td>897</td>
<td>1,534</td>
</tr>
<tr>
<td><strong>Rheumatology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General OPD</td>
<td>7,985</td>
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</tr>
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<td>a) Rheumatology clinic</td>
<td>66</td>
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<td>5,048</td>
</tr>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>16,891</td>
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<td></td>
<td></td>
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<td>General OPD</td>
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<td>24,853</td>
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<tr>
<td>a) Sleep disorder</td>
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<td>195</td>
<td>358</td>
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<td>b) Lung cancer</td>
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</tr>
<tr>
<td>c) ILD - PAH</td>
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<td>1,375</td>
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<tr>
<td>d) Combined pulmonary surgery</td>
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<td>663</td>
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<td><strong>Nuclear Medicine</strong></td>
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<td>9,975</td>
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</tr>
<tr>
<td>a) Transplant clinic</td>
<td>223</td>
<td>11,279</td>
<td>11,502</td>
</tr>
<tr>
<td>b) RTCC</td>
<td>471</td>
<td>1,983</td>
<td>2,454</td>
</tr>
<tr>
<td><strong>Haematology</strong></td>
<td>3,415</td>
<td>10,868</td>
<td>14,283</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>29,975</td>
<td>20,725</td>
<td>50,700</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>General OPD</td>
<td>33,178</td>
<td>52,217</td>
</tr>
<tr>
<td>a) Well baby</td>
<td>671</td>
<td>00</td>
<td>671</td>
</tr>
<tr>
<td>b) Follow up TB</td>
<td>269</td>
<td>772</td>
<td>1,041</td>
</tr>
<tr>
<td>c) Renal clinic</td>
<td>438</td>
<td>992</td>
<td>1,430</td>
</tr>
<tr>
<td>d) Paediatric neurology</td>
<td>1,294</td>
<td>2,350</td>
<td>3,644</td>
</tr>
<tr>
<td>e) Paediatric chest clinic</td>
<td>661</td>
<td>2,904</td>
<td>3,565</td>
</tr>
<tr>
<td>f) High risk neonatal</td>
<td>335</td>
<td>1,218</td>
<td>1,553</td>
</tr>
<tr>
<td>g) Genetic and birth defects clinic</td>
<td>2,911</td>
<td>1,039</td>
<td>3,950</td>
</tr>
<tr>
<td>h) Oncology clinic</td>
<td>485</td>
<td>1,102</td>
<td>1,587</td>
</tr>
<tr>
<td>i) Child development clinic</td>
<td>1,347</td>
<td>818</td>
<td>2,165</td>
</tr>
<tr>
<td>j) Endocrinology clinic</td>
<td>244</td>
<td>681</td>
<td>925</td>
</tr>
<tr>
<td>k) Neurocysticercosis clinic</td>
<td>266</td>
<td>656</td>
<td>922</td>
</tr>
<tr>
<td>l) PCSC</td>
<td>284</td>
<td>697</td>
<td>981</td>
</tr>
<tr>
<td>m) Rheumatology clinic</td>
<td>780</td>
<td>1,856</td>
<td>2,636</td>
</tr>
<tr>
<td>n) Myopathy clinic</td>
<td>615</td>
<td>751</td>
<td>1,366</td>
</tr>
<tr>
<td>o) Paediatric gastroenterology clinic</td>
<td>514</td>
<td>1,169</td>
<td>1,683</td>
</tr>
<tr>
<td>p) Autism</td>
<td>599</td>
<td>264</td>
<td>863</td>
</tr>
<tr>
<td>Dermatology and Venereology</td>
<td>General OPD</td>
<td>34,729</td>
<td>28,908</td>
</tr>
<tr>
<td>a) STD (Dermatology surgery)</td>
<td>1,391</td>
<td>2,709</td>
<td>4,100</td>
</tr>
<tr>
<td>b) Allergy clinic</td>
<td>607</td>
<td>1,055</td>
<td>1,662</td>
</tr>
<tr>
<td>c) Leprosy</td>
<td>404</td>
<td>1,608</td>
<td>2,012</td>
</tr>
<tr>
<td>d) Psoriasis</td>
<td>442</td>
<td>1,152</td>
<td>1,594</td>
</tr>
<tr>
<td>e) Dermo-Surgery</td>
<td>1,122</td>
<td>683</td>
<td>1,805</td>
</tr>
<tr>
<td>f) Vitiligo</td>
<td>340</td>
<td>878</td>
<td>1,218</td>
</tr>
<tr>
<td>g) Photo Therapy</td>
<td>164</td>
<td>203</td>
<td>367</td>
</tr>
<tr>
<td>h) Photo Dermatology</td>
<td>61</td>
<td>71</td>
<td>132</td>
</tr>
<tr>
<td>i) Paediatric Dermatology</td>
<td>141</td>
<td>77</td>
<td>218</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>General OPD</td>
<td>21,424</td>
<td>33,463</td>
</tr>
<tr>
<td>a) Child guidance</td>
<td>781</td>
<td>755</td>
<td>1,536</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surgical Disciplines</th>
<th>New Cases</th>
<th>Old Cases</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery</td>
<td>62,836</td>
<td>23,921</td>
<td>86,757</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>2,634</td>
<td>1,403</td>
<td>4,037</td>
</tr>
<tr>
<td>Urology</td>
<td>19,639</td>
<td>21,277</td>
<td>40,916</td>
</tr>
<tr>
<td>Gastrointestinal Surgery</td>
<td>3,941</td>
<td>4,700</td>
<td>8,641</td>
</tr>
<tr>
<td>Paediatric Surgery</td>
<td>General OPD</td>
<td>9,862</td>
<td>7,547</td>
</tr>
<tr>
<td>a) Hydrocephalus</td>
<td>3</td>
<td>41</td>
<td>44</td>
</tr>
<tr>
<td>b) Paediatric Urology</td>
<td>485</td>
<td>2,862</td>
<td>3,347</td>
</tr>
<tr>
<td>c) PSTC</td>
<td>44</td>
<td>837</td>
<td>881</td>
</tr>
<tr>
<td>Anaesthesiology</td>
<td>a) Pain clinic</td>
<td>1,021</td>
<td>3,102</td>
</tr>
<tr>
<td></td>
<td>b) Pre-anesthesia clinic</td>
<td>9,552</td>
<td>1,378</td>
</tr>
<tr>
<td>Department</td>
<td>General OPD</td>
<td>70,059</td>
<td>49,600</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-------------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>a) Physiotherapy</td>
<td>29,078</td>
<td>25,398</td>
</tr>
<tr>
<td></td>
<td>b) Occupational therapy</td>
<td>1,355</td>
<td>5,285</td>
</tr>
<tr>
<td></td>
<td>c) Hydro Therapy</td>
<td>1156</td>
<td>6,612</td>
</tr>
<tr>
<td></td>
<td>d) Tuberculosis</td>
<td>71</td>
<td>127</td>
</tr>
<tr>
<td></td>
<td>e) Scoliosis</td>
<td>639</td>
<td>1,141</td>
</tr>
<tr>
<td></td>
<td>f) Hand clinic</td>
<td>931</td>
<td>559</td>
</tr>
<tr>
<td></td>
<td>g) CTEV</td>
<td>374</td>
<td>1,632</td>
</tr>
<tr>
<td></td>
<td>h) Sports clinics</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>i) Fragility fracture clinic and liaison services</td>
<td>56</td>
<td>157</td>
</tr>
<tr>
<td></td>
<td>j) Bone and Soft Tissue Sarcoma clinic</td>
<td>26</td>
<td>8</td>
</tr>
<tr>
<td>Otorhino-laryngology</td>
<td>General OPD</td>
<td>55,160</td>
<td>33,438</td>
</tr>
<tr>
<td></td>
<td>a) Audiology</td>
<td>151</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>b) Speech</td>
<td>3,644</td>
<td>3,139</td>
</tr>
<tr>
<td></td>
<td>c) Hearing</td>
<td>216</td>
<td>459</td>
</tr>
<tr>
<td></td>
<td>d) Voice</td>
<td>386</td>
<td>226</td>
</tr>
<tr>
<td></td>
<td>e) Vertigo</td>
<td>136</td>
<td>159</td>
</tr>
<tr>
<td></td>
<td>f) Rhinology</td>
<td>197</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>g) HN&amp; R</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Obstetrics and Gynaecology</td>
<td>General OPD</td>
<td>42,533</td>
<td>42,848</td>
</tr>
<tr>
<td></td>
<td>a) IVF</td>
<td>1,250</td>
<td>4,500</td>
</tr>
<tr>
<td></td>
<td>b) Family welfare</td>
<td>4,789</td>
<td>4,011</td>
</tr>
<tr>
<td></td>
<td>c) Antenatal</td>
<td>985</td>
<td>2,973</td>
</tr>
<tr>
<td></td>
<td>d) Endo-Gynaecology</td>
<td>36</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>e) High Risk Pregnancy</td>
<td>236</td>
<td>8,965</td>
</tr>
<tr>
<td>Radiotherapy</td>
<td>General OPD</td>
<td>13,900</td>
<td>25,737</td>
</tr>
<tr>
<td></td>
<td>a) Prosthetics and Orthotics</td>
<td>3,175</td>
<td>7,123</td>
</tr>
<tr>
<td></td>
<td>b) Disability evaluation clinic</td>
<td>0</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>c) OPD (PT Section)</td>
<td>0</td>
<td>16,460</td>
</tr>
<tr>
<td></td>
<td>d) OPD (OT Section)</td>
<td>0</td>
<td>10,127</td>
</tr>
<tr>
<td></td>
<td>e) OPD (MSSO)</td>
<td>1,550</td>
<td>1,958</td>
</tr>
<tr>
<td>Others</td>
<td>Emergency/Casualty</td>
<td>1,03,455</td>
<td>46,083</td>
</tr>
<tr>
<td></td>
<td>Employees Health Scheme</td>
<td>1,32,402</td>
<td>88,266</td>
</tr>
<tr>
<td></td>
<td>Nutrition</td>
<td>10,301</td>
<td>0</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td></td>
<td>8,74,946</td>
<td>7,81,383</td>
</tr>
</tbody>
</table>

### 6.2. Dietetics

**Chief Dietician**  
Dr (Mrs) Parmeet Kaur

**Dietician**  
Ms Swapana Chaturvedi

**Assistant Dietician**  
Ms Gurdeep Kaur  
Ms Monita Gahlot

Ms Vasundhara Singh  
Ms Anjali Bhol

Ms Rekha Pal

AIIMS 2018-19 / 37
Department of Dietetics takes care of the therapeutic dietary needs of approximately 2,300 indoor patients every day. There are various kinds of diets provided to the patients based on the disease and dietary requirements calculated on the basis of nutritional screening and nutritional assessment done by the Dieticians in their respective wards. The approximate yearly data of different kind of diets sent to the indoor patients of main hospital and centers, comprising around 3 major meals and 2 minor meals in a day are as follows:

Table I. Total number of indoor patients served hospital diet per annum (Main Hospital and Centres)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Type of Diet</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Normal</td>
<td>4,02,000</td>
</tr>
<tr>
<td>2.</td>
<td>Private Ward</td>
<td>94,116</td>
</tr>
<tr>
<td>3.</td>
<td>Semisolid</td>
<td>84,652</td>
</tr>
<tr>
<td>4.</td>
<td>Therapeutic</td>
<td>1,72,207</td>
</tr>
<tr>
<td>5.</td>
<td>Enteral feeds</td>
<td>68,632</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>8,21,607</td>
</tr>
</tbody>
</table>

In addition nutrition counseling OPD and clinics are also run in the Main Hospital. The approximate number of indoor and outdoor patients counseled by the department are:

Table II. Total number of patients given outdoor and indoor nutrition counseling (Main Hospital)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Outdoor</th>
<th>Indoor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>5,824</td>
<td>3,201</td>
<td>9,025</td>
</tr>
<tr>
<td>Female</td>
<td>4,477</td>
<td>2,879</td>
<td>7,356</td>
</tr>
<tr>
<td>Total</td>
<td>10,301</td>
<td>6,080</td>
<td>16,381</td>
</tr>
</tbody>
</table>

DEPARTMENTAL ACTIVITIES

1. Seminar on Plant-Based Nutrition for Prevention and Treatment of Chronic Diseases, AIIMS, New Delhi, 30 July 2018
2. Exhibition on Healthy Food for Pregnant and Lactating Women, National Nutrition Week, AIIMS, New Delhi, 7 September 2018
3. Skill Upgradation Training Programme for Dietary staff of Main Hospital by AIHM, ITDC, AIIMS, New Delhi, 11-18 February 2019
4. Dietetics Day Celebrations with the theme ‘Anemia Mukth Bharat’, AIIMS, New Delhi, 10 January 2019
5. Poshan Pakhwada an initiative of Ministry for Women and Child Development, celebrated at Department of Dietetics, AIIMS, New Delhi, 8 March 2019

Lectures delivered

Parmeet Kaur

1. Diet and Health, Awareness generation on various health issues at Resource Center of DGHS, Nirman Bhawan, New Delhi, 16 August 2018, New Delhi
2. Balance Diet and Healthy Lifestyle, Apprising Jawans about the Importance of Balance Diet at 7th BN. DAP, Malviya Nagar, 11-12 September 2018, New Delhi
3. Panel Discussion-Palliative Care-co-ordinate, consistent and continuous, Palliative Care—A promise of Quality Life, CMET Technology Hall, AIIMS, 22 February 2019, New Delhi
5. Recent Advance Sports Nutrition, Current Concepts and Advances in Sports Medicine, Guru Nanak Dev University, 16 March 2019, Amritsar
6. Dietary Service, 3rd Foundation Training Programme for the General Duty Medical Officer (GDMOs), Under CHS in collaboration with MOHFW at Auditorium Teaching Block, NIHF, 7 September 2018, New Delhi
7. Recent advances in clinical Nutrition, IAPEN clinical nutrition updates “IAPEN Symposium Series”, 21 December 2018, Max Hospital, New Delhi
8. Physiology for good health and prevention of non communicable diseases, Indo- European workshop on “Next generation physiology for healthy lifestyle”, 31 January-1 February 2019, AIIMS, New Delhi
Oral papers/posters presented
2. Kaur P, Expert committee meeting on GDM, Medical Nutrition therapy in GDM, 31 October 2018, ICMR HQs, New Delhi

Monographs/Publications
1. Kaur P, Monograph, ILSI, India. India and South Asian Region, Eating Right for a Healthy You. Member of Healthy Eating Task Force

AWARDS AND HONORS
The department received “SWACHHTA AWARDS 2018” in recognition of contribution toward making clean and green AIIMS under kyakalp scheme.

Dr Parmeet Kaur (Chief Dietician), received appreciation award at NUTRIMEET 2019, on 8 March 2019 organized at Department of Dietetics, AIIMS.

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### 6.3. Hospital Billing Section

The donations received and the payments made to patients during financial year 2018-2019 are:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donations received from donors (Bank interest+Donations+Poor fund boxes)</td>
<td>Rs 31,96,869</td>
</tr>
<tr>
<td>Donations received online (RTGS)</td>
<td>Rs 11,25,000</td>
</tr>
<tr>
<td>Total receipts</td>
<td>Rs 43,21,869</td>
</tr>
<tr>
<td>Payments made to 441 patients</td>
<td>Rs 12,19,660</td>
</tr>
</tbody>
</table>

(The amount disbursed to poor patients is from donations received from donors during the year as well as from the previous balance lying in the ‘AIIMS POOR FUND ACCOUNT’).

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### 6.4. Nursing Services

**Chief Nursing Officer (Acting)**
Ms Kamlesh Chandelia

Nursing service is an integral part of AIIMS, which aims at high quality nursing care to the patients and community. The professional nurses work in an environment that encourages professionalism and expertise in providing comprehensive patient care with the members of allied disciplines in the hospital.

**Staff strength**

The main stratum of workforce in AIIMS is constituted by the well trained professional nurses from different departments. Staffing in nursing service is based on SIU (Staff Inspection Unit) norms in AIIMS.

<table>
<thead>
<tr>
<th>Staff Strength in Hospital/Centers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Nursing Officer</td>
<td>1 (Acting CNO)</td>
</tr>
<tr>
<td>Nursing Superintendent</td>
<td>4</td>
</tr>
<tr>
<td>DNS</td>
<td>32</td>
</tr>
<tr>
<td>ANS</td>
<td>133</td>
</tr>
<tr>
<td>Senior Nursing Officer</td>
<td>841</td>
</tr>
<tr>
<td>Nursing Officer</td>
<td>3,438</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,448</strong></td>
</tr>
</tbody>
</table>
Continuing Nursing Education
Nursing staff education is carried out throughout the year by in-service and continuing education programs to update the clinical knowledge of practicing nurses thereby aiming at improving standard of nursing care at AIIMS.

Nursing in-service education programme
A well structured in-service education programme has been initiated since January 2011. Initially it started with twice a week class of one hour each, which was later on increased to thrice in a week. Two classes in a week are conducted for the bedside nurses (Nursing Officer and Senior Nursing Officer), where as one class in a week is for senior nurses (Sister In-charges and above).

Facilitator Ms. Kamlesh Chandelia
Mentor Ms. Hanumati Devi
Educator Ms. Rebecca J. Herald
Ms. Srinithya Raghavan
Ms. J Subbulakshmi

Since January 2014 ‘National Programme for Health Care of the Elderly (NPHCE)’, monthly workshop for nurses from main hospital been conducted with support from Department of Geriatrics. Nursing educators are also facilitating sessions in the workshop.

Clinical Teaching
Clinical teaching initiated in AB, C, D wings of the main hospital with an objective of upgrading standard of nursing care and solving practical issues in the area itself. This initiative was started on 1 January 2015, with active participation of bedside nurses and supervisory nursing personnel of the clinical areas.

1. 39 sessions conducted till 31 July 2018 in AB wing under supervision of Ms Rebecca Herald
2. 20 sessions conducted till 31 July 2018 in C wing under supervision of Ms J Subbulakshmi
3. 18 sessions conducted till 31 July 2018 in D wing under Ms Srinithya Raghavan
4. 38 sessions conducted in Old and New Private Ward Block, Casualty, New Emergency and OPD

From August 2018 onwards clinical teaching was handed over to ANS Incharge of the respective ward. A well planned orientation programme was conducted for BSc PC batch of 2018-2020.

In Service Education Weekly Classes
A total of 1,693 nurses from different departments in main hospital attended the Inservice Education weekly classes. The following lectures were delivered in the year 2018-2019.

Classes for Senior nursing Personnel/CNO/NS/DNS/ANS/SNO HR
1. Management of patient with Tuberculosis
2. Antibiotic Stewardship
3. Pain Free AIIMS
4. Management of patient with Hypertension
5. Management of Patient with Nipah Virus
6. Pain Medication Policy
7. Management of patient with viral Hepatitis
8. Safe Staffing
9. SNO HR Empowerment Programme (August 2018 to December 2018)
10. Management of patient with Anaemia
11. Patient Safety
12. Classes for Senior Nursing Officers/Nursing Officers
13. Management of patient with Tuberculosis
14. Antibiotic Stewardship
15. Pain Free AIIMS
16. Management of patient with Hypertension
17. Management of Patient with Nipah Virus
18. Pain Medication Policy
19. Management of patient with viral Hepatitis
20. IV Fluid Therapy
21. Selected Nursing Procedures
22. Management of patient with Anaemia
23. Patient Safety

A total of 89 lectures were taken on the above topics in different batches.
The number of nursing personnel who attended the in-service education classes are as follows:
ANS: 83 Senior Nursing Officer: 493 Nursing Officer: 1,117

Module
Developed a protocol for Admission/Discharge/Transfer/LAMA/Death, as there had been no such document available at AIIMS and this endeavor has been both challenging and rewarding. Hours of studying AIIMS protocols and admission/Discharge policy circulars issued from time to time has given a final shape to this document.
Conferences and workshops conducted
7 September 2018, GOSICON 2018 Nursing Track at AIIMS. Total Participants – 52
One Day Critical Care Nursing Update for bedside nursing personnel at MS Seminar Room, AIIMS, New Delhi

<table>
<thead>
<tr>
<th>Date/Month/Year</th>
<th>Total Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 May 2018</td>
<td>30</td>
</tr>
<tr>
<td>14 June 2018</td>
<td>18</td>
</tr>
<tr>
<td>19 July 2018</td>
<td>31</td>
</tr>
</tbody>
</table>

Nursing Administrators Empowerment Programme
Five half-day workshops were conducted for Nursing Superintendents/DNS/ANS of main hospital and all centres of AIIMS, New Delhi to empower them as administrators. A total of 140 participants were present in the five workshops.

SNO HR Empowerment Programme
Nine one-day workshops for SNO HR were conducted and had 298 participants.

Induction Programme for Newly Recruited Nurses
Seven and eleven half-day programmes were organized for 210 and 330 newly inducted nurses in the years 2018 and 2019, respectively.

Basic Nursing Skills Update
Five half-day workshops for 205 newly inducted nurses were conducted at CMET, AIIMS, New Delhi.

Workshops/conferences attended
1. Infection control workshop, 4 April 2018, Ramalingaswamy Board Room, AIIMS, New Delhi, Participants: 3
2. Training of cold chain handlers, 4-5 April 2018, DPNU Saket, Delhi, Participants: 1
3. Infection control practices in Ophthalmology, 12 April 2018, 6th Floor LT, Dr RPC, AIIMS, New Delhi, Participants: 2
4. Transplant coordinator training, 24-28 April 2018, Safdarjung Hospital, New Delhi, Participants: 2
5. Mega Event on Pneumonia and Cancer for vulnerable older adults, 25 April 2018, Gandhi Smriti, New Delhi, Participants: 25
6. Basic 4 Now Course, 28-29 April 2018, Puduchery, Participants: 5
7. A workshop on management of patients undergoing liver transplantation, 10-11 May 2018, ILBS, Vasant Kunj, New Delhi, Participants: 3
9. Yoga Session, 18 June 2018, CIMR, AIIMS, New Delhi, Participants: 32
10. Foundation Oncology Skills for pediatric Nurses, 22-23 September 2018, SSPH and PG Teaching Institute, Noida, Participants: 5
11. Cost Effective Use of Technology in Emergency Health Care, 22 October 2018, JPNATC, AIIMS, New Delhi, Participants: 20
12. Lactation Counseling Training, 5 October 2018, Paediatric Seminar Room, AIIMS, New Delhi, Participants: 11
13. 6th Annual GBM of Ostomy Society, 14 October 2018, Conference Hall, AIIMS, New Delhi, Participants: 4
15. Paediatric Emergencies, 14 November 2018, CMET, AIIMS, New Delhi, Participants: 20
16. International Congress on Gerontology and Geriatric Medicine, 15/16 November 2018, JLN Auditorium, AIIMS, New Delhi, Participants: 19
17. Workshop on Humane Health Care, 16 November 2018, CMETi, AIIMS, New Delhi, Participants: 20
18. ROP and QI Meeting, 19-20 November 2018, Convergence Block, AIIMS, New Delhi, Participants: 4
19. Training Course on Strengthening Practices on Safe Motherhood, 3-11 January 2019, NIHFW, Munirka, New Delhi, Participants: 6
20. Disaster Medical Assistance Team Training Programme, 19-22 January 2019, JPNATC, AIIMS, New Delhi, Participants: 5
21. Advanced Nursing Care Administration and Quality Management Programme, 18-23 February 2019, AHA House, Sec 62, Noida, Participants: 2
A total of 1622 nursing personnel attended 97 Workshop/Conferences during the year excluding Consultancy and participation as experts.

DNS: 2  ANS: 31  Senior Nursing officer: 457  Nursing Officers: 1,132

### Awareness Programmes Organized

Organized Half Day Breast Health Programme in Conference Hall targeting Senior nursing administrators. The programme included Health talks by Professor Anurag Srivastava, HOD and Dr Anitha Dhar, Professor Department of Surgery. Health talks were followed by a short video film on breast self examination.

### Quality Improvement Initiative

Quality Improvement Initiative has been started since 2015 under leadership of Professor AK Deorari. A number of QI projects have been taken up in the institute. Few of the projects have been presented at National as well as International forums. Half day workshops on QI exclusively for nurses have been organized.

### Deputation of Nursing Personnel for Higher studies

Nursing services at AIIMS focus on improving the nursing care by facilitating abundant opportunities for higher studies. After 5 years of regular services, nurses are eligible for pursuing higher studies with full pay. 3 nurses were pursuing post basic BSc nursing programme and 7 MSc nursing programme during this year from Main Hospital.

### Coordination and organization of educational visits for various nursing educational institutions

Nursing educators in AIIMS conducted orientation for groups from different educational institutions across India as listed below:

<table>
<thead>
<tr>
<th>S. No</th>
<th>Name of the College</th>
<th>Date of Visit</th>
<th>No. of Students</th>
<th>No. of Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>RDO College of Nursing, Manipur</td>
<td>1 May 2018</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>SDU College of Nursing, Kolar, Karnataka</td>
<td>27 November 2018</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Alvas College of Nursing, Mangalore, Karnataka</td>
<td>29 January 2019</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>SMES College of Nursing, Mumbai, Maharashtra</td>
<td>5 February 2019</td>
<td>28</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>Nirmala College of Nursing, Karnataka</td>
<td>10 January 2019</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td>6.</td>
<td>Ramaiyah Institute of Nursing, Bangalore, Karnataka</td>
<td>7 February 2019</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td>7.</td>
<td>St. Philomena College of Nursing, Bangalore, Karnataka</td>
<td>21 February 2019</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td>8.</td>
<td>Lourde College of Nursing, Kannur, Kerala</td>
<td>5 March 2019</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>9.</td>
<td>RDO College of Nursing, Manipur</td>
<td>12 March 2019</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td>10.</td>
<td>CMC College of Nursing, Manipur</td>
<td>12 March 2019</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>326</strong></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>
Issuing Credit hours Certification
A total of nine nurses were issues certificates of credit hours for registration in Nursing Council.

Critical Care Workshop
A full day workshop on Critical care Update for nurses working in Emergency and Intensive Care Units with the support of Faculties from Emergency Medicine, Anesthesiology and General Medicine. Certificates were also issued for the same.

Contribution as Facilitators
NIE team facilitated various educational activities inside and outside AIIMS such as:
Team member in the module development of Geriatric Care Assistants at IGNOU;
Participated in the live talk show in Gyan Dharshan with faculty from School of Health Sciences, IGNOU in discussing Nutritional and elimination needs of Geriatric clients;
Represented TTSU Sub-Committee, Ministry of Health and Family Welfare for developing course module for Induction and Promotional Training for Nurses.

INFECTION CONTROL NURSES ACTIVITES
MAIN HOSPITAL 2018-2019

Infection Control Core Committee
Dr DK Sharma    Medical Superintendent, AIIMS, Chairman
Dr Arti Kapil    Professor, Department of Microbiology
Dr Rakesh Lodha Professor, Department of Paediatrics
Dr Rashmi Ramachandran   Professor, Department of Anaesthesia
Dr Anoop Daga    Associate Professor, Hospital Administration
Dr Karan Madan    Assistant Professor, Department of Pulmonary Medicine
Dr Gagandeep Singh Assistant Professor, Department of Microbiology
Dr Jhuma Sankar    Assistant Professor, Department of Paediatrics
Ms Nandyashri George   Nursing Superintendent, Infection Control
Ms Elpreda M Victor   Senior Nursing Officer, Incharge Infection Control Nurse
Ms MRE Vasanth   Senior Nursing Officer, Infection Control Nurse
Ms Betty Maria Binu   Senior Nursing Officer, Infection Control Nurse
Mr Mukesh Kumar Saini   Nursing Officer, Infection Control Nurse
Mr Dhawal Dwivedi   Nursing Officer, Infection Control Nurse
Mr Kunj Bihari Gauttam   Nursing Officer, Infection Control Nurse

HICCOM core committee meets periodically to discuss day to day activities and interventions. HICCOM administrative rounds conducted periodically with infection control core committee, identified problems discussed and rectified.

Activities of HICCOM
1. HICCOM (Hospital Infection Control Committee) conducted monthly half day training programme for nurses, total 303 nursing officers attended. Pre and post test conducted and analysis made
2. For various health care workers sensitization on hand hygiene, PPE and BMW management, total 92 hospital attendants and 76 sanitary attendants attended the sessions
3. Sessions conducted for newly recruited nurses (Induction programme) on hospital infection control practices and biomedical waste management
4. 7 sessions were conducted from August to September 2018, total 213 Nursing officers attended
5. 15 sessions were conducted from 29 January to 12 April 2019, total 422 nursing officers attended
6. Training programme for OT technicians at CMET on standard precautions, SOPs and BMW management for the year 2018-2019, total 100 technical staff attended the programme in 3 sessions from September to October 2018
7. The ICN took a session on Role of infection control nurse in “Clinical Nursing Update” organized by College of Nursing, AIIMS for a group of 30 in-service nursing personnel
8. Involved in the teaching programme for nursing students of College of Nursing, AIIMS related to infection control prevention and practices
9. College of Nursing—Post basic BSc nursing students organized work shop on safe environment in health care sector; ICN has taken session on safe environment in relation with infection control practices in health care set up in February 2019
10. ICNs Conducted classes for Main Kitchen staff for a group of 98 employees on hand hygiene practices, use of PPE and importance of immunization. During Kaya-Kalp rounds same topics were emphasized by infection control nurses
11. ICN participated as resource person for sessions on infection control practices at ‘NCOTT-2018’ Second National Conference of OT-technologists
12. All ICNs took active participation in organizing and conducting “Kaya-Kalp” 2018-2019 rounds
13. Sensitization on hand hygiene, PPE, spill management and needle stick injury protocols were emphasized to sanitary attendants and hospital attendants
14. Sessions were conducted for Biotic workers on hand hygiene, PPE, immunization, spill management and needle stick injury protocols, personal hygiene, loading of BMW trolleys according to the BMW rules
15. The ICNs Contributed in content and finalization of revised edition of Infection Control Manual
16. SOPs on Needle stick injury and Spill management protocols in the form of charts were prepared, distributed and displayed in all clinical areas of AIIMS
17. Sensitization on infection control practices and BMW management for resident doctors, department of medicine on request of HOD Medicine
18. Classes on basic nursing skills conducted at CMET and a session on infection control practices were taken by infection control nurses. Total 206 Nursing officers were educated
19. ICNs conducted session on hand hygiene, personal hygiene, PPE and BMW management at Laundry facility staff and Mortuary staff

**Activities of Infection Control Nurses**

1. Collection of data on total HCAIs in ICUs/ HDUs, Surgical areas on BSI, RTI (VAP), SSI, UTI, CSF/ others infections etc. Data analysis carried out monthly wise for all surgical units and all ICUs and the Performa of data analysis is distributed to all concerned professor in-charges of surgical units and ICUs

**Annual Health Care Associated Infection (HCAI) Rate**

<table>
<thead>
<tr>
<th>Area</th>
<th>Total Major Surgeries/Admissions</th>
<th>HCAI</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Units</td>
<td>15,204</td>
<td>524</td>
<td>3.4</td>
</tr>
<tr>
<td>ICUs</td>
<td>4707</td>
<td>646</td>
<td>13.7</td>
</tr>
</tbody>
</table>

Combined HCAI Rate: \((524 + 646) \times 100 = 5.8\%\)

Monthly surveillance and data for surgical units and ICUs calculated and submitted to MRD section for monthly newsletter.

1. Annual combined data analysis of surgical units and ICUs calculated and the same is distributed to Dr Arti Kapil Professor In-charge Microbiology Hospital Infection Control, Professor DK Sharma, Medical Superintendent, Ms. Kamlesh Chandelia, Chief Nursing Officer, Dr Anoop Daga, Office In-Charge Infection Control from hospital administration and to Medical Record section
2. Individual area rounds conducted by Infection Control Nurses on daily basis by using checklist and whenever need arises, onsite training programme were conducted in the clinical areas and problems are rectified after discussing with the infection control core committee (HICCOM)
3. Surveillance activities: Surveillance of environmental culture and sterility samples taken monthly basis and reports recorded and distributed to all respective areas and discussed to reinforce proper protocols to follow as per the hospital policy

**Surveillance Samples collected from Main Hospital during the year**

<table>
<thead>
<tr>
<th>Total Surveillance Samples</th>
<th>Total Environmental and Sterility Samples</th>
<th>Total In-use Solutions Samples</th>
<th>Total Sterile Samples</th>
<th>Total Unsterile Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Environmental and Sterility Samples</td>
<td>In-use Solutions Samples</td>
<td>Environmental and Sterility Samples</td>
<td>In-use Solutions Samples</td>
</tr>
<tr>
<td></td>
<td>7,906</td>
<td>5,649</td>
<td>2,257</td>
<td>4,773</td>
</tr>
</tbody>
</table>

Management of outbreaks monitored and educated the HCWs about the precautions.

Maintaining the Report Book for daily basis reporting and also a dedicated register for reporting Incident and intervention.

Department of Hospital Administration organized SWACHHATA MELA for two days 1 and 2 October 2018, ICNs took part and set up the skill station and displayed all infection control related charts. Educational activities of HICCOM for five years and HCAI data for five years displayed in the form of graph. Honorable Health Minister Shri JP Nadda inaugurated the Mela and along with AIIMS Director, MS, Faculty and CNO visited the Infection Control Skill Station and interacted the educational activities of HICCOM, AIIMS.
Ministry of health and family welfare has launched “Kaya-Kalp”—Clean Hospital Campaign under Swachh Bharat Abhiyan. Clean and Green AIIMS Campaign guidelines have been formulated. AIIMS is uniquely poised to lead this movement of Kaya-Kalp transformation by being the agent of change and adopting these guidelines.

WHO Hand Hygiene Day observed and ICNs conducted public awareness on hand hygiene demonstrated at RAK OPD and PRC for 3 times and seen active public participation.

### 6.5. Welfare Unit

| Welfare Officer | Mrs Preeti Ahluwalia |

Patients and employees welfare services were organized by the Welfare Officer.

**Patients Welfare**

Patients’ Care: Rs 66,79,000 (approximately) received as donation

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Donation</th>
<th>Donor</th>
</tr>
</thead>
<tbody>
<tr>
<td>For treatment and surgery of poor and needy patients who are undergoing treatment in the Main Hospital and Centres</td>
<td>Rs 20,02,748</td>
<td>Roshni Foundation</td>
</tr>
<tr>
<td></td>
<td>Rs 5,95,773</td>
<td>Bajj Nath Bhandari Public Charitable Trust</td>
</tr>
<tr>
<td></td>
<td>Rs 3,60,386</td>
<td>Sahu Jain Trust</td>
</tr>
<tr>
<td></td>
<td>Rs 2,87,500</td>
<td>Jawahar Bhawan Trust</td>
</tr>
<tr>
<td></td>
<td>Rs 3,07,000</td>
<td>Sewa Prakalp Mahila Mandal Trust</td>
</tr>
<tr>
<td></td>
<td>Rs 1,50,000</td>
<td>President’s Secretariat, Government of India</td>
</tr>
<tr>
<td></td>
<td>Rs 45,000</td>
<td>Rajendra Bhawan Trust</td>
</tr>
<tr>
<td></td>
<td>Rs 60,000</td>
<td>Ms. Stuti Sharma</td>
</tr>
<tr>
<td></td>
<td>Rs 91,104</td>
<td>Other Donors</td>
</tr>
<tr>
<td>AIIMS Poor Fund Account</td>
<td>Rs 4,64,227</td>
<td>National Conference on Medical Education (NCME 2007)</td>
</tr>
<tr>
<td></td>
<td>Rs 3,00,000</td>
<td>Mrs. Dwarka Prasad Trust</td>
</tr>
<tr>
<td></td>
<td>Rs 35,000</td>
<td>Mrs. Preeti Bhatnagar</td>
</tr>
<tr>
<td>Anti-cancer drugs provided free to cancer patients</td>
<td>Rs 17,32,152</td>
<td>Gopal Foundation</td>
</tr>
<tr>
<td></td>
<td>Rs 2,48,369</td>
<td>Dr Chetan Memorial Divine Trust</td>
</tr>
</tbody>
</table>

**Contribution received under Corporate Social Responsibility:** Rs 31 lakhs

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Contribution</th>
<th>Name of the Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Promoting Preventive Health Care-Safe Health Practices in the Hospital</td>
<td>Rs 31,00,000</td>
<td>DLF Urva Real Estate Developers and Services Private Limited</td>
</tr>
</tbody>
</table>

In addition to above, poor patients were guided and assisted to avail of financial assistance for their treatment from Rashtriya Arogya Nidhi, P.M. National Relief Fund, Health Minister’s Discretionary Grant and other governmental agencies. Poor patients were also guided and assisted to avail of financial help from the Hospital Poor Fund Account and for exemption of levy charges, investigation charges, etc.

**Dharamshalas**

There are four Vishram Sadans namely Rajgarhia Vishram Sadan (RVS), Sureka Vishram Sadan (SVS), Shri Sai Vishram Sadan (SSVS) and Power Grid Vishram Sadan which are being run as a welfare activity, i.e to provide shelter to outstation patients and their attendants who are undergoing treatment at AIIMS. The Vishram Sadans provided shelter to over 29,500 patients and their attendants who were undergoing treatment at the Institute and its Centres. A pick and drop facility from the Sadans to the hospital is also being run during day time by the Institute for the benefit of the patients and their attendants.

A play room facility has been provided in Rajgarhia Vishram Sadan for the children staying in the Vishram Sadans. This facility is being run on Monday, Wednesday and Friday from 2:30 p.m. to 4:30 p.m. by Cancer Patient Aid Association
(CPAA). In addition, CPAA organizes Yoga Class once a week for the benefit of the inmates. CPAA also celebrated Holi & Diwali festival with the inmates of the Sadans. Sapna (NGO) distributed 60 packets of ration once in a week to the poor patients of the Vishram Sadans. Further, free food i.e. lunch and dinner was provided free to inmates of RVS, SVS and SSVS by Sureka Public Charity Trust in the Canteen of SVS which is being run by the Trust. A Rasoi Ghar is also functioning in Rajgarhia Vishram Sadan Complex where inmates of RVS, SVS and SSVS cook food on nominal charges. The LPG (gas bank) was replaced by PNG (gas pipeline) in December 2018.

In addition, a Rain Basera facility was set up in November 2012 near Sureka Vishram Sadan and is being managed by Delhi Urban Shelter Improvement Board. The facility provides shelter to poor and needy outstation patients and their attendants who are undergoing treatment at AIIMS. The inmates of the Rain Basera also use the common ‘Rasoi Ghar’ facility and the common toilet facility in RVS complex.

**Promotion of Menstrual Hygiene**
Sanitary Pads/Napkins Vending Machines were installed in January 2018 in the Ladies Toilet situated at RAK OPD AIIMS and Gynae OPD for promotion of menstrual hygiene management for female patients and female workforce at AIIMS. The said project is undertaken by Sewa Prakalp Mahila Mandal Trust (Regd.) and the Trust is responsible for its management and operation.

**Employees Welfare**

**Appointment on Compassionate grounds**
Cases for appointment on compassionate grounds were dealt with. Counseling services and moral support was provided to the family members so as to assist them to accept/overcome the great loss they had suffered and thereby enable them to shoulder the responsibilities befallen upon them.

**Women Grievance Cell**
A Women Grievance Cell has been constituted at AIIMS in January 2014 to resolve grievances/complaints made by:

1. female students of the Institute
2. women employees of the Institute who are working on a regular, temporary, ad hoc, project, temporary status, daily wages, contract or other than outsourced

The Women Grievances Cell deals with the grievances received as per its terms of reference.

**Counselling Services**
Counselling services were provided to employees, patients and their relatives so as to enable them to overcome/adjust to their physical, social, emotional, economic, familial and marital problems and thereby enhance their social functioning.

**Redressal of grievances**
Services for redressal of grievances to staff and patients are being provided.

<table>
<thead>
<tr>
<th>6.6. Medical Social Welfare Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chief Medical Social Service Officer</strong></td>
</tr>
<tr>
<td>BR Shekhar</td>
</tr>
<tr>
<td><strong>Supervising Medical Social Service Officer</strong></td>
</tr>
<tr>
<td>Pankaj Kumar</td>
</tr>
</tbody>
</table>

**Introduction**
The foundation of Medical Social Welfare Unit in AIIMS was laid in 1960 when the first Medical Social Worker was appointed in the main hospital. The Medical Social Welfare Unit is working under the supervision of Medical Superintendent from the very beginning. The integration of Medical Social Services has yielded positive results as it provides social, psychological and financial support for patients and alleviated distress while receiving treatment. The Medical Social Welfare Unit, Main Hospital has 12 Medical Social Service Officers (MSSOs) taking care of OPDs and Wards of 20 important departments in the main hospital. In addition to a team of MSSOs, there are 20 Part-Time Social Guides (PTSG) and one hospital attendant working under the Unit for patient care and guidance.
Our motto: “Committed to patients, committed to AIIMS”

Our Objectives:

1. To create a Therapeutic-Network among the doctor, paramedical staff, the patient, the family and the community
2. To facilitate a Holistic-Healing leading towards a complete physical, psychological, social and vocational rehabilitation
3. To ensure the protection of the basic human rights of the patients
4. To facilitate the various services for the poor and indigent patients
5. To coordinate with the Hospital Administration and treating faculties to facilitate the basic patient welfare services
6. To impart Training and Orientation of Medical Social Work to the Social Work Students
7. To conduct and coordinate the Research studies initiated by our unit and other departments of AIIMS

<table>
<thead>
<tr>
<th>Designation</th>
<th>Number of staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Social Service Officer Gr. I</td>
<td>1</td>
</tr>
<tr>
<td>Medical Social Service Officer Gr. II</td>
<td>9</td>
</tr>
</tbody>
</table>

HIGHLIGHTS

Coordination and implementation of AB-PMJAY scheme in AIIMS

Honourable Minister for Health and Family Welfare visiting AB-PMJAY office

Ayushman Bharat Prime Minister Jan Arogya Yojna (AB- PM JAY), a programme of Government of India was launched on 23 September 2018 by Honourable Prime Minister. AIIMS is a signatory and participant in the implementation of this programme and a dedicated office for the same has been created near gate no. 1 (opposite OPD) in AIIMS.

AB-PMJAY Office near Gate No. 1, AIIMS

The Medical Social Welfare Unit is coordinating the implementation of this scheme in AIIMS with a team of Pradhan Mitra Arogya Mitra (PMAM) and Patient Care Manager (PCM) under the leadership of Medical Superintendent. The MSSO is the key person to implement this scheme and the team of Medical Social Welfare Unit, under the supervision of Chief MSSO has made sure that this programme reaches maximum beneficiaries smoothly. This dynamic center facilitates
Beneficiary Identification, Golden Card generation, Treatment package selection, Pre-authorization of the package, Surgical and Medical treatment, Claim initiation, reporting and networking.

**Financial Assistance to poor and indigent patients for treatment**

Providing Portable Ventilator (Costing approximately Rs 7 lakhs) through CSR donations to patient’s mother for rehabilitation and care at home. Similar help of Rs 10 lakhs was provided for 2 patients of JPNATC. All these patients were admitted in the hospital for more than a year and only through this help they could be rehabilitated at their homes

1. Rs 21,21,26,230 availed from Rashtriya Arogya Nidhi (RAN) for BPL patients to get treatment of life threatening diseases
2. Arranged financial assistance of approximately Rs 50,00,000 for 90 patients under Corporate Social Responsibility (CSR) donations
3. Rs 2,65,500 collected through Poor fund donation box and deposited in AIIMS Poor fund
4. Received Rs 31,96,869 in AIIMS Poor Fund
5. Helped 441 poor patients for Rs 11,19,660 through AIIMS MS poor fund
6. Facilitated the help of Rs 1,00,000 to poor and indigent patients through MSSO Poor Fund

**Free medicines and other donations for poor and indigent patients**

1. Free medicines worth Rs 15,00,000/- to 15,000 OPD patients through voluntary donation at MSWU
2. Free medicines/surgical items to approximately 550 admitted patients from AIIMS
Exemptions of hospital levy charges and railway concession

1. Exemptions of different hospital levy charges including CT, MRI, PET and HLA etc. of approximately 15,000 BPL/poor patients.
2. Exemption on recommendation of treating/concerned faculty for approximately 3,000 patients
3. Railway concession facility provided to approximately 10,050 outstation patients

Counseling and guidance

1. Counseled and guided approximately 40,000 patients
2. Special counseling and guidance given to approximately 5,000 patients during Dengue, Chikungunia and Swine Flu period

Rehabilitation and referral through casualty

1. Rehabilitated approximately 275 patients: Medico-Legal Cases (MLC) and Non-MLC Unknown/Unattended/ Destitute/orphan
2. Facilitated the shifting of approximately 10,815 patients to Safdurjung Hospital and other Government Hospitals for admission through Casualty MSSO due to Non-availability of the beds
3. Facilitated the referral of patients to private hospitals for free treatment under EWS category as per the Hon’able High Court Order

Authorization of Organ Transplant under THOA Act

22 cases of Unrelated Kidney Donors were scrutinized, assessed, documented and presented before the Renal Transplant Authorization Committee as per the THOA, 1994.

Training and orientation

1. Imparted social work training to 41 students of social work came from different colleges across the country
2. Six Orientation Sessions on ‘Medical Social Services in hospital setting’ were given to approximately 75 MSW students from different colleges across India

Special Celebrations

1. Celebrated World Social Work Day on 19 March 2019 with Medical Superintendent, Deputy Director (Administration), Faculty members and staff
2. Diwali Celebration and Magic show in AB-5 ward on 6 November 2018: The Medical Social Welfare Unit organized a Magic Show and Diwali Celebration in the presence of the Director, DDA, Medical Superintendent, Senior Financial Advisor, and HOD, Paediatric Surgery
3. Displayed a comprehensive poster of Medical Social Welfare Unit titled “Next generation Medical Social Welfare in AIIMS” in the 63rd Institute Day Celebration and Exhibition

Other contributions

1. NMLC to MLC conversion 179 in Casualty
2. Continued the digitalization process for the social services and online-exemption through e-hospital
3. The Chief MSSO gave his contributions to the Hospital Health and Hygiene promotion Sub-committee (KAYA KALP)
Teaching activities

Chief MSSO at the Launch of Indian Journal of Health Social Work, Puducherry

1. Mr BR Shekhar, Chief MSSO Chaired the Scientific Award Paper session and gave Presidential address in 6th National Conference of AIAMSWP on ‘GI disorders and Transplant-Medical Social Work perspective and challenges’ on 4 January 2019, JIPMER, Puducherry, The Indian Journal of Health Social Work was also launched in this conference

2. Regular sessions were conducted by Mr. BR Shekhar, Chief MSSO for MHA Students (Hospital Administration) at Medical Social Welfare Unit, Main Hospital on Role of MSSO in Hospital Setting

3. Total 19 sessions were conducted Mr. BR Shekhar, Chief MSSO and Mr. Vivek Kumar Singh, MSSO for approximately 500 Nursing Officers on the topic ‘Social Welfare Schemes for patients in AIIMS’ during their induction programme in CMET, AIIMS

4. Session on ‘Significance of sanitation workers in AIIMS’ conducted Mr. BR Shekhar, Chief MSSO and Mr. Vivek Kumar Singh, MSSO for all Sanitation Supervisors of AIIMS on the occasion of World Health Day, 7 April 2019

Orientation session for Nursing Officers

5. Session on ‘Growth Hormone Therapy: Resources for non affording patients’ conducted by Mr. BR Shekhar, Chief MSSO and Mr. Vivek Kumar Singh, MSSO on 29 April 2018 in the Symposium on ‘Growth Hormone Therapy: Theory to practice’

6. Introductory workshop on Nonviolent Communication (NVC) conducted by Mr. Vivek Kr. Singh, MSSO for 21 Trainees of Social Work in CMET on 26 June 2018

AIIMS 2018-19 / 50
7. Session on ‘Medical Social Services in AIIMS’ conducted by Mr. BR Shekhar, Chief MSSO and Mr. Vivek Kumar Singh, MSSO for 83 Students and 2 faculty members of Delhi School of Social Work (DSSW) on 9 August 2018
8. Session on ‘How to prepare for a presentation’ conducted by Mr. Vivek Kumar Singh, MSSO for Social Work trainees in MSW Unit on 13 August 2018
9. Session on ‘Crisis and Violence in Healthcare’ conducted by Mr. Vivek Kumar Singh, MSSO in the workshop titled ‘Humane Healthcare’ organized by Department of Physiology, AIIMS at CMET

Training activities by Medical Social Welfare Unit

1. Social Work Training—Block Placement: Total 23 students of social work from different school and colleges were given Block Placement Training in Medical Social Work in hospital setting
2. Social Work Training—Concurrent Field Work: 2 students from Delhi School of Social Work (DSSW), 2 students of BR Ambedkar College, Delhi and 2 students of Aditi College, Delhi, completed their yearlong concurrent field work
3. Social Work Orientation Session: 6 Orientation Sessions on ‘Medical Social Services in hospital setting’ were given by Mr. BR Shekhar (Chief MSSO), Mr. Pankaj Kumar (Supervising MSSO) and Mr. Vivek Kumar Singh (MSSO) to the social work student groups along with their faculty members
Seminar/Workshop/Conference attended in AIIMS

1. 7th Annual Conference and Workshop of Association of Breast Surgeons in India, 10 November 2018, AIIMS, New Delhi, Participants: Mr BR Shekhar, Chief MSSO delivered a session on AB-PMJAY (Ayushman Bharat) and other government schemes for Cancer patients

Seminar/Workshop/Conference/Symposium attended outside AIIMS

1. International workshop and training on Health Social Work: Theories, Interventions and Models, 12-13 February 2019, Rajagiri College of Social Sciences, Kalamassery, Kerala, Participants: Mr Afab Alam Shah, MSSO and Ms Kirti Arya, MSSO
2. 6th Indian Social Work Congress, 1-3 November 2018, University of Delhi, Participants: Mr. BR Shekhar, Chief MSSO and Ms. Kirti Arya, MSSO
3. Nonviolent Communication (NVC), 7-17 October 2018, Ruhpolding, Germany, Participants: Mr. Vivek Kr. Singh, MSSO
4. 6th National Conference of AIAMSWP on ‘GI disorders and Transplant-Medical Social Work perspective and challenges’, 4-5 January 2019, JIPMER, Puducherry, Participants: Mr. BR Shekhar, Chief MSSO/Ms. Gurmit Kaur, Supervising MSSO/Mr. Abhishek Rajput, MSSO
6. Orientation cum Training on Ayushman Bharat—PMJAY, 11 September 2018, National Health Agency, New Delhi, Participants: Mr. BR Shekhar, Chief MSSO and Md. Shahid, MSSO
7. National seminar on Youth Development—A Holistic Approach, 12 October 2018, Udaipur School of Social Work, Rajasthan, Participants: Mr. BR Shekhar, Chief MSSO and Mr. Pankaj Kumar, Supervising MSSO

Patient Care Services by Medical Social Welfare Unit

1. *Psycho-social and Economic assessment and Social diagnosis*: The MSSO helps the patient to get the benefits from different schemes for poor patients through their Psycho-social and Economic assessment
2. *Facilitating free medicines and surgical items*: Consultation comes from various wards to the MSSO for the Socio-economic review along with the recommendation of the Chief MSSO which helps poor/indigent patients to get free medicines/surgical items
3. Similarly poor/indigent patients getting follow-up in OPDs get help from the MSSO for free medicines/surgical items
4. *Exemption of Hospital Levy charges of BPL patients and indigent patients*: The MSSO exempts various hospital investigation and admission charges after the recommendation of the Chief MSSO on the basis of socio-economic assessment of the patients
5. *Facilitation of services available for EWS (Economically Weaker Section) patient*: As per the Honorable High Court orders, all individuals who have a family income of Rs 1 lakh or below are categorized as EWS and they are entitled to free medical treatment in 46 private hospitals in Delhi which have been built on land acquired at concessional rates from the government
6. *Facilitation of Financial Assistance through RAN (Rashtriya Arogya Nidhi)*:
   - RAN (Rashtriya Arogya Nidhi) is a centrally sponsored scheme under the Ministry of Health and Family Welfare which started in 1997 with an aim to provide financial assistance to patients, living below poverty line who are suffering from major life threatening diseases. The RAN cases are counseled and documented by Mr. Pankaj Kumar, Supervising MSSO and he represents these cases in the AIIMS RAN Subcommittee with Mr. BR Shekhar, Chief MSSO
7. *Coordination of Renal Authorization Committee and assessment of unrelated Kidney Donors*: The cases of Unrelated Kidney Donors are referred to Mr. BR Shekhar, Chief MSSO/Nodal Officer for the renal authorization. The Chief MSSO, Mr. Anil G Mali, MSSO and Mr. Vivek Kr. Singh, MSSO do the counseling, coordination and documentation to present the cases in the Renal Authorization Committee (RAC) as per THE TRANSPLANTATION OF HUMAN ORGANS ACT (TOHA), 1994
8. *Counseling services*: The Medical Social Welfare Unit is acting as the first contact point of the patients when they enter AIIMS. The patients and their attendants not only receive basic information but the MSSO gives Psycho-social Counseling and guidance to them throughout their stay in the hospital
9. *Coordination and Rehabilitation of Medico-Legal Cases (MLC) and Non-MLC Unknown/Unattended/Destitute/Orphan patients*: The Casualty MSSO coordinates with all the stakeholders to rehabilitate the unknown, without attendant, Destitute, Orphan patients through Government/NGOs
10. **Financial help through AIIMS Poor Fund:** In case of immediate need and urgency, the poor/indigent patients can get financial help from AIIMS Poor Fund. The MSSO does the socioeconomic assessment and facilitates this service through Chief MSSO.

11. **Providing Railway concession facility:** The Medical Social Welfare Unit provides Railway Concession to patients suffering from Cancer, Aplastic Anemia, TB, Leprosy, Thalassemia, Kidney transplant, Dialysis, and Deaf and mute patients as per the guidelines of the Ministry of Railways. This facility results into a very good treatment, follow-up and compliance from the patients.

12. Providing accommodation facilities to outstation patients and their attendants.

13. **Research and Training:** Imparting training to NSS, BSW, MSW students from different colleges across India and conducting and coordinating the Research Studies.

14. **Health promotional and educational activities:** Disseminating Health-education and Health-awareness through IEC material and Health-camps (e.g. Blood Donation Camp, AIDS Awareness Camp, Health Awareness Meetings).

15. **Planning and Administration:**
   - Coordination with the Hospital Administration and various departments to improve the patient welfare activities and create a more patient-friendly environment.
   - Managing various information and guidance services in the main hospital through Part-time Social Guides.

16. **Fund-raising and networking:** Coordinating and networking with various Corporate Social Responsibility (CSR) Units, trusts and donors for patient welfare.

17. **Emergency Medical Social Services (Round-the-clock) in Casualty:**
   - Providing all Medical Social Services round-the-clock including shifting and rehabilitation of patients, creating a smooth work-flow in the casualty.
   - Looking after the Medical Social Services of the entire hospital during odd hours.
   - Special services during Epidemics, Disasters and Natural Calamities for managing the patient care efficiently.
   - One Stop Centre (OSC): Coordination, Counseling and Advocacy for victims of Gender Based Violence.
## 7. College of Nursing

### Principal
Dr Manju Vatsa

### Lecturers
<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Dr Sandhya Gupta</td>
<td>Dr Deepika C Khakha</td>
<td>Dr Kamlesh K Sharma</td>
</tr>
<tr>
<td>Dr Shashi Mawar</td>
<td>Dr Poonam Joshi</td>
<td>Dr L Gopichandran</td>
</tr>
<tr>
<td>Ms Sibi Riju</td>
<td>Ms Aditi P Sinha</td>
<td>Dr Pragya Pathak</td>
</tr>
<tr>
<td>Ms Ujjwal Dahiya</td>
<td>Ms Rimple Sharma</td>
<td>Ms Cecilia MS</td>
</tr>
<tr>
<td>Mrs Manju</td>
<td>Amit Kumar Rajora</td>
<td>Ms Y Surbala Devi</td>
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<tr>
<td>Ms Smita Das</td>
<td>Mr Ajesh Kumar TK</td>
<td>Ms Milan Tirwa</td>
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### Senior Nursing Tutor
Ms Gita Razdan

### Nursing Tutor
<table>
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<th>Name</th>
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<tr>
<td>Ms Kiran Singh Simak</td>
<td>Ms Gayatri Batra</td>
<td>Ms Sucheta</td>
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<tr>
<td>Ms Babita Sahoo</td>
<td>Dr Philomina Thomas</td>
<td>Ms Meena Ara</td>
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<tr>
<td>Dr Seema Sachdeva</td>
<td>Ms Anubha D</td>
<td>Ms Neelima Raaj</td>
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<td>(on study leave)</td>
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<tr>
<td>Ms Nemkholam</td>
<td>Mr Hansaram</td>
<td>Ms Monika Sabharwal</td>
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## EDUCATION

The following students graduated this academic year from the college:

1. Undergraduate:
   - BSc (Hons.) Nursing: 85 students graduated from the four year course
   - BSc Nursing (Post Basic): 24 students graduated from the two year course

2. Postgraduate:
   - MSc Nursing: 21 students graduated from the two year course

New Students
- This academic year 77 students joined the BSc (Hons.) Nursing 1st year and 25 students joined BSc Nursing (P.B.) 1st year
- Twenty-eight students joined the MSc nursing programme this year in the following specialties:
  - Oncological Nursing: 4
  - Critical Care Nursing: 4
  - Paediatric Nursing: 5
  - Neurosciences Nursing: 3
  - Nephrological Nursing: 3
  - Cardiological/CTVS Nursing: 5
  - Psychiatric Nursing: 4

The College conducted the following sessions:
- Three groups of visitors from various educational institutions from India
- Presentation on Nursing Training in Quebec at ‘Sandrive Chauveau Sauve’, University of Montreal, Canada
- Presentation on module developed on ‘Insertion of Oro-Gastric (OG) Tube and Feeding through Oro-Gastric Tube in Neonates’ for the Skills E-Learning Telemedicine (SET), AIIMS, New Delhi (Developed by Dr Kamlesh K Sharma and Ms Levis Murry)

### CMEs/Workshops/Symposia/National and International Conferences
1. Update on ‘Paediatric Critical Care Nursing’, 29 October 2018 for nursing officers from AIIMS, New Delhi
2. Workshop on ‘Working towards Excellence’, 15 February 2019 for nursing officers from AIIMS, New Delhi
3. Workshop on ‘Palliative Care: A Promise of Quality Life’, 22 February 2019 for nursing officers from AIIMS, New Delhi
4. Update on ‘Nursing and Health care Innovations: Sharing the Learning’, 14-15 March 2019 for nursing officers from AIIMS, New Delhi

Lectures delivered

**Manju Vatsa**

1. Master of Science Nursing Course—Emergency Nursing, AIIMS, Emergency care in primary health care setting in SEAR—Preparatory meeting for promulgation of emergency nursing in SEAR, AIIMS and WHO SEAR, 3 April 2018, Delhi
2. Improving quality of nursing education, teaching practices, curriculum and residency conditions, Brainstorming session on transforming nursing education in India with a view to provide quality health care to new India@75, 25 July 2018, New Delhi
3. Role of Nurse in Prevention and Management of Common NCDs, Prevention and Management of NCDs for nurses’on the theme: ‘Nurse Practitioner for Chronic NCDs’ E, 16 August 2018, Chandigarh
4. RCT’s and Quasi experimental research designs, Video Conferencing, PhD Consortium, 24 September 2018, New Delhi
5. Experimental research designs, Video Conferencing, PhD Consortium, 25 September 2018, New Delhi
7. Quality assurance in nursing and Nursing Audit, Training course on Management for Senior Nursing Administrators, 1 November 2018, New Delhi
8. Palliative and institutionalized care of older persons, Training course on Health Care Management of Elderly, 27 November 2018, New Delhi
9. Expert discussion on controversial issues in psychosocial aspects of neuroscience nursing, 39th National Annual Conference of the Society of Indian Neuroscience Nurses (SINNCON 2018) and 67th Annual Conference of the Neurological Society of India (NSI), 16 December 2018, Rajasthan
10. Raising neuro nursing standards of practice to new heights through evidence-based practice, 39th National Annual Conference of the Society of Indian Neuroscience Nurses (SINNCON 2018) and 67th Annual Conference of the Neurological Society of India (NSI), 16 December 2018, Rajasthan
11. Evidence based practice, Video Conferencing, PhD Consortium, 9 January 2019, New Delhi
12. Symposium ‘KMC and Nurses, Third National Conference of Kangaroo Mother Care in India ‘KMCCON 2019’, Organized Jointly by The Kangaroo Mother Care Foundation, India and MM College of Nursing, Maharishi Markandeshwar Deemed to be University, (MMDU) Mullana, 24 February 2019, Haryana

**Deepika Khaka**

1. WHO Day celebration on Universal health coverage: Everyone everywhere, WHO Day celebration: Nursing Update, 6 April 2018, Meerut
2. Mental health promotion strategies, WHO Day celebration, 7 April 2018, Delhi
3. Communication among elderly—Care of the elderly in the community, Master trainer for Home care pilot project of Helpage, 9-13 April 2018, Tamil Nadu
4. Communication and IPR in clinical practice, CNE, AIIMS, 30 July 2016, New Delhi
5. Session on Team Building, CNE workshop, 5 September 2018, AIIMS, New Delhi
6. Psychosocial changes in the elderly, 6th International Orthopedic Society of India Conference, 7 September 2018, Delhi
7. 25 Guest lectures series, DPN students, 10-14 September 2018, Ranchi, Jharkhand
8. Team building and IPR, CNE for Senior Nursing Officer’s Empowerment Programme, 19 September 2018, Delhi
9. Team building and IPR, CNE for Senior Nursing Officer’s Empowerment Programme, 3 October 2018, Delhi
10. Team dynamics, Workshop on Nursing Leadership, 5 October 2018, Delhi
11. Team building and IPR, CNE for Senior Nursing Officer’s Empowerment Programme, 10 October 2018, Delhi
12. Team building and IPR, CNE for Senior Nursing Officer’s Empowerment Programme, 17 October 2018, Delhi
13. Team building and IPR, CNE for Senior Nursing Officer’s Empowerment Programme, 31 October 2018, Delhi
14. Mental health issues of the elderly, ICSSM, 16 November 2018, Delhi
15. Team building and IPR, CNE for Senior Nursing Officer’s Empowerment Programme, 5 December 2018, Delhi
16. Team building and IPR, CNE for Senior Nursing Officer’s Empowerment Programme, 18 December 2018, Delhi
17. Team building and IPR, CNE for Senior Nursing Officer’s Empowerment Programme, 19 December 2018, Delhi
19. Overview of Qualitative Research, at 5th National Conference of Nursing Research Society of India, 15 March 2019, Chandigarh
20. Panelist for the Plenary session on Long Term Care in Geriatric and other sectors, National Conclave of Long term care for the elderly organized by Helpage India, 8 March 2019, Delhi
22. Communication skill in nursing, Workshop on Infection prevention and control in critical care, 26 March 2019, Delhi
23. Conflict Resolution, CNE, 27 March 2019, Delhi

Kamlesh Kumari Sharma
1. Palliative care: An overview, Workshop on Palliative Care: A Promise of Quality Life, 22 February 2019, New Delhi
2. Palliative care: Co-ordinated, Consistent and Continuous, Workshop for AIIMS Nurses on ‘Palliative Care: A Promise of Quality Life’, 22 February 2019, New Delhi
3. Chest compression, Nursing update on ‘NRP’ organized by College of Nursing, AIIMS, 20 March 2019, Ballabgarh

Shashi Mawar
1. Management of Hypertension among elderly: Indian Scenario, Hypertension and cardiovascular diseases, 21-22 September 2018, France
2. Rehabilitation and home based care of elderly, GERICON 2018, 8 December 2018, Rajasthan
3. Basic Cardiac life support, 7th International Conference of Physical Therapy, AIIMS-2018, 20 December 2018, Delhi

Poonam Joshi
1. Medication administration, IV fluid therapy and nutritional support for children, Workshop on maternal and child health nursing, Lecture for nursing officers of SJH, 3 May 2018
2. Nursing Audit, Nursing Audit in a workshop on explore your potential for effective patient care, Nursing officers of SJH, 27 August 2018
3. Special scenarios (drowning, stroke, electrocution and acute coronary syndrome), Comprehensive life support course—Basic level for nursing officers, 20 June 2018, New Delhi
4. Triage of critically ill patients, Triage Workshop, 22 June 2018, New Delhi
5. Comprehensive life support course (drowning, stroke, electrocution and acute coronary syndrome), comprehensive life support course—Basic level for nursing officers, 9 July 2018, New Delhi
6. Basic emergency care course—Basic Life Support an introduction and (drowning, stroke, electrocution and acute coronary syndrome), comprehensive life support course—Basic level for nursing officers, 20 September 2018, New Delhi
7. Paediatric emergencies for the nursing officers, Lecture, 29 March 2019, New Delhi

L Gopichandran
1. Emergency management and Nurses Role, National Conference, 14 May 2018, UK
2. Communication methods in Neurotrauma patients, 27th Annual Conference of Neurotrauma Society of India, 17-19 August 2018, Lucknow
4. Communication methods with neuro patients, 39th Annual Conference of Society of Indian Neurosciences Nurses (SINN), 13-16 December 2018, Jaipur
5. BCLS—Indian Resuscitation Council Module, 7th International Conference of Physical Therapy, 20 December 2018, New Delhi
6. ECG, TNAI Workshop, 9 February 2019, New Delhi
7. Trauma Care Nursing, Newer Modalities Perspectives and Challenges, Workshop Army Hospital, 9-10 February 2019, New Delhi

Yumnam Surbala Devi

1. Refusal skills/How to Say NO to Substance Use, One Day Training Programme for Delhi University Nursing Students, 26 February 2019, Ghaziabad

Milan Tirwa

1. Injury based triaging, AIIMS Triage Protocol, 22 May 2018, Delhi
2. Injury based triaging, AIIMS Triage Protocol, 22 June 2018, Delhi
3. Fever alert, Emergency Capsule Course Module, 17 July 2018, Delhi
4. Various topics related to Geriatric, Home Care Training Programme, 4-5 September 2018, India
5. Circulation-External cardiac massage, Emergency care course for CRPF pharmacist, 20 September 2018, Delhi
6. Communication Skills, Communication and stress management, 26 September 2018,
7. CPR, Hands only CPR training, 10 August 2018
8. Effective communication during patient handover, Patient safety and Quality assurance, 31 January 2019
10. Sustenance of QI projects, Improving quality of care in Nursing, 8 March 2019
11. Common Emergency Drugs, Workshop on Basic Trauma Life Support, 29 March 2019, Delhi

Oral papers/posters presented

2. Anita, Khakha DC, Bhargava R, A study to assess personality, psychological distress and adjustment difficulties among nursing students at AIIMS, Fifth International Conference on Mental Health and Human Resilience, 7-8 March 2018, Barcelona, Spain
3. Bobby S, Devi YS, Gupta S, Sood M, A study to assess resilience of adult family caregiver of patient having schizophrenia and its related disorders in AIIMS, New Delhi, Mental Health and Human Resilience, 7-8 March 2019, Barcelona, Spain
5. Kataria, Gupta N, Padma MV, Jhanji S, A study to find out relapse of tobacco seeking behavior in tobacco users, recovering from stroke and the related contributing factors, AIIMS, New Delhi, India, ‘4th International Conference on Neurological Disorders and Stroke’, 9-10 July 2018, Sydney, Australia
6. Levis ML, Tirwa M, Das S, Surbala DY, Ajesh TK, Kamlesh C, Male Nurses’ Attitude as a Nursing Professional and Attitude of Female Colleagues towards Male Nurses at AIIMS, New Delhi, XXVII TNAI Biennial Conference, 11-16 December 2018, Goa


12. Tirwa M, Male nurses attitude as a nursing professional, and attitude of female colleagues towards male nurses at AIIMS, New Delhi, XXVII TNAI Biennial (76th) Conference, 11-16 December 2018, Goa, India

**RESEARCH**

**Funded projects**

**Ongoing**

1. A study to assess the knowledge and skills of nurses related to BCLS and CCLS and to evaluate the impact of the training on real time assessment and its outcome in a tertiary care facility, Smita Das, AIIMS, 3 years, 2017-2020, Rs 3.2 lakhs

2. Effectiveness of Nurse-led structured telephone heart failure management programme—A RCT, L Gopichandran, AIIMS, 2 years, 2017-2019, Rs 2 lakhs

**Departmental projects**

**Ongoing**

1. A case control study to assess musculoskeletal pain, depression and quality of life in patients with Parkinson Disease, AIIMS, New Delhi

2. A comparative study of social support on perceived needs of patients with opioid dependence syndrome and their caregivers at NDDTC, Ghaziabad

3. A cross-sectional study to assess the prevalence of renal dysfunction in children with solitary functioning kidney

4. A descriptive cross sectional study to assess the knowledge and adherence to treatment regimen among CKD Patients at AIIMS Hospital, New Delhi with a view to develop educational booklet

5. A study of knowledge, attitude and practice regarding organ and tissues donation among nurses and scope of practice and attitude of nurses to work as transplant coordinator in AIIMS, New Delhi

6. A study on effectiveness of nurse led intervention on self care behaviour, psychological symptoms and quality of life among kidney transplant recipients in a selected tertiary care hospital of New Delhi

7. A study to assess depression, coping strategies and treatment adherence in patients with cystic fibrosis with a view to develop an informational pamphlet for patients with cystic fibrosis

8. A study to assess effectiveness of educational intervention for primary care givers on knowledge regarding immunization and immunization status of children who are undergoing cardiac surgery at AIIMS, New Delhi

9. A study to assess effectiveness of educational package on knowledge and practices of caregivers of patient with spinal cord injury at JPNATC, AIIMS

10. A study to assess knowledge and practice of postnatal mothers on essential newborn care and evaluate competencies of Accredited Social Health Activists in home based newborn care in rural Haryana

11. A study to assess psychosocial, physical problem and coping strategies of patients having long term/permanent tracheotomy with a view to develop an information booklet

12. A study to assess the effectiveness of caregiver training programme on knowledge in managing aggressive patients at home

13. A study to assess the effectiveness of nurse driven mobile application (App) based discharge teaching for home healthcare practices among post operative neurosurgical patients or caregivers in a tertiary care hospital, New Delhi, India

14. A study to assess the effectiveness of patient teaching programme on knowledge of analgesic and its compliance among patients who are attending pain clinic in Dr BRA IRCH, AIIMS, New Delhi

15. A study to assess the effectiveness of structured communication by family member on clinical parameters among unconscious patients admitted in ICU, AIIMS, New Delhi

16. A study to assess the factors contributing to sensory perceptual alterations in patient admitted in critical care unit at AIIMS Hospital, New Delhi
17. A study to assess the incidence, risk factors and quality of life of patients associated with chemotherapy induced peripheral neuropathy with a view to formulate information booklet for self management
18. A study to assess the knowledge and effectiveness of compression only life support training as per Indian Resuscitation Council guidelines among relatives of AIIMS employee (lay person) residing in AIIMS campus
19. A study to assess the knowledge and practice of food related triggers for asthma attending pediatric OPD
20. A study to assess the knowledge regarding peritoneal dialysis home care and Quality of life among peritoneal dialysis patients attending AIIMS, New Delhi with a view to develop an information booklet
21. A study to assess the knowledge and practices regarding Post Percutaneous Coronary Intervention (PCI) care among nurses working in Cardiology Department of AIIMS, New Delhi with a view to develop a protocol
22. A study to assess the relationship between fluid overload and quality of sleep in patients on maintenance hemodialysis at AIIMS, New Delhi
23. A study to assess thirst intensity and thirst distress and the practices for its management among heart failure patient admitted in Cardiology Unit, AIIMS, New Delhi
24. A study to compare the perception regarding diagnosis and treatment in patients with SUD-dual diagnosis and their family caregivers and it’s relationship with therapeutic adherence at NDDTC, Ghaziabad
25. A study to identify the risk factors and prevalence of oral cancer through screening among security personnel working at AIIMS, New Delhi
26. Awareness, utilization and determinants of using financial aids and resources by cancer patients in a tertiary hospital
27. Effectiveness of organ donation E learning modules among nurses
28. Pathways to Severe mental illness care: A retrospective study of patients seeking psychiatric care at Department of Psychiatry AIIMS, Delhi
29. Randomised control trial to assess the effectiveness of scenario-based simulation learning over task training method on knowledge, skill acquisition and self-reported confidence in optimal oxygen administration to newborn’s among nursing students of selected nursing college
30. To Study Concept of Professionalism in Nursing, its Correlates and Prepare a Model Framework of Curriculum in Professionalism for Nursing Education
31. Use of piezoelectric pressure sensor in gauging pressure applied by a mechanical compression device over femoral sheath removal site and its association with patient’s level of site discomfort and post procedure complications among patients of transfemoral coronary interventions in a tertiary care hospital

Completed

1. A study to assess the prevalence of oral health problems among children undergoing chemotherapy and knowledge of their caregivers with a view to develop an information booklet on oral health for children on chemotherapy at AIIMS, New Delhi, India
3. A descriptive study to assess adherence to analgesics and determinants of its deviation among cancer patients receiving palliative therapy at pain and palliative care clinic, DR BRA IRCH, AIIMS
4. A descriptive study to assess knowledge, attitude, practice, perceived barriers and support regarding palliative and end of life care among critical care nurses working at AIIMS, New Delhi
5. A descriptive study to assess the cognitive function and quality of life of post traumatic brain injury patients attending neurosurgery opd at JPNATC with a view to develop an informational booklet at AIIMS, New Delhi
6. A randomized controlled trial to evaluate the effect of video based education on knowledge of caregivers of children with acute leukemia regarding prevention of infection during chemotherapy at AIIMS, New Delhi
7. A study of Activity Analysis of Nurses Working in Emergency Unit of AIIMS, New Delhi
8. A study to assess Knowledge and Attitude of Family Members of Hematological Cancer Patient regarding Hematopoietic Stem Cells Donation at Dr BRA IRCH, AIIMS, New Delhi with a View to Develop an Information Booklet
9. A study to assess parenting stress and psychological health of women having single parenting experience in Delhi-NCR
10. A study to assess the effectiveness of a structured heart failure clinical pathway on nurses knowledge and patient care outcomes in the Cardiology Department, AIIMS, New Delhi
11. A study to assess the effectiveness of an education booklet on knowledge of CKD among hypertensive and/or diabetic patients at AIIMS, New Delhi

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12. A study to assess the effectiveness of structured health education programme on knowledge and attitude regarding consanguinity leading to congenital heart defects in children, among students (18-25 years) of selected College of Delhi.

13. A study to assess the effectiveness of structured patient education programme on knowledge regarding anticoagulation and INR control among patients undergoing mechanical valve replacement at AIIMS, New Delhi.

14. A study to assess the impact of migraine on work productivity and disability due to the migraine and to assess the knowledge regarding migraine headache prevention with an aim to develop an educational booklet for migraine patients attending Neurology OPD at AIIMS, New Delhi.

15. A study to assess the knowledge and attitude of patients regarding Obstructive Sleep Apnea and Continuous Positive Airway Pressure Therapy, attending Sleep Clinic, Department of Medicine, AIIMS, New Delhi with a view to develop an information booklet.

16. A study to assess the knowledge and practices on diabetic care among caregivers of children with type 1 diabetes mellitus.

17. A study to assess the nutritional practices in relation to meeting the nutritional needs of critically ill children admitted in PICU, its facilitators and barriers and effect on PICU outcomes.

18. A study to evaluate the effect of low intensity intradialytic exercises on serum urea creatinine and fatigue level of CKD patients undergoing hemodialysis at a tertiary care hospital.

19. An exploratory study to assess the level of internet use and its psychological correlates among nursing students at AIIMS, New Delhi.

20. An observational study to assess medication administration practices and gaps related to transcription, administration and documentation in general wards of AIIMS, New Delhi.

21. Disease knowledge and general self-efficacy among adolescents with Thalassemia major and their parents’ perspective.


23. To assess the effectiveness of recorded metarnal voice on child’s cooperation and pain perception during bone marrow examination along with cancer at IRCH, AIIMS, New Delhi.

Collaborative projects

Ongoing

1. A cross-sectional study to assess the incidence of depression among postpartum women, Nursing Services, AIIMS Main Hospital.

2. A descriptive survey to assess the knowledge, attitude and utilization rate of family planning methods among post-partum women and its influencing factors at AIIMS, New Delhi, Nursing Services, AIIMS Main Hospital.

3. A study to assess incidence of depression among postnatal women at AIIMS, New Delhi, Psychiatry.

4. A study to assess the effectiveness of Computer Based Self-Instructional Module (CBSIM) on organ and tissue donation in terms of knowledge and acceptability of nurses working a selected ICU of AIIMS, New Delhi, Computer Facility, ORBO, Anaesthesiology and Forensic Medicine.


PUBLICATIONS

Journals: 18 Abstract: 1

PATIENT CARE

1. The faculty and students participated in outdoor and indoor patient care activities of all clinical departments of the institute.

2. The faculty and students organized and conducted:
   a. Organized Poster exhibition titled: ‘Health Care in Next Generation’: Which was awarded the Commendation Prize Commemorating 63rd Institute Day-2018 of AIIMS, New Delhi. (Dr Kamlesh K Sharma and Mr. Hansaram coordinated)
   b. Screening stalls: Blood Pressure, Hemoglobin Ht/ Wt/ BMI, Blood Sugar (Screened over 400 people)

3. Over 100 health education sessions in urban community
   1. Organized 26 exhibitions and role plays in urban community. Topics were related to current problems and all the role plays were on important World Health Days.
2. Students conducted nine health surveys in urban community. Dr Kamlesh Kumari Sharma, and Dr Shashi Mawar coordinated and supervised.

3. Organized exhibition and role plays in urban community on topics related to prevention of mental disorders on World Health Days (Dr Sandhya Gupta coordinated).

4. Organized seven programs for Community in Trilokpuri on various aspects of prevention of mental disorders (Dr Sandhya Gupta coordinated).

5. Organized seven programs for Community in OPD of NDDTC for patients’ relatives on various aspects of treatments and rehabilitation of persons recovering from substance use disorders (Dr Sandhya Gupta coordinated).

6. Conducted two surveys in Community in Trilokpuri, Kotla and Sunder nagri on readiness to change among persons using substances followed by counseling sessions (Dr Sandhya Gupta coordinated).

7. Conducted two surveys in Community in Trilokpuri, Kotla and Sunder nagri on domestic violence followed by project on strategies on domestic violence followed by counselling sessions (Dr Sandhya Gupta coordinated).

8. Conducted two community projects on child abuse, anger management and how to maintain mental health for women and adolescents in Community living in Trilok Puri followed by counselling sessions (Dr Sandhya Gupta coordinated).


AWARDS, HONOURS AND SIGNIFICANT EVENTS

Participation and awards/prizes won:

Commendation certificate given to College of Nursing for their good work for Annual Day by Director AIIMS, New Delhi; Undergraduate students won the state level prize (Third prize), Organized by TNAI, Students Nurses Association-Delhi Unit.

Dr Manju Vatsa is continuing as Founder President of Indian Association of Neonatal Nurses; General Body and Nursing Education Committee Member of Indian Nursing Council; Core group member of INC PhD Consortium; Member core group for preparation of draft Manual of Medical Sciences in the revised accreditation framework of NAAC and convener, sectoral working group-Nursing; Member Academic and Administrative Audit of MGMIHSS University, Navi Mumbai and Aurangabad; Inspector for Guru Gobind Singh Indraprastha University for College of Nursing, RML Hospital and Safdarjung Hospital, College of Nursing, AIIMS, Patna for starting PG courses in nursing; Member selection committees for AIIMS Rishikesh, AIIMS Bhubaneswar, AIIMS Patna, Institute of Liver and Biliary Sciences, New Delhi, NEIGRIHMS; Participated in various committees of AIIMS—Staff Council, Convocation, Institute Day, Selection Committee (PB Nursing), AIIMSONIANS of America Award Selection Committee, Anti Ragging Squad, Counselling for admission to MSc nursing and for 7 AIIMS for BSc (Hons) Nursing, Revision of RR’s for nursing personnel, Selection committee for MISSION DELHI project of Department of Cardiology; Supervisor for AIIMS PG Exam and Nursing Officers Exam, Task force for women safety and gender sensitization, KL Wiz CMET Technical Specification Committee, Judge for posters in Research Day at AIIMS; Invited as Judge for Hindi Essay Competition and Hindi debate competition by Hindi section, AIIMS during Hindi Pakhwara celebrations; Examiner for MSc nursing for Baba Farid University of Health Sciences Punjab, West Bengal University of Health Sciences and for PhD at INC PhD Consortium, Rajiv Gandhi University of Health Sciences; Nominated executive member of AIIMSONIANS; Acted as expert for MOHFW—To develop emergency life support courses for nurses; Expert for Mid level provider curriculum of MOH&FW at NHSRC; Acted as expert for NITI Aayog for presentation on nursing education in India; Expert member, working group for MOH as per recommendation of NITI Aayog and for subgroup on nursing education; Expert for Roundtable meeting on nursing by midterm ESICON-2019, Endocrine Society of India; Member expert group for visit to BHU for upgradation to AIIMS level as per recommendation of NITI Aayog.

Dr Deepika C Khakha was member of editorial board of the following journals: Journal of Nursing Science and Practice, Scholar Report, Indian Journal of Advanced Nursing, Journal of Comprehensive Nursing Research and Care, Journal of Community Health Management; Reviewer for the following journals: International Journal of Health and Allied Sciences, Baba Farid University Nursing Journal, Advanced Research in Nursing Science, Annals of Nursing and Practice, Journal of Community Medicine and Public Health Care, Current Psychiatry Reviews, Journal of Affective Disorders, Journal of Education Technology in Health Sciences, Asian Journal of Psychiatry; Total No of Citations-28 in National and International Journal of published work; 30 lectures/sessions/guest lecturers taken at CME/Conferences/CNE; Chaired 2 sessions at National Conferences: Chairperson for session ‘Diet in kidney disease’ at World Kidney Day on 14 March 2019 at PGIMER, Dr RML Hospital, New Delhi, Chaired a session at Qualitative research with types with special reference to nursing at 5th National Conference of Nursing Research Society of India held at PGIMER, Chandigarh on 15 March 2019; Member of the World Health Organization’s (WHO) Global Clinical Practice Network (GCPN), an international community of mental health and primary care professionals committed to furthering research and practice in global mental health;
Dr Poonam Joshi: and provided education related to hygiene maintenance, prevention of obesity and difference between good and bad touch; public to celebrate National Health Days; Organized 2 health camps in school for screening among primary school children at IGNOU, New Delhi on 24-25 July 2018; Conducted 9 rounds of health educations to create awareness among general teleconference classes on Care of Elderly at home at IGNOU, New Delhi; Have been an expert for script writing workshop Conducted BCLS and CCLS training workshops at RAK College of Nursing on 28 and 29 March 2019; Conducted two officer (grade II) group B post at Bhopal, AIIMS on 10 September 2018; Have been a guest of honor at AIIMS Patna Programme developed by Indian Society of Anesthesiology on 29 and 30 March, 2018 at RAK College of Nursing, Lajpat New Delhi; Trained 16 MSc nursing students in Basic Cardiac Life Support and Comprehensive Cardiac Life Support Programme developed by Indian Society of Anesthesiology at AIIMS, New Delhi; Trained 180 nursing officers in Basic Cardiac Life Support Training Programme for the community at AJPN Trauma Centre in October 2018; Core committee group member for finalizing SCCM/ESICM Sepsis Guideline for Paediatric Surviving Sepsis Campaign—Recognition and Management of Sepsis and Septic Shock (an international project); Contributed towards question bank for entrance and recruitment exams; Faculty in charge for Central Government Nursing Officers Recruitment Re-Exam on 28 February 2019; Chairperson for Preliminary Screening Committee for lecturers in nursing applications; PhD guide for Indian Nursing Council Consortium; Examiner/Paper setter for thirteen universities; On Doctoral Committee of PhD Nursing at AIIMS, Delhi and PhD Supervisor for Shri Jagdish Prasad Jhabarwal Tiberwla University, Rajasthan.

Dr Kamlesh K Sharma is currently pursuing the Part Time Fellowship Programme in ‘Clinical Research Methodology and Evidence Based Medicine’ under CMET with Professor Kameshwar Prasad as Chief co-coordinator at the AIIMS; Chaired a plenary session on ‘simulation in medical and nursing education-making it a reality’ on 3 March 2019 held at AIIMS in ‘SIMULUS 4 4th National Conference’, a joint meeting of PediSTARS, IPSS and INSPIRE organised by the Department of Paediatics, AIIMS from 27 February to 3 March 2019 at AIIMS, New Delhi; Adjudicated PhD thesis of University of Health Sciences, Assam (2018), Tamil Nadu, Dr MGR Medical University, Chennai in April 2018, Rajiv Gandhi University of Health Sciences, Bengaluru, Karnataka and on panel of examiner for PhD programme of ACON, Chennai under MGR University 2018; Contributed as faculty in workshop on NEOSIM (Neonatal emergencies by simulation) on 1 March 2019 held at CMET, AIIMS as part of ‘SIMULUS 4 4th National Conference’, a joint meeting of PediSTARS, IPSS and INSPIRE, organised by the Department of Paediatrics, AIIMS from 27 February to 3 March 2019 at AIIMS, New Delhi; Contributed as faculty in session on Creating Nursing Simulation Leaders, in ‘SIMULUS 4 4th National Conference’ a joint meeting of PediSTARS, IPSS and INSPIRE, organized by the Department of Paediatrics, AIIMS from 27 February to 3 March 2019 at AIIMS, New Delhi; Contributed as faculty in ‘STP’ (standard treatment protocols) workshop (Topic - Feeding) for BSc nursing 4th year batch, organized by College of Nursing on 11 and 12 July 2018 at Convergence Block, SeT facility, AIIMS, New Delhi; Inspector for College of Nursing in Himachal Pradesh in October 2018 for Indian Nursing Council; and for Rufaida College of Nursing, Jamia Hamdard University, New Delhi (February 2018) for Delhi Nursing Council (DNC); Contributing as Deputy Hostel Superintendent since December 2014; Contributed as Central Assistant Public Information Officer for College of Nursing since July 2010; Coordinator for various state level competitions on Annual Day of college; Participated in various committees of AIIMS: Chairperson, Fire Damage Assessment Committee at College of Nursing, fire at Nurses’ Hostel, Participated in preliminary screening committee for screening of applications for post of lecturer, Condemnation committee of College of Nursing, and also of AIIMS Hostels, As Member Doctoral Committee (since 26 November 2016), College of Nursing, AIIMS, New Delhi, Member secretary medical board for undergraduate nursing student; Guiding PhD candidates (Four) of National Consortium for PhD Nursing by Indian Nursing Council in collaboration with Rajiv Gandhi University of Health Sciences, Bangalore (2 each in 12th batch and 13th batch); Editorial board member for PhabLinx Journal of Community Medicine, w.e.f. June 2018; Reviewer for ‘Women’s Studies International Forum’ 2018 and ‘International Journal of Nursing and Midwifery Research, IJoNMR’; Examiner for ten universities in the country.

Dr Shashi Mawar was awarded PhD in Nursing in March 2019; Have been a member of selection committee for nursing officer (grade II) group B post at Bhopal, AIIMS on 10 September 2018; Have been a guest of honor at AIIMS Patna on Nurses Day Celebrations on 12 May 2018; Trained 180 nursing officers for BCLS and CCLS at AIIMS, New Delhi; Conducted BCLS and CCLS training workshops at RAK College of Nursing on 28 and 29 March 2019; Conducted two teleconference classes on Care of Elderly at home at IGNOU, New Delhi; Have been an expert for script writing workshop at IGNOU, New Delhi on 24-25 July 2018; Conducted 9 rounds of health educations to create awareness among general public to celebrate National Health Days; Organized 2 health camps in school for screening among primary school children and provided education related to hygiene maintenance, prevention of obesity and difference between good and bad touch; Conducted training for home care of elderly at Shimla in April 2018.

Dr Poonam Joshi: Renewal of BLS and ALS trainer by AHA in 2018-2019 and BCLS and ACLS trainer by Indian Society of Anesthesiology in 2018-2019; Participated as resource person in training of 90 laypersons in Chest Compression Only Life Support Training Programme for the community at AJPN Trauma Centre in October 2018; Core committee group member for finalizing SCCM/ESICM Sepsis Guideline for Paediatric Surviving Sepsis Campaign—Recognition and Management of Sepsis and Septic Shock (an international project); Trained 180 nursing officers in Basic Cardiac Life Support and Comprehensive Cardiac Life Support Programme developed by Indian Society of Anesthesiology at AIIMS, New Delhi; Trained 16 MSc nursing students in Basic Cardiac Life Support and Comprehensive Cardiac Life Support Programme developed by Indian Society of Anesthesiology on 29 and 30 March, 2018 at RAK College of Nursing, Lajpat
Nagar, New Delhi; Part of editorial board in TNAI for Nursing Journal of India; Acted as visiting faculty for: Jamia Hamdard, New Delhi, for PhD programme for Nursing Education and Research, BSc (Post Basic) Nursing Programme at IGNOU for Child Health Nursing at Ahilya Bai College of Nursing, New Delhi.

**Dr L Gopichandran** completed PhD from MAHER (Deemed University), Chennai in August 2018; Expert committee member in MOHFW-GOI project-preparation of manual for National Emergency Life support for nurses; Member to Adjudicate the PhD thesis of Dr MGR Medical University, Chennai; Co-coordinator of Medical Surgical Nursing Update 2019 at AIIMS, New Delhi; Completed part time fellowship programme on Clinical Research Methodology and Evidence Based Medicine conducting by Clinical Epidemiology Unit with CMET, AIIMS (2017-2019 BATCH); External Examiner for BSc and MSc (Nursing) for various institutes.

**Ms Ujjwal Dahiya** was Coordinator and Resource person for Education and Training Programme for MSc nursing students and BSc nursing students on Deceased Organ and Tissue Donation in collaboration with ORBO, AIIMS, New Delhi.

**Ms Rimple Sharma** cleared pre PhD Exam in first position conducted by School of Health Sciences, IGNOU, New Delhi.
8. Research Section

Dean (Research)
Chitra Sarkar

Associate Dean (Research)
Pramod Garg
(up to 23 April 2018)
Vineet Ahuja
(from 23 April 2018)

Administrative Officer
Elias P

Accounts Officer
Meenkashi Dabral

Stores Officer
Narender Kumar

HIGHLIGHTS

1. Ongoing
   a. Intramural research grants for Assistant Professors and Associate Professors
   b. Extramural research grants
   c. Research Methodology Workshop
   d. AIIMS Excellence Awards for Best Published Papers
   e. Endowment fund—Travel fellowships

2. New initiatives
   a. Enhancement of Intramural Research Grants—Collaborative inter-disciplinary, and collaborative inter-
      institutional intramural grants for all levels of faculty
   b. Infrastructure capacity building—CCRF, CRU
   c. MOU signing and Open House Fora
   d. IPR-TTD Symposium
   e. Endowment fund—Augmentation of Travel Fellowships and initiation of Oncology Research Awards
   f. Research Projections—e-Newsletter, e-Grants update
   g. AIIMS Annual Research Day

INTRAMURAL RESEARCH GRANTS

- **Intramural research grants for Assistant Professor and Associate Professors at AIIMS**
  - Single Principal investigator (PI) with co-investigators
  - Funding: Rs 5 lakhs per year up to a maximum of 2 years
  - Monitored by the Internal Project Review Committee

- **Intramural Inter-disciplinary collaborative research projects for all levels of faculty at AIIMS**
  - Two Principal investigators from two different departments/disciplines with complementary expertise
  - Funding: Rs 5 lakhs per year per PI for 2 years (Total Rs 20 lakhs)
  - Monitored by External Project Review Committee

- **Inter-Institutional collaborative research projects**
  - IIT-Delhi, IIT-Kharagpur, THSTI
  - Two Principal investigators from two different institutes with complementary expertise
  - Funding (intramural from both institutions): Rs 5 lakhs per year per PI for two years (Total Rs 20 lakhs)
  - Monitored by External Project Review Committee

<table>
<thead>
<tr>
<th>Intramural Research Grant Schemes</th>
<th>Total Proposals Received</th>
<th>Projects Sanctioned</th>
<th>Projects Registered/Allotted</th>
<th>Amount Sanctioned to Allotted Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intramural projects</td>
<td>92</td>
<td>90</td>
<td>81</td>
<td>3,72,23,805</td>
</tr>
<tr>
<td>Funding Agency</td>
<td>Number of Extramural Projects</td>
<td>Grant received (Rs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------------------</td>
<td>--------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DST</td>
<td>136</td>
<td>16,29,84,438.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBT</td>
<td>103</td>
<td>27,91,60,131.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICMR</td>
<td>141</td>
<td>35,68,63,377.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>247</td>
<td>48,98,53,449.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>627</strong></td>
<td><strong>1,28,88,61,395.73</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Six Centres of Advanced Research and Education (CARE) were sanctioned by ICMR to faculty at AIIMS in the following departments: Gastroenterology (2), Endocrinology (1), Psychiatry (1), Pulmonary Medicine (1) and Laboratory Oncology (1)
- Three SPARC projects were sanctioned to faculty at AIIMS

**INFRASTRUCTURE CAPACITY BUILDING**

- **Central Core Research Facility (CCRF)**
  - Integrated hub of contemporary technologies and laboratories in advanced areas of BSL2/3, Genomics, Proteomics, Bioanalytics, Bioinformatics, Microscopic imaging, flow cytometry and general facility
  - Accessible to all faculty, scientists, researchers and students of all the departments of the institute
  - In the process of establishment on the 9th floor of the Convergence Block
- **Clinical Research Unit**
  - The proposal to establish a Clinical Research Unit at AIIMS was approved by the Academic Committee and Governing Body
  - Being planned to provide assistance in development, application, and implementation of investigator initiated research in compliance with the best practices
  - To provide resources and services to advance clinical research and inform the best practices for clinical research

**MOU SIGNING AND OPEN HOUSE SESSIONS**

- MOUs were signed between AIIMS and IIT-Delhi, IIT-Kharagpur, THSTI, IGIB
- Open house sessions were held between AIIMS and IIT-Delhi (29 August 2018) and AIIMS and THSTI (3 December 2018) where faculty from both institutes presented their ongoing research projects as well as newer areas of research interest and collaboration

**INTELLECTUAL PROPERTY RIGHTS AND TECHNOLOGY TRANSFER DIVISION**

- A Symposium on Intellectual Property Rights and Technology Transfer titled ‘Accelerating Innovations in Medical Sciences’ was organized on 3 October 2018. The highlights of the Symposium were inauguration of the AIIMS IPR and TTD website, lectures on IPR policy of AIIMS, Translation in academic research: Changing scenario, Role of incubators in academic research, and Relevance of funding and taking forward academic innovations

**RESEARCH METHODOLOGY WORKSHOPS**

- Research Methodology Workshops are being held regularly for resident doctors

**ENDOWMENT FUND**

- Augmentation of number of travel fellowships for students, residents, PhD scholars, and research staff to participate in international conferences
- Meeting being held every two months for selection of candidates for award of travel grant

<table>
<thead>
<tr>
<th>Months</th>
<th>Approved Applications</th>
<th>Amount Sanctioned (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>April to June 2018</td>
<td>8</td>
<td>3,80,000</td>
</tr>
<tr>
<td>July to September 2018</td>
<td>8</td>
<td>3,20,000</td>
</tr>
</tbody>
</table>
Table: Oncology awards initiated in 2018-2019. The following faculty received the awards:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name</th>
<th>Department</th>
<th>Publication Title</th>
<th>Category</th>
<th>Prize</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M Vanathi</td>
<td>Dr RP Centre for Ophthalmic Sciences</td>
<td>Tear inflammatory mediators and protein in eyes of post allogenic hematopoietic stem cell transplant patients.</td>
<td>Clinical</td>
<td>First</td>
</tr>
<tr>
<td>2</td>
<td>Sanjeev Kumar Gupta</td>
<td>Laboratory Oncology</td>
<td>Molecular genetic profile in BCR-ABL1 negative pediatric B-cell acute lymphoblastic leukemia can further refine outcome prediction in addition to that by end-induction minimal residual disease detection</td>
<td>Clinical</td>
<td>Second</td>
</tr>
<tr>
<td>3</td>
<td>Ritu Gupta</td>
<td>Laboratory Oncology</td>
<td>Nucleic acid-based risk assessment and staging for clinical practice in multiple myeloma</td>
<td>Clinical</td>
<td>Third</td>
</tr>
<tr>
<td>4</td>
<td>Sharmistha Dey</td>
<td>Biophysics</td>
<td>Diagnostic significance of p38 isoforms (p38α, p38β, p38γ, p38δ) in head and neck squamous cell carcinoma: Comparative serum level evaluation and Design of Novel Peptide Inhibitor Targeting the Same</td>
<td>Basic</td>
<td>First</td>
</tr>
<tr>
<td>5</td>
<td>Meher Chand Sharma</td>
<td>Pathology</td>
<td>Transcriptional co-expression regulatory network analysis for Snail and Slug identifies IL1R1, an inflammatory cytokine receptor, to be preferentially expressed in ST-EPN-RELA and PF-EPN-A molecular subgroups of intracranial ependymomas</td>
<td>Basic</td>
<td>Second</td>
</tr>
<tr>
<td>6</td>
<td>Savita Yadav</td>
<td>Biophysics</td>
<td>Identification and validation of salivary proteomic signatures for non-invasive detection of ovarian cancer</td>
<td>Basic</td>
<td>Third</td>
</tr>
</tbody>
</table>

**RESEARCH PROJECTIONS**

- E-research newsletter has been started and being published quarterly
- E-grants update are being provided to the faculty on regular basis
- A committee has been set up for promotion of public awareness of research at AIIMS

**AIIMS EXCELLENCE AWARDS FOR BEST PUBLISHED PAPERS**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name, Designation and Department</th>
<th>Paper/Publication Title</th>
<th>Name of Journal</th>
<th>Award Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manjari Tripathi, Professor, Neurology</td>
<td>Surgery for drug-resistant epilepsy in children</td>
<td>The New England Journal of Medicine</td>
<td>First Prize</td>
</tr>
<tr>
<td>2</td>
<td>Jaya S Tyagi, Professor and Head, Biotechnology</td>
<td>Multifaceted remodeling by vitamin C boosts sensitivity of Mycobacterium tuberculosis subpopulations to combination treatment by anti-tubercular drugs</td>
<td>Journal of Redox Biology</td>
<td>First Prize</td>
</tr>
<tr>
<td>Rank</td>
<td>Name of the Author</td>
<td>Department</td>
<td>Title of the Presentation</td>
<td>Journal</td>
</tr>
<tr>
<td>------</td>
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</tr>
<tr>
<td>3</td>
<td>Sameer Bakhshi, Professor, Medical Oncology</td>
<td>Metronomic chemotherapy vs best supportive care in progressive paediatric solid malignant tumors: A randomized clinical trial</td>
<td>JAMA Oncology</td>
<td>Second Prize</td>
</tr>
<tr>
<td>4</td>
<td>Shyam S. Chauhan, Professor, Biochemistry</td>
<td>Cathepsin L and B as potential markers for liver fibrosis: Insights from patients and experimental models</td>
<td>Clinical and Translational Gastroenterology</td>
<td>Second Prize</td>
</tr>
<tr>
<td>5</td>
<td>Sachin Talwar, Cardiothoracic and Vascular Surgery</td>
<td>Effect of administration of allopurinol on postoperative outcomes in patients undergoing intracardiac repair of tetralogy of Fallot</td>
<td>The Journal of Thoracic and Cardiovascular Surgery</td>
<td>Third Prize</td>
</tr>
<tr>
<td>6</td>
<td>G Sethuraman, Professor, Dermatology and Venereology</td>
<td>Development of a clinical diagnostic matrix for characterizing inherited epidermolysis bullosa</td>
<td>British Journal of Dermatology</td>
<td>Third Prize</td>
</tr>
<tr>
<td>7</td>
<td>Kunzang Chosdol, Professor, Biochemistry</td>
<td>FAT1 modulates EMT and stemness genes expression in hypoxic glioblastoma</td>
<td>International Journal of Cancer</td>
<td>Third Prize</td>
</tr>
<tr>
<td>8</td>
<td>DS Arya, Professor, Pharmacology</td>
<td>Apigenin ameliorates streptozotocin-induced diabetic nephropathy in rats via MAPK-NF-κB-TNF-α and TGF-β1-MAPK-fibronectin pathways</td>
<td>American Journal of Physiology, Renal Physiology</td>
<td>Third Prize</td>
</tr>
<tr>
<td>9</td>
<td>Rima Dada, Professor, Anatomy</td>
<td>Yoga- and meditation-based lifestyle intervention increases neuroplasticity and reduces severity of major depressive disorder: A randomized controlled trial</td>
<td>Restorative Neurology and Neurosciences</td>
<td>Certificate of Commendation</td>
</tr>
<tr>
<td>10</td>
<td>Rohit Saxena, Professor, Dr RP Centre for Ophthalmic Sciences</td>
<td>Incidence and progression of myopia and associated factors in urban school children in Delhi: The North India Myopia Study (NIM Study)</td>
<td>PLOS ONE</td>
<td>Certificate of Commendation</td>
</tr>
<tr>
<td>11</td>
<td>Sheffali Gulati, Professor, Paediatrics</td>
<td>Development of All India Institute of Medical Sciences-Modified International Clinical Epidemiology Network Diagnostic Instrument for neuromotor impairments in children aged 1 month to 18 years</td>
<td>Frontiers in public Health</td>
<td>Certificate of Commendation</td>
</tr>
<tr>
<td>12</td>
<td>Rajesh Sagar, Professor, Psychiatry</td>
<td>Assessment of cognitive functions in bipolar I disorder: A 1-year naturalistic follow-up study</td>
<td>Indian Journal of Psychiatry</td>
<td>Certificate of Commendation</td>
</tr>
<tr>
<td>13</td>
<td>Sharmista Dey, Associate Professor, Biophysics</td>
<td>5-LOX in Alzheimer’s Disease: Potential serum marker and in vitro evidences for rescue of neurotoxicity by its inhibitor YWCS</td>
<td>Molecular Neurobiology</td>
<td>Certificate of Commendation</td>
</tr>
<tr>
<td>14</td>
<td>MC Sharma, Professor, Pathology</td>
<td>C11orf95-RELA fusions and upregulated NF-KB signalling characterise a subset of aggressive supratentorial ependymomas that express LICAM and nestin</td>
<td>Journal of Neurooncology</td>
<td>Certificate of Commendation</td>
</tr>
</tbody>
</table>

**FIRST ANNUAL RESEARCH DAY**

- **First Annual AIIMS Research Day** was celebrated on 26 March 2019. Professor MK Bhan was the Chief Guest and delivered the AIIMS Diamond Jubilee Oration. A total of 423 abstracts were received across all categories of students and residents. They were reviewed by screening committees of faculty members and the top 3 abstracts were selected for oral presentations while the remaining were put in the poster category. Prizes were awarded to the best oral papers and posters in various categories (MBBS, MSc, PhD, JR, SR).

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Abstracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBBS</td>
<td>16</td>
</tr>
<tr>
<td>MSc</td>
<td>37</td>
</tr>
<tr>
<td>PhD</td>
<td>148</td>
</tr>
</tbody>
</table>
The highlight of the Research Day was panel discussion on “Building Medical Research Trajectory in India” by the Secretaries of DBT, DST, and ICMR-DHR along with Dr VK Paul (member, Niti Aayog) along with Dr Randeep Guleria, Director, AIIMS. The panel discussion was moderated by Professor Rakesh Aggarwal, Director, JIPMER, Puducherry.

A booklet titled “Research at AIIMS” and a “Directory of Research Interests of Faculty and Scientists” at AIIMS have been published for wider publicity of AIIMS research activities.
9.1. Anaesthesiology, Pain Medicine and Critical Care

Professor and Head
R. K. Batra (upto 31 July 2018)
Rajeshwari Subramaniam (from 1 August 2018)

Professors
Anjan Trikha
Lokesh Kashyap
Vimi Rewari
Jyotsana Punj
Anjolie Chhabra
Maya Dehran
Ganga Prasad
Vanlal Darlong
Babita Gupta (JPNA Trauma Centre)
Dilip R Shende
Virender Kumar Mohan
Renu Sinha (Dr RP Centre)
Ravindra Kumar Pandey
Chhavi Sawhney (JPNA Trauma Centre)

Professors
Anjan Trikha
Lokesh Kashyap
Vimi Rewari
Jyotsana Punj
Anjolie Chhabra
Maya Dehran
Ganga Prasad
Vanlal Darlong
Babita Gupta (JPNA Trauma Centre)

Associate Professors
Dalim Kumar Baidya (CDER)
Devalina Goswami (CDER)

Assistant Professors
Puneet Khanna
Debesh Bhoi
Souvik Maitra
Kanil Ranjith Kumar
Nishant Patel
Abhishek Kumar (Contract)
Vineeta Venkateswaran (Contract)

Assistant Professors
Puneet Khanna
Debesh Bhoi
Souvik Maitra
Kanil Ranjith Kumar
Nishant Patel
Abhishek Kumar (Contract)
Vineeta Venkateswaran (Contract)
Bikash Ranjan Ray
Shailendra Kumar (IVF)
Thilaka Muthiah
Rakesh Kumar (Dr RP Centre)
Arshad Ayub (Dr RP Centre)
Christopher Dass (Contract)
Rahul Kumar Anand
Manpreet Kaur
Akhil Kant Singh
Kulbushan Saini
Yudhayavir Singh (Contract)
(JPNA Trauma Centre)
Ajisha Aravindam (Contract)
Ajay Kumar (Contract)

HIGHLIGHTS
Professor Rajeshwari Subramaniam took over as Head of the Department of Anaesthesiology, Pain Medicine and Critical Care on 1 August 2018. Since April 2018 the department has conducted workshops/conferences (Figures 1-3). The department started the three years course in Bachelor of Science Degree in Operation Theatre Services and a one-year fellowship programme in Pain Medicine. The department also won many awards in the multiple Institute-wide activities over the year (Figures 4 and 5).

Work on the Institute Code Blue Programme has been initiated under the leadership of Professor Rajeshwari Subramaniam.

Figure 1. 11th IAPA Conference
Figure 2. PG Assembly
Figure 3. PG Assembly
EDUCATION

The department started the 3 years BSc (OT technology) Course for the OT services. The programme admits 20 students per year. One-year fellowship programme in Acute and Chronic Pain has also been started. This course admits 2 students per year.

As part of development of innovative teaching methodology using blended learning (Both online and hands-on), faculty members have been involved in developing skill modules at the SET (Skills-E-learning-Telemedicine) facility. Drs Rashmi Ramachandran, Manpreet Kaur and Thilaka have developed a skill teaching module for Endotracheal Intubation, LMA insertion, Surgical Handwashing and Gowning. They have also conducted multiple teaching sessions for undergraduate students on these and other modules at the skill centre.

Anaesthesia faculty and technical staff from Rohtak Medical College and Shimla Medical College attended short term training programme in Renal Transplant Anaesthesia.

CME/Workshop/Symposium/National-International Conference

1. CME Mechanical Ventilation, 21-22 July 2018 at JL Auditorium, AIIMS
2. AIIMS Anaesthesiology Post-Graduate Assembly (AAPGA), 18-21 October 2018 at JL Auditorium, AIIMS
3. Comprehensive Ultrasound for Anaesthesiologists (CUSA), 1-2 December 2018
4. 11th Annual Conference of Indian Association of Paediatric Anaesthesiologist’s (IAPA), 8-10 February 2019 at JL Auditorium, AIIMS
5. Workshops conducted as part of IAPA Annual Conference, 8 February 2019
   a) Paediatric Basic and Advanced Life Support
   b) Paediatric Difficult Airway
   c) Point of Care Ultrasound (POCUS)
   d) Paediatric Anaesthesia Crisis Simulation (PACS) Workshop
   e) Paediatric Regional Anaesthesia
6. Critical Care Update on Fluid, Electrolyte and Acid-Base Disorders (FEAD), 16-17 March 2019 at JL Auditorium, AIIMS
7. ISA Monthly Clinical Meet, Delhi Chapter, 26 February 2019
8. Second National Conference of OT Technologists on techniques in Anaesthesia Surgery and Critical Care, 2 February 2018
9. 8th OT Technician Workshop, 28 July 2018

Lectures delivered

Rajeshwari Subramaniam

1. The morbidly adherent placenta: What anesthesiologists should know, ISACON Delhi Annual Conference, 13 April 2018, Delhi
2. Ethical issues in prolonged mechanical ventilation, CME on Mechanical Ventilation, 22 July 2018, Delhi
3. Extubation of the difficult airway, RAALS 2018, 3 August 2018, Chennai
4. Morbidly obese parturient for emergency LSCS, RAALS 2018, 3 August 2018, Chennai
5. Paediatric Fluid Therapy, IAPA CME BHU 2018, 19 August 2018, Varanasi
8. Lung Isolation Techniques and one-lung ventilation, AIIMS PGA 2018, 21 October 2018, Delhi
9. Ethics issues in Clinical Practice, CUSA 2018, 1 December 2018, Delhi
10. Autonomic receptors in anaesthesia, RACE 2019, 25 January 2019, Chennai
11. Extubation of the Paediatric Patient: Art or Science? IAPA 2019, 10 February 2019, Delhi
12. Ethics and professional responsibilities in present-day scenario, 8th Interventional Perioperative Sonography (IPSA), 16 February 2019, Delhi
14. Ethical issues in blood transfusion, Fluid, Electrolyte and Acid-Base Disorders, 16 March 2019, Delhi

**Anjan Trikha**

1. Anaesthesia challenges faced by me in last three decades, PROACT Pune CON 2018 Conference, 25 August 2018, Pune
8. Anemia in Pregnancy: Long Case, 3rd Central Zone PG Assembly of Anaesthesiology and CCM, 13 March 2019, Lucknow

**Maya Dehran**

1. Basic physiology of mechanical ventilation, Critical Care CME, 21 July 2018, New Delhi

**Dilip Shende**

1. Physics of mechanical ventilation, Mechanical Ventilation CME, 21 July 2018, Delhi
2. Pain relief for lower extremity tumor surgeries, 8th National Conference of the Academy of Regional Anaesthesia of India, 2018 (AORA 2018), 10 August 2018, Kerala
4. Concept of TCI (Targetcontrolled infusion) and Role in Paediatric Anaesthesia, ISACON West Zone 2018, 7 October 2018, Ahmednagar, Maharashtra

**Lokesh Kashyap**


**Virender Kumar Mohan**

2. Trigeminal Neuralgia, CME and Live Workshop on Interventional Pain Management, 7 October 2018, Bhopal
3. Evidence based management in a patient with discogenic pain, 7th Annual Conference of Society for Ultrasound in Anaesthesia, 30 October 2018, Jodhpur
5. Thoracic Paravertebral and Erector Spinae Plane Block, Comprehensive Symposium on Ultrasound for Anaesthesiologists (CUSA) Regional Anaesthesia Workshop, 1 December 2018, Delhi

Vimi Rewari
1. Do we need a separate obstetric ICU? North Zone ISACON and ISACON Delhi, 13 April 2018, Delhi
2. Pulmonary complications after liver transplantation, TRANCRIT, 13 May 2018, Delhi
3. Mechanical Ventilation in Chronic Obstructive Pulmonary Disease, CME on Mechanical Ventilation, 21 July 2018, Delhi
4. Cardiopulmonary evaluation for liver transplant—How far can we go? 4th CLBS (Centre for Liver and Biliary Sciences) Symposium, 15 September 2018, Delhi
5. Top tips from 5 papers in obstetric anaesthesia and critical care—2016 to current, 11th National Conference of the AOA (AOA-2019), 30 September 2018, Jodhpur
6. Patient with Cardiac Implantable Electronic Devices (CIEDs) for Non Cardiac Surgery, AIIMS Anaesthesiology Post-Graduate Assembly (AAPGA 18), 18 October 2018, Delhi
8. Ultrasound guided bilateral rectus sheath block with multimodal analgesia versus intrathecal morphine in gynaecological oncology surgery—A non inferiority trial, Delhi ISA Monthly Meeting, 26 February 2019, Delhi
10. Physiology of fluid resuscitation, CME on Fluid, Electrolyte and Acid Base Disorders, 16 March 2019, Delhi
11. Panel discussion on Fluid therapy in various scenarios, CME on Fluid, Electrolyte and Acid Base disorders, 16 March 2019, Delhi

Vanlal Darlong
1. Role of supraglottic airway devices in difficult airway, ISACON-NE, 7 September 2018, Imphal
2. Rescue nerve block in upper Limb with USG Supraglottic airway devices in difficult airway CME cum Workshop on Peripheral Nerve Block with USG Airway Management, 4-5 October 2018, Male, Maldives
3. Interscalene and Supraclavicular Brachial Plexus Block using USG, Annual academic session and pre-congress workshop of the faculty of pain medicine of the College of Anaesthesiologist and intensivist of Sri Lanka, 17-18 October 2018, Jaffna, Sri Lanka
4. Rescue Nerve Block in Upper Limb with USG, Annual academic session and pre-congress workshop of the faculty of pain medicine of the College of Anaesthesiologist and intensivist of Sri Lanka, 17-18 October 2018, Jaffna, Sri Lanka

Renu Sinha
2. Videolaryngoscope, Anaesthesia management in obese patients, ISACON-NE 2018, 8 September 2018, Imphal, Manipur
4. Paediatric case with difficult airway, Difficult airway management workshop and USG guided regional anaesthesia workshop, 4 October 2018, Maldives
5. Minimally invasive airway management, Difficult airway management workshop and USG guided regional anaesthesia workshop, 5 October 2018, Maldives
6. Ultrasound: Basic principle and knobology, Difficult airway management workshop and USG guided regional anaesthesia workshop, 6 October 2018, Maldives
7. USG guided infraclavicular and axillary brachial plexus block, Difficult airway management workshop and USG guided regional anaesthesia workshop, 6 October 2018, Maldives
8. USG guided Sciatic Nerve Block, Difficult airway management workshop and USG guided regional anaesthesia workshop, 7 October 2018, Maldives
10. USG guided infraclavicular and axillary brachial plexus block, Annual Academic Sessions and Pre Congress Workshops of Faculty of Pain Medicine of the College of Anaesthesiologist and Intensivists of Sri Lanka (COAISL), 17 October 2018, Jaffna, Sri Lanka
11. USG guided Sciatic Nerve Block, Annual Academic Sessions and Pre Congress Workshops of Faculty of Pain Medicine of the College of Anaesthesiologist and Intensivists of Sri Lanka (COAISL), 18 October 2018, Jaffna, Sri Lanka
13. Transverse Abdominis and Rectus Plane Block, CUSA 2018, 2 December 2018, Delhi

Ravindra K Pandey
2. Ultrasound guide Lower Extremity Blocks (Femoral N, Obturator N, Facia Iliaca Compartment Block, 7th ICPM—International Conference on Pain Medicine, 27 October 2018, Jodhpur
5. Ultrasound guided Paravertebral, PEC I and II and SAP Blocks, Annual Academic Pain Sessions of College of Anesthesiologists and Intensivists of Sri Lanka, 18 October 2018, Jaffna, Sri Lanka
8. Lectures and Video demonstrations on Lower Limb Blocks, Paravertebral, PEC I and II and SAP Blocks, 18 October 2018, Jaffna, Sri Lanka
9. Use of imaging for management of pain; Annual Academic Pain Sessions of College of Anesthesiologists and Intensivists of Sri Lanka, 19 October 2018, Jaffna, Sri Lanka
10. Fiberoptic Bronchoscopy and Video laryngoscopy “Basics and Beyond”, CME on Application of Ultrasound on Regional Anaesthesia and Workshop on Difficult Airway Management, 4 October 2018, Male, Maldives
11. Ultrasound guided lower extremity and truncal blocks (PVB PECS and SAP), CME on application of ultrasound on Regional Anaesthesia and Workshop on Difficult Airway Management, 7 October 2018, Male, Maldives

Anjolie Chhabra
1. Has neuraxial anaesthesia decreased morbidity and mortality in obstetrics, 8th Annual National Conference of the Association of Regional Anaesthesia (AORA), 10 August 2018, Trivandrum
2. Thoracic Paravertebral Block and Serratus Plane Block, 8th Annual National Conference of the Association of Thoracic Anaesthesia (AORA)—Regional Anaesthesia Workshop, 12 August 2018, Trivandrum
3. USG Regional Anaesthesia, AIIMS Anaesthesiology PG Assembly 2018, 21 October 2018, New Delhi
4. Brachial Plexus Blocks above Clavicle: Interscalene and Supraclavicular Block, Comprehensive Symposium on ultrasound for the Anaesthesiologists, 2 December 2018, New Delhi
5. Issues in Regional Anaesthesia Blocks and studies—Ethics, communication and consent, Comprehensive Symposium on Ultrasound for the Anaesthesiologists, 3 December 2018, New Delhi
6. Paediatric Paravertebral and Erector Spinae Block, 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologists—Regional Anaesthesia Workshop, 8 February 2019, New Delhi
7. Paediatric caudal catheter, 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologists—Regional Anaesthesia Workshop, 8 February 2019, New Delhi
8. TIVA—TCI in Paediatric Anaesthesia, 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologists, 9 February 2019, New Delhi
9. Paravertebral and Erector Spinae Block, 8th Interventional Perioperative Sonography Workshop and Conference, 16 February 2019, New Delhi

Babita Gupta
1. Trauma Anaesthesia Practice: Problem and Management, RSACP 2018, 7 April 2018, Jaipur
3. Trauma Guidelines, ICA 2018, 29 September 2018, Mumbai
4. Damage control resuscitation, ISA Rajasthan, 23 September 2018, Bikaner

Chhavi Sawhney
1. Maintenance of Braindead potential organ donor, 16th Annual Delhi Critical Care Symposium, 19 August 2018, Gurugram

Rashmi Ramachandran
1. Preoperative alpha blockade is mandatory for patients with pheochromocytoma, ENDOSURG, 20 April 2018, Delhi
2. Panel discussion: Creating champions: Training experienced simulation facilitators at my hospital—Panelist, Simulus-4, 3 March 2019, Delhi
3. Moderator—Safety Culture by Simulation, Simulus-4, 2 March 2019, Delhi
4. Neonatal airway management, CME—Paediatric Anaesthesia—The newborn and the neonate, 23 March 2019, Delhi

Dalim Kumar Baidya
1. Race Ethnicity and Geography in Sepsis, Delhi Critical Care Symposium (ISCCM Delhi Branch), 18 August 2018, Delhi
2. Airway management in infectious diseases, National Airway Conference 2018 (By All India Difficult Airway Association), 7-9 September 2018, Kolkata
3. Paediatric Lung Isolation, National Airway Conference 2018, 7-9 September 2018, Kolkata
4. Pre-hospital Trauma and Airway Management, ISACON East Zone 2018, 5-7 October 2018, Kolkata
5. Do Not Resuscitate (DNR), ISACON East Zone 2018, 5-7 October 2018, Kolkata
7. Panel Discussion on DIC in ICU—Panelist, ACCORDION 2018, 2 December 2018, New Delhi
8. Sepsis induced Myocardial Dysfunction, Cardiac and Lung Ultrasound and Echo (CLUE), 15-16 December 2018, New Delhi
9. Technology in Health Care, Bio-Technology and Bio-Medical Engineering—CEP Workshop, 17 December, Delhi
10. Emergency Life Support, Bio-Technology and Bio-Medical Engineering—CEP Workshop, 18 December, Delhi
12. Antifungal therapy in liver transplant patients’, Institute of Liver and Biliary Sciences International Conference, 17 February 2019, Delhi
13. Thrombocytopenia in ICU, ISTH-ILBS International Conference, 2 March 2019, New Delhi
14. Role of Vitamin D in ICU, Fluid Electrolyte and Acid base Disorders (FEAD), 16 March 2019, New Delhi

Devalina Goswami
1. Anaesthetic concerns in Maxillofacial Surgery, North Zone ISA and ISACON Delhi 2018, 13 April 2018, New Delhi
2. Pre and Intraoperative Anaesthetic concerns in Orthognatic Surgery, First AIIMS Orthognatic workshop with hands on, 25 September 2018, New Delhi
3. Anaesthesia in laparoscopic surgery, 58th AMASI Skill Course, 19 October 2018, New Delhi
4. Perioperative management of Thyrotoxicosis, AIIMS Anaesthesiology Post Graduate Assembly 2018, 19 October 2018, AIIMS, New Delhi
5. Chest X ray (workshop), AIIMS Anaesthesiology Post Graduate Assembly 2018, 20 October 2018, New Delhi
Shailendra Kumar
1. Sedation in Neuro ICU, AIIMS Neuroanaesthesia Update, 4 November 2018, AIIMS, New Delhi
2. Truncal Block, CUSA Workshop, 2 December 2018, AIIMS, New Delhi
3. Cuffed tube, Cuffed manometer, Proseal LMA, 11th IAPA Workshop, 8 February 2019, AIIMS, New Delhi
4. Basic Life Support (BLS), National Programme for Trauma Care Workshop, 11 January 2019, GMR Terminal 2 Airport, New Delhi

Puneet Khanna
1. Perioperative clinical assessment of Pain, Pain and somatosensory assessment in humans, 12 April 2018, New Delhi
2. Strike the Right Balance Crystalloids and Colloids, Fluids by Society of Anesthesiology, 11 May 2018, Meerut
4. Labor Analgesia, ISAACON UK, 13 October 2018, AIIMS, Rishikesh
5. LAST, ISAACON 2018, Annual Conference, 27 November 2018, Agra
7. USG in Critical Care Workshop, Clue Workshop, 16 December 2018, ILBS, New Delhi
8. USG in Critical Care Workshop, USG Workshop, 22 December 2018, Jabalpur

Rahul Kumar Anand
1. Management of Cardiac arrest, Cardiac Anaesthesia CME, 21 September 2018, CN Center AIIMS, New Delhi
2. Ultrasound guided decision for Shock, CLUE 2018, 16 December 2018, ILBS, New Delhi
3. Lung and Ultrasound guided decisions for shock, CLUE Jabalpur, 22 December 2018, Jabalpur
4. COAD management in ICU, CLUE Jabalpur, 22 December 2018, Jabalpur
5. Airway, Cardiac and Abdominal Ultrasound in Critical Care, CLUE Nagpur, 11 January 2019, Nagpur
6. Point of care Cardiac Ultrasound, IAPA, POCUS Workshop, 8 February 2019, JPNTC, AIIMS, New Delhi
7. Lung and Ultrasound guided decisions for shock, POCUS Workshop 2019, 16 February 2019, AIIMS, Patna

Bikash Ranjan Ray
1. Management of Agitation in ICU, CME in Psychiatry, 9 April 2018, AIIMS, New Delhi
2. Ultrasound Guided Brachial Plexus Block, ARAW-2018 (Advanced Regional Anaesthesia Workshop), 1 September 2018, Health World Hospital, Durgapur
3. Subsequent (2nd step) management of Cardiac arrest, Cardiac Anaesthesia CME, 21 September 2018, CN Center, AIIMS, New Delhi
4. Ultrasound guided regional anesthesia, ISA Uttarakhand 2018, 12 October 2018, AIIMS, Rishikesh
7. Ultrasound guided Sciatic Nerve Block, CUSA 2018, 1 December 2018, AIIMS, New Delhi
9. Airway and Cardiac Ultrasound, CLUE Jabalpur, 22 December 2018, NSCB Medical College, Jabalpur
10. Airway, Cardiac and Abdominal Ultrasound in Critical Care, CLUE Nagpur, 11 January 2019, Arise Hospital, Nagpur
11. Point of care Cardiac Ultrasound, IAPA, POCUS Workshop, 8 February 2019, JPNTC, AIIMS, New Delhi
12. Airway, cardiac and Abdominal ultrasound in critical care, POCUS Workshop 2019, 16 February 2019, AIIMS, Patna

Debesh Bhoi
1. SAP Block and PECS Block, CUSA 2018, 1 December 2018, AIIMS, New Delhi
2. Ultrasound Spine Examination, CUSA 2018, 2 December 2018, AIIMS, New Delhi

Souvik Maitra
1. Non-invasive ventilation and high flow nasal oxygen, CME Mechanical Ventilation, 22 July 2018, AIIMS, New Delhi
2. Paediatric airway anatomy, 9th National Airway Conference, 7 September 2018, Kolkata
3. Fibreoptic bronchoscopy in pediatrics: Troubleshooting, 9th National Airway Conference, 7 September 2018, Kolkata
4. Imaging in anaesthesia and intensive care (Workshop), 66th Indian Society of Anaesthesiologists’ National Conference, 24 November 2018, Agra
5. Mitral stenosis in pregnancy: Anaesthetic consideration, 7th SGPGI Post Graduate Anaesthesiology Refresher Course, 1 March 2019, SGPGI, Lucknow
6. Interpretation arterial blood gas, Update on Fluid, Electrolyte and Acid-base Disorders, 17 March 2019, AIIMS, New Delhi

Kulbhushan Saini
2. Anaesthesia concern for single ventricle Physiology, Cardiac Anaesthesiology, Postgraduate Assembly 2018, 28 October 2018, AIIMS, New Delhi

Nishant Patel
1. Obesity and Anesthetic Challenges, ISACON UK 2018, 14 October 2018, AIIMS, Rishikesh

Akhil Singh
1. Ultrasound basics, POCUS 2019, 16 February 2019, Patna
2. Ultrasound for vascular access, POCUS 2019, 17 February 2019, Patna

Manpreet Kaur
1. Anesthetic implications of a syndromic child, AIIMS Anaesthesiology Postgraduate Assembly 2018, 19 October 2018, AIIMS, New Delhi
2. FAST, POCUS workshop, 10th Annual Conference of Indian Association of Paediatric Anaesthesiologists, 8 February 2019, JPNA Trauma Centre, AIIMS, New Delhi

Rakesh Kumar
1. Interpretation of ventilatory graphic, CME Mechanical Ventilation, 22 July 2018, AIIMS, New Delhi
2. Acute kidney injury and Interpretation of Blood Gas, AIIMS PG Assembly, 21 October 2018, AIIMS, New Delhi
3. Lung isolation and one lung ventilation technique, 7th ISACON Uttarakhand, 14 October 2018, AIIMS, Rishikesh
4. Interpretation arterial blood gas, Update on Fluid, Electrolyte and Acid-base Disorders, 17 March 2019, AIIMS, New Delhi
5. Paediatric simulation, IAPACON, 8 February 2019, AIIMS, New Delhi

Thilaka Muthiah
1. Low flow anaesthesia-lesser the better, CHETANCON 2018, 1 December 2018, Kelambakkam, Tamil Nadu
2. Prophylactic infusion of phenylephrine versus norepinephrine for the prevention of post spinal hypotension in parturients undergoing elective cesarean section: A randomized controlled trial, ISA Delhi Chapter, 26 February 2019, AIIMS, New Delhi
3. Anaesthetic considerations for flap surgery, CCR by Plastic Surgery Department, 23 October 2018, AIIMS, New Delhi
Arshad Ayub
2. Infraclavicular and Axillary Blocks, ICPM Jodhpur 2018, 27-31 October 2018, AIIMS, Jodhpur
3. USG Guided Regional Anaesthesia Blocks, CUSA, AIIMS 2018, 1 and 2 December 2018, AIIMS, New Delhi
4. USG Guided Regional Anaesthesia in Paediatrics, IAPA AIIMS 2019, 8 February 2019, AIIMS, New Delhi

Kanil Ranjith Kumar
1. Cadaveric workshop: Ultrasound guided regional anaesthesia, Comprehensive Symposium on Ultrasound for Anesthesiologists (CUSA), 1 and 2 December 2018, AIIMS, New Delhi
2. Workshop: Ultrasound Guided Pediatric Nerve Blocks, 11th Annual Conference of India Association of PaediatricAnaesthesiologist (IAPA), 8 February 2019, AIIMS, New Delhi

Oral papers/posters presented
2. Anand RK, Singh Y, Baidya DK, Maitra S, Stutigupta, Singh AK, Assessment of Role of Inferior Vena Cava Collapsibility Index (IVCCI) in pregnant patient to predict postoperative hypotension during LSCS, Turkish Society of Critical Care, 22-25 November 2018, Antalya, Turkey
4. Chawhan G, Baidya DK, Maitra S, Subramaniam R, Trikha A, Batra RK, et al., Efficacy of Left Ventricular Outflow Tract Velocity Time Integral (LVOT VTI) and carotid artery VTI as predictor of volume responsiveness to Passive Leg Raising (PLR) in sepsis and septic shock patients by correlation with Echocardiography guided stroke volume change (delta SV%) to PLR, SG-ANZICS (Singapore—Australia and New Zealand Intensive Care Society), 10 May 2018, Singapore
5. Darlong V, Baidya D, Pandey RK, Sinha R, Punj J, Effect of varying time interval in between fentanyl and propofol on induction dose of propofol, Randomized controlled trial, 72nd Postgraduate Assembly, 7-11 December 2018, New York, USA
6. Depal VNK, Patel N, Case report on Robinow Syndrome, 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologists (IAPA 2019), 8-10 February 2019, AIIMS, New Delhi
7. Does administration of 5% dextrose reduce PONV in Laparoscopic Cholecystectomy? 72nd Post Graduate Assembly in Anesthesiology (PGA-72), 7-11 December 2018, New York City, USA
8. Goth A, Kaur M, Subramaniam R, Low flow vascular malformations of cervico facial area: An airway challenge, 10th Annual Conference of Indian Association of Paediatric Anaesthesiologists, 8 February 2018
10. Kayina CA, Kaur M, Airway challenge in repaired tracheo-esophageal fistula patient, 10th Annual Conference of Indian Association of Paediatric Anaesthesiologists, 8 February 2018
15. Khanna P, Singh G, Kashyap L, Batra RK, Singh A, Interim analysis of a prospective randomized controlled trial for comparison of effect on neuromuscular blockade recovery between calcium gluconate coadministered with neostigmine and neostigmine only in paediatric patients (Received Travel Grant by Korean Society of Anaesthesia), Koreanesthesia-2018, 8-10 November 2018, Seoul, Korea


23. Pranita, Kumar KR, Darlong V, Air-Q as rescue conduit for fibreoptic guided intubation in a child with Treacher Collins Syndrome, 11th Annual Conference of Indian Association of Paediatric Anaesthetists, 10 February 2019, AIIMS, New Delhi

24. Ramakumar N, Kaur M, Subramaniam R, Recurrent syncope in a child and video assisted thoracoscopic surgery, 10th Annual Conference of Indian Association of Paediatric Anaesthetists, 8 February 2019


26. Rao TN, Goswami D, Roychoudhury A, Bhutia O, Baidya DK, Trikha A, To compare the efficacy of local anaesthetic wound infiltrations in temporomandibular joint ankylosis surgery for control of postoperative pain, 17th World Congress on Pain, 14 September 2018, Boston Convention Centre, USA


30. Sarath, Kumar KR, Sinha R, Pranita, C-MAC® D-BLADE for awake oro-tracheal intubation with minimal mouth opening—A safe alternative to fibreoptic bronchoscope, AIIMS Anesthesiology PG Assembly, 18 October 2018, AIIMS, New Delhi

31. Shende DR, Ramkumar, Kashyap L, Comparison of Sub-Tenon Block, Peribulbar Block and IV Fentanyl for Peri-Operative Analgesia in Paediatric Cataract Surgery, 15th Conference of Asian Society of Paediatric Anaesthetists (15th ASPA) in conjunction with the 88th Annual Scientific Meeting of the Royal College of Anaesthetists of Thailand, 18-19 August 2018, Bangkok, Thailand


34. Singh A, Subramaniam R, Kaur M, Airway rescue in a neonate with Pierre Robin Sequence (PRS) for emergency surgery: Still a challenge, 10th Annual Conference of Indian Association of Paediatric Anaesthetists, 8 February 2019
35. Sinha R, Yadav S, Khanna P, Ray BR, Pandey RK, Punj J, Darlong V, Dexmedetomidine effect on serum cortisol in paediatric ophthalmic surgery, Post Graduate Assembly (PGA-72) conducted by New York Society of Anaesthesiologist, 7 December 2018, New York, USA

36. Yadav A, Kaur M, Anaesthetic implications of Rubinsein Taybi Syndrome, 10th Annual Conference of Indian Association of pediatric Anesthesiologists, 8 February 2019


RESEARCH

Funded projects

Ongoing

1. Comparison of ultrasound guided dorsal radial artery cannulation and conventional radial artery cannulation at the volar aspect of wrist: A randomized controlled trial, Souvik Maitra, AIIMS, 6 months, 2018-2019, Rs 4 lakhs

Completed

1. Intraoperative Lung protective ventilation in peritonitis patients undergoing emergency laparotomy: Randomized controlled trial, Dalim Kumar Baidya, AIIMS, 3 years, 2015-2018, Rs 1.8 lakhs

2. To assess the analgesic efficacy of adjuvant magnesium sulphate added with Ropivacaine over Ropivacaine alone as a continuous infiltration in total abdominal hysterectomy wounds: A randomized controlled trial, Devalina Goswami, AIIMS, 1 year, 2016-2017, Rs 5.0 lakhs

3. Assessment of IJV incompetence and its association with postoperative cognitive dysfunction in patients undergoing laparoscopic surgeries in Trendelenburg position, Akhil Kant Singh, AIIMS, 2 years, 2018-ongoing, Rs 5 lakhs

4. Serratus Anterior Plane Block in modified radical Mastectomy: A pilot study to compare the efficacy of two different techniques, Debesh Bhoi, AIIMS, 2 years, 2017-2019, Rs 1.2 lakhs

Departmental projects

Ongoing


3. A double blind randomized controlled trial—Effect of intravenous dexamethasone on the onset time and recovery profiles of atracurium in children

4. A randomised control trial comparing the effects of lignocaine and dexmedetomidine on the incidence of postoperative cognitive decline in elderly: A pilot study

5. A study to find minimum effective volume of 0.5% ropivacaine for ultrasound guided costoclavicular block

6. Air Q ILA as a conduit for orotracheal intubation in children: A comparison between supine and lateral position

7. Anaesthetic implications of laparoscopic nephrectomy through transperitoneal and retroperitoneoscopic approach—A prospective observational study

8. Analgesic efficacy and LA sparing effect of intrathecal morphine as adjunct for labor analgesia—A double blinded randomized controlled trial

9. Analgesic efficacy and safety of Clonidine as an additive to 0.25% Ropivacaine in Stellate Ganglion Block for the treatment of Complex Regional Pain Syndrome, A prospective randomized single blind study

10. Analgesic efficacy of ultrasound guided erector spinae block versus intrathecal morphine in patients undergoing percutaneous nephrolithotomy surgery: A prospective randomized comparative pilot study

11. Assessment of efficacy of ultrasound guided corner pocket versus two aliquots injection techniques for supraclavicular block in upper limb orthopaedic surgeries: A prospective, randomized study

12. Assessment of Inferior Vena Cava Collapsibility Index (IVCCI) and variation of Carotid Artery Peak Velocity (CAPV) as predictor of post-spinal hypotension

13. Association between pulmonary function tests and difficult airway in morbidly obese patients

14. Association of intraoperative blood glucose variability with postoperative outcomes in emergency laparotomy

15. Association of malnutrition in children with inhalational anesthetic requirement and awakening during day care procedures

16. Bilateral Quadratus Lumborum Block vs bilateral transversus abdominis plane block for postoperative pain relief in TAPP laparoscopic hernia surgery: A randomized control trial
17. Bilateral ultrasound guided erector spinae plane block for postoperative pain relief in traumatic spine surgery: A randomised controlled trial
18. Carotid artery corrected flow time and respiratory variations of peak blood flow velocity for prediction of hypotension after induction of general anaesthesia in adult patients undergoing emergency laparotomy for peritonitis: A prospective observational study
19. Comparative efficacy and safety of I-gel and Air Q SP during general anaesthesia in infants: A prospective randomized trial
20. Comparative evaluation of efficacy of ultrasound guided supra-inguinal fascia iliaca block with infra-inguinal technique in preoperative positioning for central neuraxial block in patients with hip fracture
21. Comparative sonoanatomy of “medial-oblique” probe position with classic “short axis” probe position for ultrasound guided iliohypogastric nerve block: A non-inferiority study
22. Comparison of Three Dimensional (3D) endovision system versus Ultra-High Definition (HD) (4K) endovision system in minimally invasive surgical procedures, An open labeled randomized study
23. Comparison between opioid based anaesthesia technique and opioid free anaesthesia technique in patients undergoing laparotomy for gynaecological malignancy: A randomized controlled trial
24. Comparison of analgesic efficacy and safety of erector spinae plane block versus local infiltration in video assisted thoracoscopic surgery in adult patients
25. Comparison of analgesic efficacy of levobupivacaine and ropivacaine in labour analgesia by dural puncture epidural technique
26. Comparison of analgesic efficacy of ultrasound guided Quadratus Lumborum Block (QL) versus Erector Spinae Plane (ESP) Block in children undergoing open pyeloplasty—A randomized double blinded controlled trial
27. Comparison of clinical efficacy of intrathecal 0.75% isobaric ropivacaine with fentanyl versus clonidine as adjuvant in caesareean section: A prospective randomised controlled trial
28. Comparison of fixed versus titrated PEEP in patient undergoing laparoscopic surgery in lateral position
29. Comparison of Glide scope and C-Mac Video laryngoscope for intubation in pediatric patients: A prospective, comparative and randomized study
30. Comparison of lactate clearance and neutrophil lymphocyte ratio as predictor of mortality in patients with sepsis
31. Comparison of low-fresh gas flow technique to standard technique of sevoflurane induction in children
32. Comparison of opioid based anaesthesia technique and opioid free anaesthesia technique in patients undergoing laparotomy for gynaecological malignancy: Randomized controlled trial
33. Comparison of paravertebral block and Caudal epidural block undergoing renal surgery in pediatric patients
34. Comparison of percutaneous radiofrequency thermocoagulation and percutaneous microballoon compression of gasserian ganglion in treatment of trigeminal neuralgia—A randomized controlled trial
35. Comparison of safety and efficacy of Air SP vs. Conventional Air-Q intubating laryngeal airway in children: A prospective, randomized comparative study
36. Comparison of serum nucleosomes and Tissue Inhibitor of Metalloproteinase1 (TIMP1) in predicting mortality in adult critically ill patients in sepsis
37. Comparison of the analgesic efficacy of quadratus lumborum block versus transverse abdominis plane block for renal transplant: Randomized controlled trial
38. Comparison of time to intubate and intubation conditions with CMAC Miller blade size 1 and CMAC Macintosh blade size 2 in pediatric patients—A prospective randomized controlled study
39. Comparison of two anaesthetic techniques in children undergoing vitreo-retinal surgery: Inhalational vs TCI (Target controlled infusion)—A randomized pilot clinical trial
40. Comparison of ultrasound guided dorsal radial artery cannulation and conventional radial artery cannulation at the volar aspect of wrist: A randomized controlled trial
41. Comparison of ultrasound guided femoro-sciatic nerve block versus epidural analgesia for post-operative analgesia following excision of knee tumours—A randomized control study
42. Comparison of ultrasound guided gastric emptying between breast feed and formula cow’s milk fed below 6 months old child, An observational study
43. Competency of novice users in performing endotracheal intubation using C-Mac video laryngoscope or Macintosh laryngoscope after manikin based skill learning as assessed on a high fidelity simulation system: A prospective randomized study
44. Correlation of oxygenation index and oxygen saturation index in patients undergoing emergency laparotomy under general anaesthesia: A prospective observational study
45. Diagnostic ultrasound guided medial branch block of dorsal ramus in facet arthropathy: Technical evaluation and validation by fluoroscopy
46. Dura to spinal cord distance at different vertebral levels in children and its implications on epidural and spinal anesthesia and analgesia in Indian Population: A retrospective CT scan-based study
47. Early administration of Vitamin D to reduce ICU length of stay in critically ill sepsis patients: Randomized controlled trial
48. Effect of addition of dexamethasone to ropivacaine for extra oral mandibular block in patients undergoing mandibular surgeries under general anaesthesia
49. Effect of change in body weight on clinical outcomes in critically ill patients
50. Effect of dexamethasone on post operative cognitive decline in elderly population: A randomized controlled triple blind trial
51. Effect of dexmedetomidine on emergence delirium and recovery parameters after Desflurane or Sevoflurane Anaesthesia in children: A prospective observational randomized study
52. Effect of different dose regimens of Tranexamic acid in pelviacetabular fracture surgery: Randomized clinical trial
53. Effect of entropy guided low flow desflurane anaesthesia on laryngeal mask airway removal time in children undergoing ophthalmic surgery—A prospective, randomized, comparative study
54. Effect of high protein normo-caloric nutrition on skeletal muscle wasting in critically ill mechanical ventilated patients: A randomized double-blind
55. Effect of patient positions on post induction hypotension caused by Propofol—A randomized comparative trial
56. Effect of positive end expiratory pressure on atelectasis in patients undergoing major upper abdominal surgery under general anesthesia—A lung ultrasonography study
57. Effect of wrist angulations on ease of radial artery cannulation in pediatric population: Ultrasound-guided anatomical assessment
58. Effectiveness of enteral ivabradine for heart rate control in septic shock—A randomized controlled trial
59. Effectiveness of mechanical ventilation simulator in assessment and management of patient ventilator interactions in trainees
60. Effectiveness of Retrolaminar Block as a perioperative analgesia in lumbosacral spine surgeries: A randomized controlled pilot study
61. Effects of regional anesthesia on perioperative inflammatory cytokines alteration and clinical complications
62. Efficacy of decremental PEEP trial on postoperative oxygenation status in adult patients undergoing emergency laparotomy: A pilot randomized controlled trial
63. Efficacy of erector spinae plane block and quadrates lumborum block for perioperative analgesia in patients scheduled for renal transplantation—A single blinded randomized controlled study
64. Efficacy of hetastarch with ropivacaine in prolongation of duration of ilioinguinal and iliohypogastric nerve blocks in paediatric inguinal hernia repair—A preliminary study
65. Estimation of minimum effective volume of local anaesthetic [0.75% Ropivacaine] in target intra cluster approach of ultrasound guided supraclavicular block: A prospective, dose estimation study
66. Evaluation and comparison of 28 day mortality prediction by using serial values of NT-Pro BNP and Troponin I in patients with ARDS
67. Evaluation of the effects of a preoperative carbohydrate drink on postoperative vomiting in paediatric strabismus surgery: A randomized controlled observer blinded trial
68. Feasibility of anterior temporalis muscle ultrasound as a method to assess muscle wasting in ICU
69. Fentanyl versus Dexmedetomidine infusion in head and neck free flap surgery for comparison of hemodynamics and anesthetic requirements
70. Focused Airway Sonography (FAS) for evaluation of laryngeal mask airway placement: An observational study
71. Gastric residual volume measured by ultrasound to correlate with feed intolerance in ICU patients—An observational study
72. Hemodynamic profile in the perioperative period in patients undergoing pheochromocytoma and paraganglioma surgery with and without low dose diltiazem infusion
73. Impact of audio cues assisted learning on performance of endotracheal intubation on real patients by novice anaesthesiologists: A hi-fidelity simulator based double blinded study
74. Incidence of post operative cognitive decline in elderly patients undergoing open surgery under general anesthesia using Isoflurane or Desflurane: A prospective observational study
75. Intra operative monitoring of cerebral oxygen saturation using Near Infra Red Spectroscopy (NIRS) and assessment of risk factors for low cerebral oxygen saturation in preterm and very preterm infants with retinopathy of prematurity during Vitreo retinal surgeries: An observational prospective study
76. Intraoperative glycemic status of non-diabetic patients undergoing elective major abdominal surgery: A multi-centric prospective observational study
77. Liberal versus restrictive fluid management in Ambulatory Laparoscopic gynaecological surgeries: A randomized controlled trial
78. Micro-albuminuria as a marker for predicting patient outcome in critically ill sepsis patient
79. Perioperative blood glucose variability in non-diabetic patients with peritonitis undergoing emergency laparotomy: A prospective observational study
80. Prediction of difficult laryngoscopy and oro tracheal intubation using lateral neck X-ray: A prospective observational double blind study
81. Prediction of intensive care unit admission and mortality in acute febrile illness: A prospective observational study
82. Preoperative intravascular volume status measured by inferior vena cava collapsibility index in patients with pheochromocytoma/paraganglioma undergoing surgical tumour removal—A prospective cohort study
83. Prognostic significance of preoperative blood lactate and lactate clearance in patients undergoing emergency laparotomy for perforation peritonitis: A prospective observational study
84. Prognostic significance of red blood cell transfusion trigger in critically ill patients with sepsis and septic shock: Prospective observational study
85. Role of spot urine sodium in furosemide stress test in volume overloaded critically ill patients with acute kidney injury—A prospective study
86. Safety and efficacy of low dose intrathecal anesthesia in outpatient tubal ligation
87. Safety, economic and environmental impact of desflurane in minimal flow anaesthesia (0.5 lit/Min) with or without nitrous oxide, compared to isoflurane-air-oxygen used with low flow (1 L/min)—A randomized open labelled single blinded study
88. Serum Procalcitonin, Interleukin-6 and sTREM-1 as diagnostic and prognostic markers in sepsis in Intensive Care Unit
89. The effect of levosimendan infusion on diaphragm contractility assessed by ultrasonography: A single centre randomized placebo-controlled trial
90. The effect of ultrasound guided quadratus lumborum block on postoperative analgesia and neuroendocrine stress response in paediatric patients undergoing elective open pyeloplasty. A randomized controlled trial
91. To assess the role of “carotid artery corrected flow time, carotid artery velocity time integral and carotid artery peak velocity variation” in prediction of post spinal anaesthesia hypotension in spontaneously breathing patients
92. To compare analgesic efficacy and safety of ultrasound guided bilateral intermediate cervical plexus block with bilateral superficial cervical plexus block in patients undergoing thyroid surgeries under general anaesthesia
93. To determine the association between altered cerebral blood flow in the frontal cortex during Sevoflurane anesthesia and incidence of postoperative emergence delirium in children: An f NIRS based observational study
94. To evaluate the effects of a preoperative carbohydrate drink on postoperative vomiting in paediatric strabismus surgery: A randomized controlled observer blinded trial
95. To evaluate the safety and efficacy of different doses of clonidine in Pectoral Nerve Blocks (PECS I&II) for pain relief in different oncological breast surgeries: A prospective, comparative, randomized controlled trial
96. To study the outcomes of Immediate Sequential Bilateral Vitreo Retinal Surgery (ISBV$S$) in advanced ROP
97. Ultrasonographic assessment of brachial artery reactivity as predictor of adverse outcome in patients undergoing emergency laparotomy for perforation peritonitis: Prospective observational study
98. Ultrasonographic assessment of tonsillar volume in children undergoing tonsillectomy, A predictor of post-operative morbidity
99. Ultrasound assessment of airway for prediction of difficult laryngoscopy in obese patient, Observational pilot study
100. Ultrasound assessment of gastric emptying of clear fluids with different energy content in children: A crossover pilot study
101. Ultrasound guided continuous erector spinae plane block in major hepatobiliary and lienorenal shunt surgery: A retrospective study
102. Ultrasound Guided Erector Spinae Plane Block for Postoperative Analgesia in Patients undergoing Percutaneous Nephrolithotomy—A double-blinded, randomized controlled trial
104. Ultrasound guided regional blocks for breast surgery; A comparison of Erector Spinae Plane (ESP), Thoracic Paravertebral (TPVB) and Serratus Anterior Plane (SAP) Blocks in randomized controlled pilot study
105. Ultrasound guided suprainguinal fascia iliaca block for analgesia in acetabular fracture repair
106. Urine albumin creatinine ratio as a marker for predicting acute kidney injury and patient outcome in critically ill sepsis patients—A prospective observational study

**Completed**

1. A comparison of efficacy of prophylactic infusion of phenylephrine versus norepinephrine for the prevention of post spinal hypotension in parturients undergoing elective caesarean section—A randomized controlled trial
2. Accuracy of predictive equations in guiding Tracheal intubation depth in children: A prospective observational study
3. Anesthetic management for ophthalmic surgical procedures in children with congenital rubella syndrome: A retrospective analysis
4. Assessment of Role of Inferior Vena Cava Collapsibility Index (IVCCI) in pregnant patient to predict postoperative hypotension during LSCS
5. Association between pulmonary function tests and difficult airway in morbidly obese patients
6. Association of malnutrition with sevoflurane requirement and awakening during day care procedures
7. Bilateral Erector Spinae Plane Block for acute post-surgical pain in adult cardiac surgical patients: A randomized controlled pilot study
8. Carotid artery corrected flow time and respiratory variations of peak blood flow velocity for prediction of hypotension after induction of general anaesthesia in adult patients undergoing elective surgery: A prospective observational study
9. Clinical outcome, microbiological spectrum and antibiotic susceptibility of clinical isolates from adult intensive care unit in a tertiary care hospital in India
10. Comparison between Ultrasound guided Serratus anterior Plane Block, PECS Block and Intercostal Nerve Block for Post-operative Thoracotomy Pain in Paediatric Cardiac Surgical Patients
11. Comparison of intraocular pressure change with facemask vs laryngeal mask airway in anaesthetised children
12. Comparison of opioid based and opioid free TIVA in laparoscopic gynaecological surgery: A randomized control trial
13. Comparison of time to intubate and intubation conditions with CMAC Miller blade size 1 and CMAC Macintosh blade size 2 in paediatric patients—A prospective randomized controlled study
14. Correlation between duration of preoperative fasting and emergence delirium in pediatric patient undergoing ophthalmic examination under anesthesia as day care procedure—An observational study
15. Determination of efficacy of dexamethasone in postoperative analgesia as an adjunct to ropivacaine in extra-oral mandibular nerve block in patients of maxillofacial surgery
16. Diagnostic performance of Lung Ultrasound in Ventilator Associated Pneumonia
17. Double blind randomized controlled trial for comparison of effect on neuromuscular blockade recovery between calcium gluconate co administered with neostigmine and neostigmine only in paediatric patients
18. Effect of addition of dexamethasone to ropivacaine for extraoral mandibular nerve block in patients undergoing mandibular surgeries under general anaesthesia
19. Effect of dexmedetomidine on emergence delirium and recovery parameters after desflurane or sevoflurane anesthesia in children: A prospective double randomized study
20. Effect of dexmedetomidine on serum cortisol level and perioperative haemodynamics in children undergoing elective ophthalmic surgery—A prospective, randomized, comparative study
21. Effect of low dose ketamine on inflammatory markers and on perioperative analgesia in patients undergoing laparoscopic hernia surgery—A prospective, randomized, comparative study
22. Effectiveness of enteral ivabradine for heart rate control in septic shock—A randomized controlled trial
23. Effects of single dose intravenous dexmedetomidine for the supplementation of caudal analgesia in children—A prospective randomized comparative study
24. Efficacy of decremental PEEP trial on postoperative oxygenation status in adult patients undergoing emergency laparotomy: A pilot randomized controlled trial
25. Efficacy of Left Ventricular Outflow Tract Velocity Time Integral (LVOT VTI) and carotid artery VTI as predictor of volume responsiveness to Passive Leg Raising (PLR) in sepsis and septic shock patients by correlation with Echocardiography guided stroke volume change (delta SV%) to PLR
26. End expiratory occlusion test and mini fluid challenge for predicting fluid responsiveness in acute circulatory failure
27. Epidemiology and prognostic utility of cellular components of hematological system in sepsis
28. Evaluation of diaphragmatic muscle mass in patients receiving pressure regulated volume controlled ventilation and synchronized intermittent mandatory ventilation for acute respiratory failure: A randomized controlled trial
29. Evaluation of the Role of Ultrasound Biomicroscopy in Retinoblastoma
30. Impact of preoperative anxiety on propofol induced hypotension in female patients of elective surgery under general anesthesia
31. Impact of preoperative anxiety on propofol induced hypotension in children undergoing elective surgery under general anesthesia: A prospective observational study
32. Incidence of post operative cognitive decline in elderly patients undergoing open surgery under general anaesthesia using Isoflurane or Desflurane: A prospective observational study
33. Integrated ultrasound protocol in predicting weaning success and extubation failure: A prospective observational study
34. Knee-chest position and Subarachnoid Block Onset times in Obstetric parturient: A RCT
35. Lung ultrasound for diagnosis of Ventilator associated pneumonia in critically ill
36. Palpation method versus ultrasound guided Dorsalis Pedis Artery (DPA) cannulation in adult patients: A randomized controlled trial
37. Perioperative analgesic efficacy of continuous quadratus lumborum block or continuous transversus abdominis plane block in patients undergoing renal transplant surgery: A randomized double-blind controlled study
38. Perioperative outcome of patients undergoing major pelvic surgeries in a tertiary health center in India: A retrospective analysis
39. Postoperative analgesia for open midline incisions in gynaecological oncology surgery: Ultrasound guided bilateral rectus sheath block with multimodal analgesia versus intrathecal morphine
40. Success rate of distal radial artery cannulation in adult patients: A retrospective cohort study
41. Temporal evolution of the PCVCO2-PaCO2 / CaO2-CcvO2 ratio versus serum lactate during resuscitation from septic shock
42. The effect of ultrasound guided quadratus lumborum block on postoperative analgesia and neuroendocrine stress response in pediatric patients undergoing elective open pyeloplasty: A randomized control trial
43. To assess the efficacy of local anesthetic wound infiltration in temporomandibular joint ankylosis surgery for control of post operative pain: Randomized controlled trial
44. To compare postoperative analgesia between ultrasound guided continuous Quadratus lumborum block with ultrasound guided Psoas compartment block in patients undergoing total hip arthroplasty under general anaesthesia
45. To determine the optimal length for central venous catheter via axillary vein cannulation
46. To determine whether implementation of a new ICU delirium prevention bundle will reduce the incidence of delirium compared to standard of care protocol in mechanically ventilated patients
47. To study the efficacy of clonidine as an adjuvant to ropivacaine in ultrasound guided transversus abdominis plane block in adult renal transplant recipients—A double blinded randomized controlled trial
48. To study the efficacy of serratus anterior plane block in patients undergoing trunk based flap surgeries—A pilot study
49. Transforaminal epidural injection of local anesthetic and dorsal root ganglion pulsed radiofrequency treatment in lumbosacral radicular pain—A randomized, triple-blind, active-control trial
50. Ultrasound assessment of airway for prediction of difficult laryngoscopy in obese patients: A prospective observational study
51. Ultrasound assessment of gastric emptying of clear fluids with different energy content in children: A crossover pilot study

Collaborative projects

**Ongoing**

1. Incidence and risk factors of back pain after cesarean section: A prospective observational study, Gynaecology and Obstetrics
2. A randomized controlled trial to compare the safety and outcome of trans-oral vestibular and axillo-breast approach for endoscopic hemithyroidectomy in patients with benign thyroid swellings, Surgical Disciplines
3. A study of offset Analgesia in Trigeminal Neuralgia, Physiology
4. Effect of integrated Yoga on ART outcomes and Psychological stress in patients undergoing In-Vitro-Fertilization (IVF) cycles: A prospective randomized controlled trial, Obstetrics and gynecology, Psychiatry, CIMR
5. To study the causes/reasons of cancellation of scheduled patients for elective surgery, Surgery
6. Assessment of vaginal vault infiltration by Bupivacaine for postoperative pain after total laparoscopic hysterectomy: A randomized controlled trial, Obstetrics and Gynaecology
7. Improving pain management following laparoscopic surgery: A quality improvement study, General Surgery
8. A prospective study to evaluate improvement in pharyngeal airway volume and lengthening of mandible in simultaneous release of ankylosis and mandibular distraction, Maxillofacial Surgery

**Completed**

1. A study to assess the effectiveness of a planned simulation teaching on the knowledge and skill of nurses working in Critical Care Unit of AIIMS, College of Nursing
2. Evaluation of a single pre-operative preemptive dose of Etoricoxib for postoperative pain relief in dental surgeries under general anaesthesia: A randomized, prospective double blinded placebo controlled trial, Maxillo-Facial Surgery
3. Role of Liposuction Combined with Subcutaneous Mastectomy in Gynecomastia, Plastic, Reconstructive and Burns Surgery
4. A study of conditioned pain modulation in trigeminal neuralgia patients, Physiology
5. Randomized controlled trial to compare the length of stay, perioperative outcomes and complications in patients undergoing radical cystectomy with and without the Enhanced Recovery After Surgery (ERAS) protocol in a tertiary care centre in India, Urology
6. Proteomics of CSF for the identification of protein signatures in the dopamine dictated states of schizophrenia and Parkinson’s Disease, Biophysics

**PUBLICATIONS**

| Journals: 59 | Abstracts: 2 | Chapters in books: 10 | Books: 3 |

**PATIENT CARE**

Anaesthesia services were provided for elective and emergency surgeries. Apart from this, services were also provided at many peripheral areas including Endoscopy, Radiology, MECT, etc. The detailed list of number of patients handled is as follows:

**Pain Clinic**

<table>
<thead>
<tr>
<th>New Patients</th>
<th>Old Patients</th>
</tr>
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<tbody>
<tr>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>468</td>
<td>497</td>
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</table>

**Specialties**

<table>
<thead>
<tr>
<th>Specialty</th>
<th>No of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>GI Surgery</td>
<td>412</td>
</tr>
<tr>
<td>Surgery</td>
<td>3,128</td>
</tr>
<tr>
<td>Dental Surgery (CDER)</td>
<td>506</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>309</td>
</tr>
<tr>
<td>Urology</td>
<td>1471</td>
</tr>
<tr>
<td>ENT</td>
<td>1162</td>
</tr>
<tr>
<td>Gynecology</td>
<td>1349</td>
</tr>
<tr>
<td>Pediatric Surgery</td>
<td>1528</td>
</tr>
<tr>
<td>Orthopedics</td>
<td>4688</td>
</tr>
<tr>
<td>Maternity OT</td>
<td>2923</td>
</tr>
<tr>
<td>-------------</td>
<td>------</td>
</tr>
<tr>
<td>IVF OT</td>
<td>602</td>
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<table>
<thead>
<tr>
<th>Ophthalmic</th>
<th>Routine+EUA</th>
<th>Emergency</th>
<th>RPC USG</th>
<th>MAC</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>5720</td>
<td>1667</td>
<td>2990</td>
<td>485</td>
<td>10862</td>
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<table>
<thead>
<tr>
<th>Emergency</th>
<th>Cases</th>
<th>Calls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4400</td>
<td>1699</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>ICU</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>736</td>
</tr>
</tbody>
</table>

| | Carried forward by last month | 88 |
| | New Admission | 648 |
| | Discharged | 517 |
| | Expired | 127 |

<table>
<thead>
<tr>
<th>Peripheral Services</th>
<th>MRI</th>
<th>MECT</th>
<th>CT SCAN</th>
<th>Other radiological services (DSA, RFA, Lithotripsy)</th>
<th>GI Endoscopy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>424</td>
<td>696</td>
<td>837</td>
<td>271</td>
<td>1129</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pain OT</th>
<th>685</th>
</tr>
</thead>
</table>

### AWARDS, HONOURS AND SIGNIFICANT EVENTS

#### Departmental Achievements

Departmental team consisting of residents received the first and second prize in Quiz held as part of 11th IAPA Conference. Dr Ranjitha, Junior resident received 1st prize in the E-poster category in 11th IAPA Conference. Dr Lipika, Junior resident received ICMR Travel Grant to attend 12-15 September 2018, ESRA, Ireland; presented her study in the best free paper category. Dr Alka, Senior resident received first prize in Senior resident category in the First AIIMS Annual Research Day, March 2018. The department received multiple awards in the “AIIMS GOT Talent” competition. Drs Abhishek, Christopher and Sayan received the 1st prize in Instrumental Music Category. The departmental representation were among the top three performers in Group Music and Group Dance in the “AIIMS GOT Talent” competition. Dr Abhishek was the finalist in the Solo Music category.

#### Professor Anjan Trikha
was nominated member of Academic Committee of Indian College of Anaesthesiologists; Nominated Chief Editor of Journal of Obstetric Anaesthesiologists and Critical Care.

#### Professor Maya Dehran
provided anaesthesia services in Anaesthesia Department of MSSCH Beas (Punjab) in the month of May, 2018 for 10 days during summer vacation; Provided anaesthesia services to Orthopedic Surgery patients in Sikanderpur Hospital in June for a week during summer vacation 4-9 June 2018; Provided General OPD services in Bhatti Dispensary in Radha Soami Satsang, Delhi Bhatti Centre on all Sundays except on my weekend duty in AIIMS; Provided OPD services and resuscitation services for the emergencies in Bhatti Centre in Delhi Radha Soami Satsang for 13 days during major public gathering of approximately 6-7 lakhs; Invited as an expert member in the selection board for the interview of Assistant and Associate Professor in ESIC Medical College and Hospital, Faridabad, Haryana.

#### Professor Ganga Prasad
was member of Specification Committee of Anaesthesia Equipments for Post Graduate Institute of Medical Education and Research in New Delhi and Dr Ram Manohar Lohia Hospital, New Delhi; Member of Bureau of Indian Standard (BIS) for Anaesthesia Equipments, New Delhi; Member of Committee for Specification of Anaesthesia Equipments in Government e-marketing (GeM); Drafted and initiated BSc (OT technology) course at AIIMS; Teaching Subject expert for selection of Assistant Professor interview of North MCD, New Delhi; Judge for e-poster competition in RSACPCON 2018, Jaipur on 7 and 8 April 2018; Judge for e-poster competition in IAPA 2019, New Delhi on 9 February 2019; Received Commendation Prize for best exhibit in 63rd Foundation Day Exhibition of AIIMS as central workshop incharge.
Professor Vimi Rewari presented poster at the 9th International Baltic Congress of Anaesthesiology, Intensive Care and Pain Management held from 25-27 October 2018 in Vilnius, Lithuania—Awarded the Best Poster in the “Perioperative” category; was also selected for oral presentation and was awarded the best Oral Presentation; Chaired a session comprising of three lectures on “Trauma Anaesthesia” in National Conference of Research Society of Anaesthesiology Clinical Pharmacology held at Jaipur from 6 to 8 April 2018; Chaired a Pro-Con session on “Albumin has no place in liver transplant recipient surgery” in 4th International Liver Symposium” held from 6-8 April 2018, Gurugram, Delhi NCR, India; Chaired the Oral Paper Session in 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologists (IAPA 2019) held at AIIMS, New Delhi, on 8-10 February 2019; Chaired a Pro-Con session on “TEE should be used routinely in liver transplant surgery” in Apollo LTHPS Conclave 2019 held on 30-31 March 2019 at Gurugram, Delhi NCR, India; Associate Editor, Monitoring New Delhi, on 8-10 February 2019; Chaired a Pro-Con session on “Albumin has no place in liver transplant recipient surgery” at 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologists (IAPA 2019) held at AIIMS, New Delhi.

Professor Ravinder K Pandey was Chief Co-ordinator of Workshop on Ultrasound on Regional Anaesthesia Workshop on Ultrasound Guided Peripheral Nerve Blocks and Difficult Airway Management, 4-7 October 2018, Male, Maldives; Chief Co-ordinator of Workshop on Difficult Airway Management; Workshop on Ultrasound Guided Peripheral Nerve Blocks and Difficult Airway Management, 4-7 October 2018, Department of Anaesthesiology, IGM Hospital, Male, Maldives; Chief Co-ordinator of Ultrasound Directed Hands On Workshop on Peripheral Nerve Blocks, Annual Academic Sessions “Achieving clinical excellence in Pain Medicine in Sri Lanka”, 17-19 October 2018, Conference Hall Government Hospital, Jaffna, Sri Lanka.

Professor Rashmi Ramachandran was winner of the second prize in the Simulation Hackathon, held at AIIMS, Delhi as part of SimulS4 Conference on 3 March 2019; Awarded Level-3 Certified Simulation Trainer at SimulS4, by PEDISTARS (Paediatric Simulation Training and Research Society) India; Winner of second prize, SET facility, poster at Institute Day; Member of Standing National Committee on Medicines (SNCM), sub-committee on hygiene and other health care products.

Dr Dalim Kumar Baidya was Organizing Secretary of First AIIMS Anaesthesiology Post-Graduate Assembly 2018 from 17 to 20 October 2018 at AIIMS, New Delhi; Reviewer of Journal of Clinical Anaesthesia, Journal of Anaesthesiology Clinical Pharmacology; Editorial board member of The Indian Anaesthetist’s Forum; Organizing Secretary of CME on Mechanical Ventilation on 21-22 July 2018 at AIIMS, New Delhi.

Dr Puneet Khanna received grant from Korean Society of Anaesthesia to present a paper in SEOUL Korea for 1000 USD in KOREANESTHESIA, 8-10 November 2018; Second prize for poster presentation in ASPA (Asiatic Society of Pediatric Anaesthesia) in Bangkok ASPA-2018 at Bangkok, Thailand from 17 to 20 August; Second prize for poster presentation in 9th Annual Whistler Anaesthesia Summit, 28 February-3 March 2019, Whistler BC.

Dr Debesh Bhoi was workshop faculty for the “USG in Hands of Anaesthesiologist”, RSACPCON, 6-8 April 2018, SMS, Jaipur; Invited faculty for the “Advanced Regional Anaesthesia Workshop-cum-CME (ARAW 2018)”; Advanced Regional Anaesthesia Workshop cum CME 1-2 September 2018, Healthworld Hospital, Durgapur; Workshop faculty for the US Guided Regional Anaesthesia and CVC Access, South Zone ISAICON 2018, 7 September 2018, SV Medical College, Tirupati; Workshop faculty for Ultrasound Guided Regional Anaesthesia, CUSA Comprehensive Symposium on US for Anaesthesiologists; Workshop faculty for Paediatric Regional Anaesthesia Workshop, IAPA 2019, 8-10 February 2019, AIIMS, New Delhi.

Dr Bikash Ranjan Ray received ECMO Diploma from La Pitie-Salpetriere University Paris, France; 1st prize for Poster presentation in IAPA 2019 at AIIMS, New Delhi; As co-author—Second prize for poster presentation in ASPA (Asiatic Society of Pediatric Anaesthesia) in Bangkok ASPA-2018 at Bangkok, Thailand from 17 to 20 August.

Dr Rahul Kumar Anand was Organizing Secretary of Update on Fluid Electrolyte Acid-base Disorders on March 2019.

Dr Souvik Maitra was selected as a Sentinel Reviewer, Health Research Unit, McMaster University, Canada.

Dr Manpreet Kaur was faculty in Comprehensive Symposium on Ultrasound for Anaesthesiologists (CUSA), 1-2 December 2018, AIIMS, New Delhi; Faculty in Acute Critical Care Course (Interactive and Skill Development Course, 8-9 December 2018, AIIMS, New Delhi; Second prize in Poster Presentation Category in 10th Annual Conference of Indian Association of Paediatric Anaesthesiologists; Conducted workshop: POCUS, 10th Annual Conference of Indian Association of Paediatric Anaesthesiologists, 8 February 2019, JPNA Trauma Centre, AIIMS, New Delhi.

Dr Thilaka Muthiah was faculty in the 7th Annual Conference of Society of Ultrasound Anaesthesia, 27-31 October 2018, AIIMS, Jodhpur; Faculty in the Comprehensive Symposium on Ultrasound for Anaesthesiologists (CUSA), 1-2 December 2018, AIIMS, New Delhi; Faculty in training for BLS; Faculty in Acute Critical Care Course (Interactive and Skill Development Course), 8-9 December 2018, AIIMS, New Delhi; Faculty in the Workshop on Paediatric Difficult Airway Management, 11th Annual Conference of Indian Association of Paediatric Anaesthesiologists, 8 February 2019, AIIMS, New Delhi.
HIGHLIGHTS
The Students Digital Histology Laboratory with work-stations for 150 students, the first of its kind in India has been established and inaugurated by the Director, Professor Randeep Guleria on 8 August 2018. With this, more than 100 individuals/students will be able to simultaneously view the slides at their respective workstations. The teaching Faculty will be able to simultaneously guide all the students, and he or she will also be able to address the queries raised by individual students at the same time.

Several cadaveric workshops organized by different departments of AIIMS for providing training to their faculty and residents have been facilitated by the faculty of the department.

The faculty members of the department have delivered invited lectures in the country as well as abroad. Apart from teaching, the faculty members and their students were engaged in research in various areas of gross anatomy, neurosciences, embryology and genetics and have presented their work in National and International meets and conferences. Faculty has also worked towards successful procurement of extra mural grants to fund their research interests and have also had publications in peer reviewed indexed journals.

Faculty members have served on the editorial boards of several journals, both National and International and have also served as reviewers for manuscripts of reputed journals and for project proposals of several governmental funding agencies.

Patient care services encompassing embalming facilities, diagnostic testing for various metabolic disorders and genetic tests and counseling were also provided by the department.

EDUCATION
The department has organized anatomy classes for two new courses in BSc which include BSc Dental Operating Room Assistant course (DORA) and BSc Dental Hygiene course (DH). Students from outside Delhi underwent summer training in the department in various areas like genetics and electron microscopy. Several faculty members served as adjunct faculty at Jiwaji University, Gwalior for MSc Neuroscience course.

Workshops organized
1. IBRO-APRC School, 23 October-2 November 2018, New Delhi

Facilitation by the Department of Anatomy in the conduction of workshops organized by various Departments
1. Orthopedics, 3rd AIIMS-ACSST Pelvic—Acetabulum Course, 15 April 2018, New Delhi
2. Surgical Disciplines, Hands on cadaveric workshop during AIIMS Surgical Week, 19 April 2018, New Delhi
3. Students Union AIIMS, ‘Catalyst’ Medical Exhibition for school students, 26-27 April 2019, New Delhi
5. Surgical disciplines, DNB Practical Examination, 26 and 27 October 2018, New Delhi
6. Gastrointestinal Surgery, Cadaveric Workshop, as part of the 1st National Meeting of Liver Transplantation Society of India, 18 November 2018, New Delhi
7. Orthopedics, Hands on workshop, as part of the Annual Conference of Delhi Orthopaedic Association (DOACON), 22 November 2018, New Delhi
8. Anesthesiology, Ultrasound guided regional anesthesia Workshop, 1 and 2 December 2018, New Delhi
9. Surgical disciplines, Final Practical MS Examination, 12 December 2018, New Delhi
10. Orthopedics, Cadaveric Workshop as a part of 11th AIIMS Cadaver Arthroplasty Course 2019, 17 February 2019, New Delhi
11. Pulmonary Medicine and Sleep Disorder, Pulmonary Workshop AIIMS PULMOCRIT 2019, 28 February 2019, New Delhi
12. Various laboratories of Anatomy, Twenty students of Class XI and XII of Bluebells International School, New Delhi, visited for Orientation, 17 January 2019, New Delhi

Lectures delivered

TS Roy

2. Morphological changes in the human auditory pathway with aging, International Brain Research Organization Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease, 2 November 2018, New Delhi
4. Series of 3 lectures:
   - Auditory Pathways
   - Ascending Pathways
   - Limbic System
   Neuroscience Programme for MSc Students, 25 November 2018, Gwalior

SB Ray

1. Neuro-immune modulation in aged female rat hippocampus—An experimental approach, International Brain Research Organization Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease, 21 October-4 November 2018, Delhi
2. Role of neurokinin type 1 receptor in nociception at the periphery and the spinal level in the rat, International Brain Research Organization Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease, 24 October 2018, New Delhi

Rima Dada

1. Your Health...Your Choice, 120 Induction Training Programme of IAS Officers, LBSNAA, 20 July 2018, Mussoorie
2. Yoga: Impact on mt and nuclear genome, Meeting on Yoga for Health Wellness, 24 July 2018, New Delhi
3. Genetic and environmental factors—Impact on male reproductive health, Special Invited Lecture, 26 July 2018, Delhi
5. Effect of Yoga and Meditation on reproductive health, Workshop on Maternal and Newborn Care: Issues and Challenges, 6-9 September 2018, Varanasi
7. Retinoblastoma genetics: New approaches in diagnostics, Recent Advances in Molecular Genetics, 20 September 2018, Kochi
8. Genetics of male Infertility, Recent Advances in Molecular Genetics, 20 September 2018, Kochi
12. Lifestyle and oxidative stress: Impact on male reproductive health, Genetics and Lifestyle Impact and Yoga, 21 November 2018, Kollam
15. Cellular Aging-Biological Age and Telomeres, Genetics and Lifestyle Impact and Yoga, 25 November 2018, Kollam
17. Your DNA is not your destiny...your choices are, 5th Annual Conference of Indian Society for Third Party Assisted Reproduction (INSTAR), 1-2 December 2018, Kolkata
18. Complex chronic Lifestyle Diseases, 7th International Yoga Conference, Competition and Festiva, 6 January 2019, Indore
19. Epigenetics: The genetics of free will, Lecture for teachers at Amity International School, 19 January 2019, New Delhi
22. Does Yoga have a role in autoimmune diseases and cancer, Annual Mega Event on National Yoga Week—Lecture for Yoga Teachers, 23 February 2019, New Delhi
23. Infertility—A psychosomatic disease—Need for holistic intervention, Global Conference on Reproductive Health with Focus on Occupational, Environmental and Lifestyle Factors, 24 February 2019, New Delhi
24. Mt metabolism oxidative stress and aging impact of YBLI, Fusion 2019, 25 February 2019, Bangalore
25. Nature or nurture controversy continues, International Conference on Advances in Zoological Research (ICAZR) and Workshop on Real Time PCR Aligarh, 8-9 March 2019, Aligarh
26. MDD-Disease of Civilization—Genetics and Lifestyle, National Conference on Recent Developments in Biomedical, Unani and Ayurvedic Translation Research and Darker Side of Rampant Use of Lead Based Products, 10-11 March 2019, Aligarh
27. Impact of Yoga on Complex Diseases, Meeting with visiting Delegation Deakin University, 14 March 2019, New Delhi
28. Genetics basis of disease: Does Yoga have a role genetic diseases, PGI First Yoga and Yoga Therapy Workshop, 25 March 2019, Chandigarh
29. Glaucoma and Comorbid depression—Complex diseases impact of Yoga as adjunct therapy, Seminar on Yoga for Health and Therapy, 29-31 March 2019, Haridwar

Renu Dhingra
1. The current potential and usefulness of Plastination in learning Anatomy, Plastination—An Unrevealed Art in Anatomy Hands-on Workshop, 11 August 2018, Hyderabad
2. Plastination techniques at AIIMS, New Delhi
3. Plastination—An Unrevealed Art in Anatomy Hands-on Workshop, 11 August 2018, Hyderabad
4. Principles and applications of Plastination, International Brain Research Organization Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease, 21 October-4 November 2018, New Delhi

TC Nag
2. Ultrastructural changes of the choriocapillaris with aging, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 19 July 2018, Bhubaneswar
3. Mitophagy in retinal photoreceptor cells after experimental iron overload, XXXVI Annual Meeting of Indian Academy of Neurosciences, 29 October 2018, Varanasi
4. Changes of photoreceptor cytoskeleton in aging human retina: Possible link to oxidative stress, International Brain Research Organization Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease, 9 November 2018, New Delhi
5. Pericyte degeneration, capillary death and mechanisms of choriocapillaris death in aging human choroid, 66th Annual Meeting of Anatomical Society of India (NATCON66), 13 November 2018, Rishikesh

Tony G Jacob

1. Different types of publication, CMET AIIMS, 2 May 2018, Delhi
2. Writing a research paper and publishing your research, Symposium on Promoting Research Among Dental and Medical Students, 18 May 2018, Delhi
6. The Ultrastructural Changes in the Pancreatic Acinar Cells During Inflammation and Their Significance, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 20 July 2018, Bhubaneswar
7. Development of the Central Nervous System, International Brain Research Organization Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease, 22 October 2018, New Delhi
10. Animal Models in Pancreatitis, Department of Biotechnology, 23 February 2019, New Delhi
11. Diencephalon, reticular formation, cerebellum, Neuroscience Programme for MSc Students, Jiwaji University, 27 October 2018, Gwalior

Neerja Rani

1. Correlation of cKIT expression with Ki67 index and 68Ga-DOTANOC PET/CT scan in Gastroneuroendocrine Tumors (GNETs), International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 19 July 2018, Bhubaneswar

SC Yadav

5. Use of Environmental Scanning Electron Microscopy in Medicine, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 16-17 July 2018, Bhubaneswar

Oral papers/posters presented

1. Arora P, Gupta R, Sangwan SK, Dwivedi SN, Bhatla N, Dhangra R, Sharma A, Association of Vascular Endothelial Growth Factor (VEGF) and Soluble Fms-like tyrosine kinase-1 (sFlt-1) polymorphisms and their circulating protein levels in Preeclampsia, 66th National Conference of Anatomical Society of India, 12-14 November 2018, Rishikesh (Dr Inderjit Dewan Gold Medal for best poster in Clinical Anatomy)


8. Dhawan V, Kumar M, Singh N, Dadhwal V, Dada R, Sperm transcripts and genomic integrity: Role in implantation and embryo viability in IVF cycles, American Society of Reproductive Medicine (ASRM), 6-10 October 2018, Colorado, USA (Travel grant-ICMR/CSIR/DBT/IAN/IASP/others)


11. Dhingra R, Mochan S, Bhatla N, Dwivedi SN, VEGF alleviates endoplasmic reticulum stress via PERK, IRE1 and ATF6 pathways in trophoblast cells, 66th National Conference of Anatomical Society of India, 12-14 November 2018, Rishikesh (Dr HK Chatterjee Memorial Gold medal)


31. Gupta S, Kumar R, Gautam M, Ray SB, Co-administration of cannabinoid type 1 receptor agonist attenuates the development of morphine tolerance in Rats, 17th World Congress of Pain, 12-16 September 2018, Boston, USA (Travel grant- ICMR/CSIR/DBT/IAN/IASP/others)

32. Gupta S, Singh P, Ray SB, Role of mu-opioid receptor, neuropeptide Y and the anti-opioid peptide brain-derived neurotrophic factor in the development of tolerance following chronic morphine administration in Rats, 36th Annual conference of Indian Academy of Neuroscience, 29-31 October 2018, Varanasi (Travel grant-ICMR/CSIR/DBT/IAN/IASP/others)

33. Hulmani D, Garg B, Dutta R, Mridha AR, Nag TC, Kamran F, Histopathological and electron microscopic changes in ligamentum flavum in patients with degenerative lumbar canal stenosis as compared to young patients with disc herniation, 1st AIIMS Research Day, 26 March 2019, New Delhi


36. Kaler Jhajhria S, Gautam M, Gupta S, Kumar R, Ray SB, Preemptive intrathecal administration of Neuropeptide Y attenuates postoperative pain in Rats, 17th World Congress on Pain, 12-16 September 2018, Boston, USA


42. Kaur C, Jacob TG, Nag TC, Thakar A, Bhardwaj DN, Roy TS, Age-related decline in the populations of parvalbumin, GABA and NMDAR 2B immunoreactive neurons of the human spiral ganglion: A stereological study, 36th Annual Meeting of Indian Academy of Neurosciences, 30 October 2018, Varanasi
43. Kaur C, Jacob TG, Nag TC, Thakar A, Bhardwaj D, Roy TS, Age-related human spiral ganglion neuronal loss assessed by unbiased stereology, 1st AIIMS Research Day, 26 March 2019, New Delhi

44. Kaur C, Jacob TG, Nag TC, Thakar A, Bhardwaj DN, Roy TS, Age-related human spiral ganglion neuronal loss assessed by unbiased stereology, 1st AIIMS Research Day, 26 March 2019, New Delhi

45. Kaur C, Jacob TG, Nag TC, Thakar A, Bhardwaj DN, Roy TS, Age-related changes in the populations of human spiral ganglion neurons expressing parvalbumin, gaba and nmdar 2b: A Stereological study, Annual Conference of Society for Neuroscience-2018, 3-7 November 2018, San Diego, USA

46. Kaur C, Jacob TG, Nag TC, Thakar A, Bhardwaj DN, Roy TS, Age related changes in the populations of Parvalbumin, GABA and NMDAR 2B immunoreactive neurons of the human spiral ganglion: A Stereological study, 36th Annual Meeting of Indian Academy of Neurosciences, 29-31 October 2018, Varanasi


49. Kaushik S, Tomar A, Susrutha PN, Nag TC, Arya DS, Bhatia J, Inhibition of MAPK and apoptotic pathways and attenuation of cisplatin induced nephrotoxicity via administration of pitavastatin, 1st AIIMS Research Day, 26 March 2019, New Delhi


51. Kumar R, Jacob TG, Sharma U, Jagannathan NR, Roy TS, Longitudinal MRI study of infarcted brain in transient ischemic stroke in Rats, IBRO-APRC Associate School of Neuroscience, 2018, Universiti Teknologi MARA (UiTM), Puncak Alam Campus, 23-30 September 2018, Malaysia (Second prize, oral presentation)

52. Kumar R, Jacob TG, Sharma U, Jagannathan NR, Roy TS, Changes in the Rat Brain Following Transient Ischemic Stroke—An MRI study, 48th Annual Meeting of the Society for Neurosciences 2018, 3-7 November 2018, San Diego, USA


56. Malik E, Jyotsna VP, Sharma A, Genetic screening of MEN1, AIP and GNAS1 genes in sporadic anterior pituitary adenoma cases, 1st AIIMS Research Day, 26 March 2019, New Delhi


62. Maurya M, Nag TC, Roy TS, A study of presynaptic ribbon length and endogenous neuroprotective role of BDNF and regulatory pathway in postnatal chick retina exposed to light of variable photoperiods, 48th Annual Meeting of the Society for Neurosciences 2018, 6 November 2018, San Diego

63. Maurya M, Nag TC, Kumar P, Roy TS, Iron regulatory proteins in retinal changes induced by bright light in chicks, 36th Annual Meeting of Indian Academy of Neurosciences, 30 October 2018, Varanasi
64. Maurya M, Nag TC, Kumar P, Roy TS, Wadhwa S, Involvement of iron handling proteins in bright light-induced stress in post hatch chick retina, 1st AIIMS Research Day, 26 March 2019, New Delhi

65. Mehta K, Kaur B, Pandey KK, Dhar P, Beneficial role of Resveratrol on Arsenic trioxide induced cognitive deficits, cytoarchitectural alterations and oxidative stress in adult mice hippocampus, 36th Annual Conference of Indian Academy of Neuroscience, 28-31 October 2018, Varanasi


70. Nayak M, Nag HL, Nag TC, Digge V, Ultrastructural and histological changes in tibial remnant of ruptured anterior cruciate ligament stumps: A transmission electron microscopy and immunohistochemistry based observational study, 1st AIIMS Research Day, 26 March 2019, New Delhi


72. Pal I, Jacob TG, Bhardwaj DN, Roy TS, Age-related changes in the total number of neurons and the GAD-immunoreactive neurons in human inferior colliculus: Stereological study, 48th Annual Meeting of the Society for Neurosciences 2018, 3-7 November 2018, San Diego, USA

73. Pal I, Jacob TG, Bhardwaj DN, Roy TS, Age-related changes in the parvalbumin-immunoreactive neurons in human inferior colliculus: Stereological study, 36th Annual Meeting of the Electron Microscope Society of India, 18-20 July 2018, Bhubaneswar (Third prize, Poster presentation)

74. Pal I, Jacob TG, Bhardwaj DN, Roy TS, Age-related changes in levels of GAD and neuronal population in human inferior colliculus, International Conference of Japan Neuroscience Society, 26-29 July 2018, Kobe, Japan


76. Priyam K, Sharma MK, Jacob TG, Garg PK, Roy TS, Progression of Fibrosis in Mouse Model of Experimental Chronic Pancreatitis: An ultramicroscopic study, 39th Annual Meeting of the Electron Microscope Society of India, 18-20 July 2018, Bhubaneswar (Third prize, Poster presentation)

77. Priyam K, Sharma MK, Jacob TG, Garg PK, Roy TS, Characterization of a Mouse Model of Early Chronic Pancreatitis, American Pancreatic Association Meeting, 31 October-3 November 2018, Miami, USA (Young Investigator, Travel Award)

78. Rakholaia V, Agrawal S, Jacob TG, Description of a nucleus in the human midbrain, 1st AIIMS Research Day, 26 March 2019, New Delhi (First prize, category-MBBS Students)

79. Saini S, Jacob TG, Nag TC, Bhardwaj DN, Roy TS, Maturation of neurons and astroglia in developing human cochlear nucleus, 1st AIIMS Research Day, 26 March 2019, New Delhi (Third prize, category PhD students)

80. Saini S, Jacob TG, Thakar A, Roy KK, Roy TS, Morphological development of human cochlear nucleus from early prenatal to postnatal period—A stereological study, 36th Annual Meeting of Indian Academy of Neurosciences, 29-31 October 2018, Varanasi (Lalita and Rabindranath travel award)


82. Saini S, Jacob TG, Thakar A, Roy KK, Roy TS, Morphological development of human cochlear nucleus—A stereological study, 48th Annual Meeting of the Society for Neurosciences 2018, 3-7 November 2018, San Diego, USA (Travel grant-ICMR/Csir/DBT/IAN/IASP/others)

83. Sangwan SK, Khanna N, Sharma N, Agarwal T, Sharma A, Descriptive picture on various aspects of acute Stevens-Johnson syndrome/Toxic epidermal necrolysis, 1st AIIMS Research Day, 26 March 2019, New Delhi

84. Sarwar S, Quadri JA, Singh S, Das P, Nag TC, Roy TS, Shariff A, Fluoride induces oxidative stress, neuroinflammation and apoptosis in enteric nervous system in developing Rats, 36th Annual Meeting of Indian Academy of Neurosciences, 30 October 2018, Varanasi
85. Sarwar S, Quadri JA, Singh S, Das P, Nag TC, Marakaria G, Roy TS, Shariff A, Ameliorative effects of ascorbic acid on fluoride induced enteric nervous system developmental disorders, 1st AIIMS Research Day, 26 March 2019, New Delhi

86. Sarwar S, Quadri JA, Singh S, Das P, Nag TC, Roy, TS, Shariff A, Fluoride induced ultrastructural changes in the enteric neurons, 39th Annual Meeting of Electron Microscope Society of India, 18-20 July 2018, Bhubaneswar


89. Sarwar S, Quadri JA, Singh S, Nag TC, Roy TS, Shariff A, Fluoride induces oxidative stress neuroinflammation and apoptosis in enteric nervous system in developing Rats, 36th Annual Meeting of Indian Academy of Neurosciences, 29-31 October 2018, Varanasi

90. Sarwar S, Quadri JA, Singh S, Das P, Nag TC, Roy TS, Shariff A, Fluoride induced glial cell changes in the myenteric plexus of neonatal Rats, 34th Conference of the International Society of Fluoride Research, 18-20 October 2018, Guiyang, China

91. Sarwar S, Quadri JA, Singh S, Nag TC, Roy TS, Shariff A, Chronic fluoride exposure induces cardiomyopathy: An experimental study, 34th Conference of the International Society of Fluoride Research, 18-20 October 2018, Guiyang, China (Best poster award)


95. Singh P, Gupta S, Ray SB, Inflammatory effect of Octreotide, a somatostatin analogue in Rats and its comparison with morphine, 36th Annual Meeting of Indian Academy of Neurosciences, 29-31 October 2018, Varanasi (Travel grant(ICMR/CSIR/DBT/IAN/IASP/others)


99. Tolahunase M, Chaurasia P, Sagar R, Dada R, Impact of Yoga and meditation based lifestyle intervention on Depression, Quality of Life, and Cellular Aging in Infertile Couples, ASRM 2018—74th American Society for Reproductive Medicine Scientific Congress and Expo, USA, 6-10 October 2018, Colarado, USA (Travel grant(ICMR/CSIR/DBT/IAN/IASP/others)

100. Tolahunase M, Sagar R, Kumar R, Dada R, Impact of Yoga based lifestyle intervention on Depression, Quality of Life, and Cellular Aging in Infertile Couples, 1st AIIMS Annual Research Day, 26 March 2019, New Delhi

RESEARCH

Funded projects

Ongoing

1. A translational randomized trial of yoga based lifestyle intervention for Major Depressive Disorder (MDD) management in India and analyzing biomarkers of cellular aging associated with it, Rima Dada, Ayush, 3 years, 2016-2019, Rs 30.0 lakhs

2. Age related changes in the human inferior colliculus: A morphological and neurochemical study, TS Roy, DST, 3 years, 2018-2021, Rs 43.86 lakhs
3. Age related morphological and neurochemical changes in the human inferior colliculus, TS Roy, AIIMS, 1 year, 2017-2018, Rs 4.50 lakhs
4. Analysis of Sperm DNA damage in fathers of children with non-familial childhood cancer, Rima Dada, ICMR, 3 years, 2015-2018, Rs 36.0 lakhs
5. Apoptosis and mitosis in developing human cochlear nucleus, TS Roy, ICMR-SRF, 1 year, 2017- onwards, Rs 4.56 lakhs
6. Development of Quick and Specific Detection System of EWS-FLI-1 Fusion Protein, SC Yadav, DBT, 3 years, 2019-2022, Rs 79.86 lakhs
7. DST FIST, TS Roy, DST, 5 years, 2018-2023, Rs 150 lakhs
8. Effect of angiotensin receptor modulation in rat middle cerebral artery occlusion: A morphological and biochemical study, TS Roy, DBT-JRF, 3 years, 2017-onwards, Rs 3.30 lakhs
9. Effects of lifestyle interventions and psychological stress on markers of aging, Rima Dada, ICMR, 3 years, 2017-2020, Rs 40.0 lakhs
10. Evaluation of genetic basis of congenital hereditary endothelial dystrophy …. And clinical phenotyping of mutation positive and negative cases, Arundhati Sharma, AIIMS, 2 years, 2017-2019, Rs 10.0 lakhs
11. External delivery of Cisplatin using Human Papilloma Virus (HPV 16) based nanocarriers for treatment of cervical cancer, S C Yadav, AIIMS-IIT Delhi, 2 years, 2019-2020, Rs 10.0 lakhs
12. Fluoride induce anemia during pregnancy … A pilot study, A Shariff, DST, 3 years, 2016-2019, Rs 25.0 lakhs
13. Genetic study of patients with refractory rickets and hypophosphatemia, Arundhati Sharma, ICMR, 3 years, 2015-2018, Rs 30.0 lakhs
14. Genome-wide association study of phenotypic extremes in primary angle closure glaucoma, Arundhati Sharma, DBT, 3 years, 2016-2019, Rs 54.0 lakhs
15. Magnetic nanoparticles and quantum dots coupled visual confirmation of cervical cancer cells from cytology sample: A cost effective, quick and suitable test for rural Indian setup, S C Yadav, SERB, 3 years, 2018-2021, Rs 38.68 lakhs
16. Role of Hydrogen Sulphide as a pharmacological modulator in adverse pregnancy outcomes like preeclampsia, Renu Dhingra, DST, 3 years, 2018-2021, Rs 45.0 lakhs
17. Role of micro RNA-22/specificity protein-1/cystathionine beta synthase axis in trophoblast cell invasion and their status in Preeclampsia, Renu Dhingra, ICMR-SRF, 2 years, 2018-onwards, Rs 4.56 lakhs
18. Role of synaptic plasticity at spinal level in persistent pain conditions in rats, Saroj Kaler Jhajhria, AIIMS, 2 years, 2018-2020, Rs 10.0 lakhs
19. Role of Th-17 Cells in Rheumatoid Arthritis in Indian population, A Shariff, ICMR, 4 years, 2015-2019, Rs 60.0 lakhs
20. Status of molecules regulating trophoblast migration in patients of preeclampsia and role of hydrogen sulphide in mediating migration during placentation, Renu Dhingra, ICMR-SRF, 2 years, 2018-onwards, Rs 4.56 lakhs
21. Ultrastructural and immunohistochemical analysis of human choroidal vessels with normal aging, TC Nag, ICMR, 3 years, 2015-2018, Rs 21.4 lakhs
22. Unravelling the role of novel proteins in gastroenteropancreatic and respiratory neuroendocrine tumors, Neerja Rani, DST, 3 years, 2019-2022, Rs 50.0 lakhs

Departmental projects

Ongoing

1. A study of dopaminergic neurons in the myentric plexus of ulcerative colitis patients
2. A study of genetic factors associated with recurrent spontaneous abortions
3. A study on the genetic association and correlation of Monoaminergic and GABAergic pathway gene polymorphisms with brain imaging (PET/SPECT) in Alcohol and Opioid Dependence
4. A study on the role of ADH and ALDH gene variants in Alcohol Dependence
5. A study to evaluate association of Single Nucleotide Polymorphisms and Epigenetic changes in Neurotransmitter Genes in Opioid Dependence
6. Age changes in the human inferior colliculus
7. Age changes in the human spiral ganglion
8. Age changes in the human trochlear, abducent and cochlear nerve
9. An association study of cystathionine beta synthase gene polymorphism in Preeclampsia
10. Assessment of the efficacy of nanodrug delivery system for the treatment of open angle glaucoma in animal model
11. Association of non-classical HLAG gene polymorphisms in RA and Impact of Yoga intervention
12. Autophagy and Neurogenesis in Middle Cerebral Artery Occlusion Model of Stroke in Wistar Rats
13. Characterization of a novel GHHR mutation causing Isolated Growth Hormone Deficiency
14. Detection of beacon based diagnostic assay for detection of BCR-ABL translocations, mt mutations, oxidative stress in CML patients
15. Development of nanoparticles-based detection system for cervical cancer cells from cytology samples
16. Development of the human cochlear nucleus
17. Effect of angiotensin receptor modulation in rat middle cerebral artery occlusion: A morphological and biochemical study
18. Effect of curcumin on mice basal forebrain structures following arsenic trioxide exposure
19. Effect of curcumin on murine model of mild acute pancreatitis
20. Effect of garlic (Allium sativum L) extract on mice models of chronic pancreatitis
21. Effect of hydrogen sulphide on migration of human trophoblast cells and its status in Preeclampsia
22. Effect of resveratrol on arsenic trioxide induced cardiac toxicity in mice
23. Effect of resveratrol supplementation on cognitive function and Estrogen receptor profile in hypothalamus and hippocampus of Arsenic trioxide-exposed adult female mice
24. Effects of fluoride in the development of enteric nervous system an experimental study
25. Epigenetic changes during epithelial to mesenchymal transition in trophoblast cells under physiological and pathological conditions
26. Epigenetic changes of Dopaminergic pathway genes and association of GRIN2A gene polymorphism in Alcohol Dependence and Opioid Dependence
27. Epigenetic regulation of brain-derived neurotrophic factor in the central auditory pathway and hippocampus of neonatal chicks exposed to prenatal sound stimulation
28. Evaluation of autofluorescence in human nervous tissue
29. Evaluation of L-arginine induced chronic pancreatitis in Mouse
30. Evaluation of possible association of opioid dependence with SLC6A4 and TPH2 polymorphisms
31. Evaluation of the role of curcumin supplementation on Arsenic trioxide induced neurotoxicity in the basal ganglia of mice
32. Expression of miR-22, Specificity protein-1 and cystathionine beta synthase in Preeclampsia and their role in Trophoblast Invasion
33. Expression of nerve growth factor in colorectal carcinoma patients
34. Expression of n-myc downstream regulated gene 4 (ndrg4) in enteric neurons of colonic tissue of Colorectal carcinoma patients
35. Expression patterns of iron regulatory proteins in rat retina with aging and in experimental iron overload
36. Genetic and Epigenetic profiling in patients of Anterior Pituitary Adenoma
37. Genetic and molecular basis of retinoblastoma
38. Genetic screening of patients with Men2 syndrome
39. Genetic study of Posterior Polar Cataract chick retina
40. Immunohistochemical analysis of High Mobility Group Box 1 (HMGB1) and Receptor for Advanced Glycation End products (RAGE) in different zones of early and late onset preeclamptic placenta
41. Immunohistochemical and quantitative analysis of Cytokeratin19 and cKIT in Gastrointestinal and Respiratory Neuroendocrine Tumors
42. Immunohistochemical study of microglial activation and AMPA receptors in hippocampus of Rat Model of experimental neuropathic pain
43. Impact of preoperative topical steroids on trabeculectomy outcomes: A RCT
44. Impact of short term Yoga based intervention on obesity
45. Impact of Yoga and meditation on Epigenome in Rheumatoid Arthritis
46. Impact of Yoga based intervention on quality of life of glaucoma patients
47. Light-induced oxidative stress and endogenous neuroprotective mechanisms in post-hatch
48. Molecular analysis in Depression: A case control study
49. Molecular studies in Fibromyalgia
50. Morphological study of developing Cochlear nucleus
51. Mutation analysis in Anti Mullerian Hormone gene in poor responders
52. Mutation analysis of candidate genes (NR5A1, DAX1, DHH, DMRT1, SOX9, SRY, WT1) in patients with Gonadal dysgenesis and 46,XY karyotype
53. Mutational studies in patients with Refractory rickets and Hypophosphatemia
54. Paternal factors in embryonic development
55. Remodeling in horizontal cells following light-induced retinal damage in Rat
56. Role of autophagy in experimental acute pancreatitis with special reference to inflammation and cell death
57. Role of Hydrogen Sulphide as a pharmacological modulator in adverse pregnancy outcomes like Preeclampsia
58. Role of miRNA-30 in cystathionine gamma lyase mediated trophoblast cell invasion and status in Preeclampsia
59. Role of miRNA in modulating trophoblast cell invasion
60. Role of miRNA in regulation of angiogenic factors in trophoblast cells
61. Study of the association of matrix metalloproteinase-9 gene polymorphism in Preeclampsia
62. Study on the association of Polymorphism, Methylation and Expression status of Monoamine Pathway genes with Alcohol Dependence
63. Study to identify the genetic basis underlying Stevens–Johnson Syndrome (SJS)
64. Telomere dynamics in male infertility
65. To study phenotype genotype correlation in patients with 5 alpha reductase 2 deficiency and androgen insensitivity
66. To study the role of seminal biomarkers asa non-invasive diagnostic tool in evaluation of male infertility secondary to azoospermia
67. Visual, rapid, non-invasive and cost-effective BK Virus Detection System
68. Yoga based intervention on inflammatory markers and gene expression in blood aqueous and trabecular meshwork in POAG: A RCT

Completed

1. Age related changes in the Human Inferior Colliculus: A morphological and neurochemical study
2. Age related morphological and neurochemical changes in the Human Spiral Ganglion
3. Effect of resveratrol on arsenic trioxide induced cardiac toxicity in mice
4. Morphological study of enteric glia in Colorectal Carcinoma
5. Role of MMP2 promoter Polymorphisms in Preeclampsia
6. Role of Soluble Vascular Endothelial Growth Factor Receptor-1 (sVEGFR-1/sVEGFR-1) in Endoplasmic Reticulum Stress in Preeclampsia—An in vitro study
7. Study of Association of MMP9 gene polymorphisms in Preeclampsia
8. Study of the expression of parvalbumin and calbindin in the Aging Human Inferior Colliculus

Collaborative projects

Ongoing

1. A novel Immuno Nano Fluorescence Assay (INFA) system for noninvasive detection of prostate cancer using urine-based protein biomarkers, PSA and MSMB, Pathology
2. Cytogenetic and molecular analysis in infertility, Anatomy Department, AIIMS, Raipur
3. Decipher mechanistic basis of the intracellular trafficking of the optically active Nanoparticles using super resolution microscopy, JNU
4. Development and validation of electro-mechanical partial task trainers for minimally invasive ventricular, skull base and spine neurosurgery and inertial/haptic sensor-based objective evaluation of neuro-endoscopic skills, Neurosurgery
5. Development of 3D/stereoscopy based virtual reality simulation platform for endoscopic neurosurgery training and pre-operative neurosurgical planning, Neurosurgery
7. Effect of transcranial, magnetic stimulation on pain modulation status in fibromyalgia patients, Physiology
8. Electroencephalographic changes in early and advanced Glaucoma, R P Centre for Ophthalmic Sciences
9. Evaluation of the effect of mindfulness based stress reduction in patients with advanced primary open angle glaucoma, RP Centre for Ophthalmic Sciences
10. Genetics of alcohol and drug dependence, Psychiatry
11. Genetics of angle closure glaucoma, R P Centre for Ophthalmic Sciences
12. Genetics of MEN2 syndrome, Endocrinology, MEN1 gene mutation in patients of primary hyperparathyroidism, pancreatic tumors and pituitary tumors and its clinical implications, Endocrinology
13. Genetics of posterior polar cataract, R P Centre for Ophthalmic Sciences, Collaborative neuro-engineering platform for excellence in innovation and translation research, Neurosurgery
14. Genetics studies in hypophosphatemic rickets, Paediatrics
15. Genetics studies of cardiomyopathies, Cardiology
16. Genome wide analysis to explore stress, inflammation and cellular aging following short and long term Yoga based intervention in obesity and DM, Physiology
17. Genotype and phenotype correlation in POAG, RP Centre for Ophthalmic Sciences
18. Identification and characterization of novel genetic variants associated with cardiovascular diseases in diverse ethnic populations of India, Cardiology
19. Impact of advanced paternal age and poor; lifestyle on sperm epigenome: Possible etiology in autism spectrum disorder, Paediatrics
20. Impact of preoperative steroids on trabeculectomy outcomes: A randomized controlled trial, RP Centre for Ophthalmic Sciences
21. Impact of short term Yoga based intervention in obesity, Physiology
22. Impact of YBLI on MDD-RCT, Psychiatry
23. Impact of Yoga and meditation on Epigenome in Rheumatoid Arthritis, Medicine
24. Levels of Oxidative stress biomarkers in Follicular fluid of women with PCOs undergoing IVF and its relation to outcome, Obstetrics and Gynaecology
25. Loss of sperm DNA integrity in childhood cancers, R P Centre for Ophthalmic Sciences
26. Microsurgical comparison of operative exposure of internal acoustic canal through middle fossa and retrosigmoid hearing preservation skull base approaches—A laboratory investigation, Neurosurgery
27. Mutation analysis of AMH gene in poor responders, YKL40 levels in asthama, Biophysics
28. Mutation analysis of seven genes (NR5A1, DAX1, DHH, DMRT1, SOX9, SRY, WT1) in patients with Gonadal dysgenesis and 46, XY karyotype, Endocrinology
29. Oxidative stress evaluation in amniotic fluid of couples with normal and couples pregnant with fetus with congenital malformation, Obstetrics and Gynecology
30. Oxidative stress in pathogenesis of PCG, RP Centre for Ophthalmic Sciences
31. Phase–III clinical trial with intravasal injectable male Contraceptive-RISUG, Biomedical Engineering
32. Quantitative analysis of far lateral approaches, Neurosurgery
33. Retinoblastoma: Genetic and molecular study, RP Centre for Ophthalmic Sciences
34. Role of ashwagandha in management of Infertility, Guru Gobind Singh University
35. Simple, quick and onsite early diagnostic kit for pathogen detection in asymptomatic stage, National Institute of Plant Genomic Research
36. Support to Indian Institutes to Conduct Training Programme in the area of Operational Research Neurosurgery Skills Training, Neurosurgery
37. To study the gene mutations in the patients with 46 XY DSD due to Gonadal Dysgenesis/Agenesis, Endocrinology
38. Yoga and impact on QOL in Glaucoma, R P Centre for Ophthalmic Sciences
39. Yoga based intervention on inflammatory markers and gene expression profile in blood, aqueous and trabecular meshwork of primary open angle glaucoma patients: A randomized controlled trial, RP Centre for Ophthalmic Sciences

Completed

1. Development of 3D/stereoscopy based virtual reality simulation platform for endoscopic neurosurgery training and pre-operative neurosurgical planning, Neurosurgery
2. Genetic studies in congenital cataract, R P Centre for Ophthalmic Sciences
3. Genetic studies in LHON, R P Centre for Ophthalmic Sciences
4. Neurosurgery skills training facility with 3D endoscopic and 3D microscopic facility and central repository server for archival, streaming and teleconferencing, FIST DST FIST Programme DST FIST Level 2, Neurosurgery
5. Radiological and microsurgical comparison of the operative exposures obtained through far lateral and transcondylar approaches in injected cadaveric human heads, Neurosurgery
6. Role of hydrogen sulphide in migration of human trophoblast cells and its impact on placentation: An in-vitro study, Obstetrics and Gynecology

PUBLICATIONS

Journals: 46 Abstracts: 17 Chapters in books: 1

PATIENT CARE

Genetic Diagnostic and Counselling Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karyotyping</td>
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<tr>
<td>Molecular screening</td>
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</tr>
<tr>
<td>Corneal dystrophy</td>
<td>20</td>
</tr>
<tr>
<td>MEN2A syndrome</td>
<td>22</td>
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<tr>
<td>Miscellaneous cases</td>
<td>70</td>
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Embalming of Dead Bodies

<table>
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<th>Count</th>
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<tbody>
<tr>
<td>For transportation</td>
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<tr>
<td>For teaching/research</td>
<td>30</td>
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</tbody>
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Fluorosis Diagnostic Laboratory: Fluoride Estimation

<table>
<thead>
<tr>
<th>Service</th>
<th>Count</th>
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<tbody>
<tr>
<td>Urine</td>
<td>40</td>
</tr>
<tr>
<td>Blood/serum</td>
<td>40</td>
</tr>
<tr>
<td>Drinking water</td>
<td>47</td>
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</tbody>
</table>

AWARDS, HONOURS AND SIGNIFICANT EVENTS

The students of the department presented their research work in several National and international conferences. Many of them won several awards which are listed below. Dr HK Chatterjee Memorial Gold Medal was presented to Dr Sankat Mochan and Dr Inderjit Dewan Gold Medal for best poster was awarded to Ms Pallavi Aroara. Best oral and poster presentation awards were received by Ms Pallavi Arora, Dr Sankat Mochan, Ms Surbhi Gautam, Shilpi Bisht, Priyam Kumari, Kishore Sesham, Indrapal, V Rakholia (a first year MBBS student), Surbhi Saini and Saba Sarwar. Ms Priyam Kumari received the young investigator award.

Travel grants by extramural funding agencies like the ICMR, DBT, DST and CSIR were received by Dr Vidhu Dhawan, Ms Surbhi Gautam, Ms Binata Marik, Ms Shubhi Saini, Ms Madhuri Tolahunase and Dr Mayank Gautam. Ms Shubhi Saini also received the Lalita and Rabindranath Travel Award. Ms Binata Marik received YUVA Scholarship which included travel grant, registration and accommodation in an International conference. She also received a first prize in essay writing on Crisper-cas9 in the conference. Travel grant from the International Association for the Study of Pain (IASP) was awarded to Dr Mayank Gautam and Ms Shivani Gupta. Travel award from the Indian Academy of Neurosciences was received by Mr Perminder Singh.

Professor TS Roy continued as member of the Editorial board of the Journal of the Anatomical Society of India and Medicine; is associate editor of the journal Pancreas; is Central Public Information Officer (CPIO) for disclosure under RTI for Anatomy Department; was Chairperson, Store Purchase Committee, DO, MBBS Preclinical Curriculum Committee; is Chairperson of the Institute Cultural Committee; was member of various cultural, sports and welfare activities. Under his chairmanship various events were held e.g. Malhaar; Institute Day and AIIMS Got Talent (AGT) at the Institute during the year 2018-2019. He was Member of the PhD Reforms Committee, Staff Council, Centralized Core Research Facility and Anti Ragging Committee of AIIMS, Member Core Committee for AIIMS Convocation; was member of UG Expert Group Committee of the Board of Governors, Medical Council of India; was Member Board of Studies in Anatomy, JN Medical College, Aligarh; was paper setter and conducted comprehensive viva for PhD course at National Brain Research Center (NBRC) Manesar; was PhD examiner for Baba Farid University, Faridkot, and Aligarh Muslim University; was a judge for poster session for International Conference on Microscopy and 39th Annual Meeting of Electron Microscopy Society of India at Bhubaneswar, Orissa, Conference on Neuroscience and 36th Annual Meeting of IAN at Varanasi, UP, National Conference of Anatomical Society of India (NATCON-66) at AIIMS, Rishikesh; chaired sessions in the 10th Annual Conference of the Indian Society of Neuro Oncology, AIIMS, New Delhi; International Conference on Microscopy and 39th Annual Meeting of Electron Microscopy Society of India at Bhubaneswar, Orissa; Advances and updates, Biogerontology and Aging Asia Pacific Geriatric Medicine Network meeting at AIIMS, New Delhi; International Conference on Conjoined Twins at AIIMS, New Delhi; CMC and Workshop on Musculoskeletal Interventions, organized by NAMS,
New Delhi and Conference on Neuroscience and 36th Annual Meeting of IAN at Varanasi, UP; Chaired sessions at 3rd Afro Asia Stereology Congress, MAMC, New Delhi; was invited as external expert for the selection of faculty members by AIIMS Rishikesh, AIIMS Jodhpur, AIIMS Mangalagiri, ESIC Medical College, Hyderabad and PGIMER Chandigarh; reviewed manuscripts for the journals Annals of Indian Academy of Neurology and Anatomical Society of India; conducted the MD (Anatomy) exam of Delhi University, a workshop on Stereology, as part of IBRO Conference at AIIMS, New Delhi on 22-23 October 2018 and 3rd Afro Asian Stereology Congress, MAMC and AIIMS; was visiting faculty in the MSc Neuroscience Programme at Jiwaji University, Gwalior, Madhya Pradesh; attended the following conferences/meeting/symposia: EMSI Conference, Bhubaneswar, meeting of Board of Studies for Amity Institute of Neuropsychology and Neurosciences, Amity University, Noida, Symposium on "Aligning Medical Education with the National Health Policy" at CMC, Vellore, International Conference on Neuroscience and 36th Annual Meeting of IAN at Varanasi, presented poster at 48th Annual Meeting of Society for Neurosciences at San Diego, USA, 66th Annual Conference of the Anatomical Society of India, at AIIMS, Rishikesh.

Professor A Shariff served as the Professor in charge, Computer Facility; also served as the Chairman of the CCTV Committee, Committee for procurement of computer printers for Exam Section and Tele Medicine Facility; was a Member of the Doctoral Committee, Departmental Promotion Committee, Ethics Committee, Library Committee, Store Purchase Committee, Selection Committee, SVT Committee and Technical Specification Committee of KLWig CMET.

Professor Pushpa Dhar was an Expert of the Board for the interview of faculty positions in Anatomy at Dr Baba Saheb Ambedkar Medical College and Hospital, Government of NCT, Delhi, Expert member of the Selection Committee for Walk-in-interview for post of SR on regular basis in Anatomy Department at MAMC, Delhi, National Editorial Board Member of the Journal of Forensic Chemistry and Toxicology; was appointed to the Board of Examiners, Delhi University (2019); chaired a Scientific Session in the IIIrd Asian and African Stereology Congress at MAMC, Delhi.

Professor SB Ray served as an external examiner for regular and supplementary Ist Professional MBBS examination in Anatomy at Delhi and Indraprastha Universities; was the external examiner of PhD thesis at the Department of Neurophysiology, National Institute of Mental Health and Neurosciences, Bangalore; was appointed Visiting Faculty at Jiwaji University Gwalior for teaching MSc Neuroscience course.

Professor Rima Dada was felicitated and received Lalor Foundation Award at Annual Meeting of American Society of Andrology, and Best Researcher Award in Molecular Biology in 2019 by IJRULA and World Research Council; received Certificate of Commendation Award for the outstanding publication in Clinical Research at 63 AIIMS Foundation Day; was nominated as fellow of NAMS and FIMSA; was nominated as board of governors and member PG Expert Group of MCI and Member Specialty Board for Anatomy by NBE; was member of expert committee to review proposals for DM Medical Genetics; continues to be on editorial board and reviewer of several journals; was a jury member for MRC fellowships, Edinburgh and for Rovan International Research Awards in Reproductive Biomedicine; is member of ICMR task force on male Infertility; reviewed projects for DBT, UGC, ICMR, IndoUS Technology Forum, Welcome Trust; was also member ICMR expert committee meeting to establish centres for advanced research under CARE; is external faculty for Genetics at HIMS, and DDC, ND; gave skype interviews and appeared in documentary on impact of Yoga in complex lifestyle diseases on Doordarshan; works on genetic, lifestyle factors and Yoga impact on health and wellness appeared in all leading national and several international newspapers (over 15 times); received “certificate of honour” during CME for Yoga Teachers organized by MDNIY, Ministry of AYUSH, GOI; has evaluated MD PhD theses in Genetics and was external examiner PhD Genetics at GNDU, Ambedkar Centre, CCMB and South Campus; was also nominated by MCI and accreditation council for assessment, accreditation, academic audit of various medical colleges; delivered 4 Plenary and 26 invited lectures; chaired sessions in 12 conferences. Her student received best prize (third) on Institute Research Day; PhD students received Newton Bhathia fellowship and was also selected for 68th Lindau Nobel laureate meeting, Germany; students received best paper award, First and Second prize at various national international meetings as NBRCOM 2018, travel award from immunology foundation, CSIR. She is Committee Member of the NBE for “Validation of MCQ Question Bank” and member of sexual harassment committee; conducted precongress workshop on Holistic Medicine at Ferticon (Annual Meeting of IFS); is member Reception Committee for AIIMS Convocation, Committee for Selection of DMA medal for the year, Member of Institute Biosafety Committee on Recombinant DNA Research; member of curriculum committee; was faculty in charge student’s union elections; was invited for SR and faculty selection to various medical colleges; reviewed Snails textbook of Neuro Anatomy and Longman’s Embryology.

Professor Arundhati Sharma acted as a reviewer for many PhD theses and has been an external examiner for PhD viva at NIMHANS, Bangalore; has reviewed many manuscripts for possible publication of several journals and also project proposals of various extra mural funding agencies; is one of the members of the skill India initiative of the
government of India; has served as one of the judges for research work evaluation in the First AIIMS Research Day Programme.

**Professor Renu Dhingra** was Chairperson in scientific session in NEURO-ISNOCON held on 5 April 2018 and 66th National Conference of Anatomical society of India, held from 12-14 November 2018 in Department of Anatomy, AIIMS, Rishikesh; was appointed as Life Member of Virtual Teaching Society of India and Founding Fellow of the Virtual Teaching Society of India in February 2018; received second position award in Oral Presentation in an International Health Conference held in Colombo in October 2018. Research work being done in my lab also received two other prestigious awards Dr HK Chatterjee Memorial Gold Medal for Oral Presentation and Dr Inderjit Dewan Gold Medal for Best Poster in Clinical Anatomy; was Technical Advisor, Anatomy Musculo-skeleton Ultrasound Society; Member of International Society of Plastination; Executive Member of DASMOS and Member of Teaching Schedule Committee of AIIMS; Member of the Academic Advisory Panel for Virtual Teaching in AIIMS; faculty in-charge stores; external examiner for MTR course at NDMC Hindu Rao Hospital and BDS course at MAMC Medical College; Expert for faculty selection of various Medical Colleges; Reviewed Projects from ICMR, postgraduate thesis from other Medical Colleges, research articles submitted to various journals; Resource faculty in various workshops: Esthetic Express 2018, Hands-on Workshop Plastination ESIC Medical College and Hospital, International Brain Research Organization, Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease and Cadaveric Ultrasound Guided Regional Anaesthesis Work shop.

**Professor TC Nag** reviewed manuscripts for Microscopy and Microanalysis, Cell Tissue Organs, Microscopy Research and Techniques, Frontiers in Pharmacology, Current Pharmaceutical Designs, Biomedicine and Pharmacotherapy, Scientific Reports, General and Comparative Endocrinology, Oxidative Medicine and Cellular Longevity, Journals and DST-SERB research projects for financial support; chaired scientific sessions at XXXVI Annual Meeting of Indian Academy of Neurosciences (BHU) and in 66th Annual Meeting of Anatomical Society of India (NATCON 66) held in AIIMS, Rishikesh.

**Dr SK Jhajharia** was awarded Dr PC Bansal Memorial Gold Medal for published papers in Journal of Anatomical Society of India; received International Grant from International Association for the Study of Pain for the 17th World Congress on Pain, 2018 held in Boston, USA and was a resource faculty for Ultrasound for Anesthesiologists CUSA workshop held in December 2018.

**Dr Tony George Jacob** was involved in the organisation of three international workshops - for editors, for stereologists from Asia and Africa and for neuroscientists from Asia; was awarded the Membership of the National Academy of Medical Sciences; continues to be on the Working Committee of the National Medical Journal of India and is a reviewer for numerous national and international peer-reviewed journals; is also a subject expert for the National Board of Examinations and for Science and Engineering Research Board, DST.

**Dr Neerja Rani** served as Guest faculty at Jiwaji University, Gwalior for MSc Neuroscience course; is also a Resource faculty for a various workshops and symposia - 11th AIIMS Cadaver Ar theroplasty Course-2019, Ultrasound for Anesthesiologists CUSA and Neural Plasticity in Health and Disease, IBRO, 2018; reviews manuscript for Histology and Histopathology Journal, served as an External Examiner (Anatomy) and paper setter for 1st year MBBS at PGIMS Rohtak, HIMSR Jamia Hamdard to conduct practical and viva-voce examination and External Examiner (Anatomy) to conduct practical and viva-voce examination for various paramedical examinations at PGIMS, Rohtak (BPO, BOT, and BPT) and HIMSR Jamia Hamdard; was a paper setter for BSc Nursing First Year Annual Examination, 2018.

**Dr Seema Singh** was the Nodal Officer for organizing anatomy classes for BSc dental courses (DORA and DH); was a Member of the editorial board of the Human Anatomy Open Access Journal; Participated and contributed in various conferences and workshops like the 66th NATCON ASI, 34th Conference of the International Society of Fluoride Research, International Conference on Neuroscience and XXXVI Annual Meeting of IAN, Comprehensive Symposium on Ultrasound for Anaesthesiologist, 2018; is a Visiting faculty at Jiwaji University, Gwalior for the MSc Neuroscience Course.

**VISITING SCIENTIST**

1. Dr Phalguni Anand Alladi, Department of Neurophysiology, NIMHANS, Bangalore, India.
2. Professor Süleyman Kaplan, Department of Histology and Embryology, Medical School Ondokuz Mayis University, Samsun, Turkey.
HIGHLIGHTS

- **41 research projects** are ongoing in the department funded by various national and international agencies such as DBT, DST, ICMR, DHR, DRDO, UGC (MOOCS), Indo-Austrian, Wellcome Trust, Ministry of AYUSH and Intramural AIIMS, amounting to Rs **17.0 crores** and **9 research projects (Rs 2.0 crores)** were completed this year.
- **56 departmental projects** and **51 collaborative projects** are ongoing with different faculty of the department.
- **45 research publications** and **11 abstracts** published in indexed National and International Journals of repute.
- **55 Invited talks** were delivered by the faculty and **66 research papers** were presented by faculty/research students (oral/poster) at various national and international scientific forums.
- Two faculty members received **AIIMS Excellence Award-2018**.
- Faculty and students received various awards and prizes for oral presentations along with travel grant at various national and international conferences.
- 12 MSc, 13 MD, 6 SR and 34 registered PhD students are working in the department.
- The practicals for MBBS and coursework for MD and MSc students teaching curriculum was further expanded to add more advanced classes in various topics encompassing the current advances in research.
- Department organized a Symposium on World Immunology Day on 1 May 2018; ISTR-AIIMS Symposium on Translational Research in Biomedical and Agricultural Sciences on 6 and 7 July 2018 and Symposium on “Mathematics in Biomedical Sciences—An Introduction” on 10 March 2019 at AIIMS, New Delhi.
- Department is providing **clinical services** to the patients and performed different tests in total of **13,907 samples**.

EDUCATION

**Undergraduate**

The department introduced some modifications in the UG teaching curriculum, aimed at enhancing both the skill development and to keep the knowledge at par with the current developments in biochemistry. Case discussions related to didactic lectures and demonstration practical on POCT devices for glucose monitoring and pregnancy testing were introduced to improve the theory-practical connect. Kit based practicals were introduced for some of the routine biochemical analytes (Uric acid and HDL cholesterol) for students to appreciate the differences between traditional and auto-analyser based methods in use. Techniques related to current applications in molecular biology such as restriction digestion and restriction site mapping were also added to the curriculum.

**Postgraduate**

These include 12 MSc and 13 MD students. The department also has 34 PhD students. There are three DST women scientists and four N-PDF working as post doctoral students.

The postgraduate teaching curriculum was further expanded to add more advanced classes in the Cell Biology, Cancer Biology, Immunology, Metabolism and Systems Biology modules. The ‘Clinical Case Discussion’ has been modified to discuss complex case reports from various journals for the junior and senior residents.

As Course Coordinator, Dr MR Rajeswari has successfully completed the SWAYAM-MOOCs course in December 2018 on BIOMOLECULES, a National project (National Mission on Education through Information and Technology (NME-ICT) by UGC-MHRD and currently offering another 2 courses January-2019 onwards.
Conferences organized

- A Symposium on World Immunology Day on 1 May 2018 was organized by the department (Professor Alpana Sharma) at AIIMS under the auspices of Indian Immunology Society
- Department organized the ISTR-AIIMS Symposium on Translational Research in Biomedical and Agricultural Sciences (Dr Pragyan Acharya) at AIIMS, New Delhi on 6 and 7 July 2018
- A Symposium on “Mathematics in Biomedical Sciences—An Introduction” was organized by the department (Professor Subrata Sinha) on 10 March 2019 at AIIMS, New Delhi

CMEs/Workshops/Symposia/National and International Conference

Lectures delivered

Subrata Sinha

1. Molecular reclassification of disease: How the laboratory can guide the clinic, 45th Annual Conference of Clinical Biochemists of India, 24-27 October 2018, Panjim, Goa
2. Family studies enable the dissection of impaired pathways in specific learning disability—Dyslexia, Association of Medical Biochemists of India, Annual Conference, 16 November 2018, New Delhi

Shyam S Chauhan

1. Prognostic significance and interacting partners of heterogeneous nuclear ribonucleoprotein D in oral cancer, 45th Annual Conference of Clinical Biochemists of India, 24-27 October 2018, Panjim, Goa
2. Inhibition of cathepsin B which compromises cell survival, Promotes Apoptosis in Paediatric Acute Myeloid Leukemia is also the Mechanism of Doxorubicin Anticancer Therapy, Central Zone, Indian Academy of Biomedical Sciences Conference (IABSCON-2019), 2-3 February 2019, Lucknow, UP
3. Cysteine cathepsins and their prognostic and therapeutic relevance in Leukemia, Annual Science Day, 28 February 2019, Mehdiggerhar, Haryana
4. Identification of interacting partners of heterogeneous nuclear ribonucleoprotein D in oral cancer, 38th Annual Convention of Indian Association for Cancer Research, 1-3 March 2019, Chandigarh

MR Rajeswari

1. Extracellular biomarkers for ataxias, Biomarkers from research to commercialisation, 24-25 May 2018, Bangalore
2. Comparative analysis of proteomics of PBMCs from ataxia patients and controls, Advanced omics technologies and approaches, 17-19 January 2019, Mumbai
3. Role of iron in pathogenesis of Friedreich’s Ataxia, 56th International Conference on Medical and Health Sciences, 16-17 February 2019, Colombo, Sri Lanka

Kalpana Luthra

1. HIV-1 immunopathogenesis and generation of human anti HIV-1 monoclonal, North Zone ACBI Conference 2018, 7-8 April 2018, AIIMS, Jodhpur
2. Immune response to HIV-1 infection and generation of anti-HIV-1 human recombinant antibodies, Invited Seminars, 12 July 2018, AIIMS, Rishikesh
3. Small group teaching and introduction to microteaching, Workshop in Medical Education, 7 August 2018, THSTI, Faridabad
4. Application of cell sorting, Workshop on Cell Sorting, 11th Annual TCS Conference and Workshops organized by the Cytometry Society-INDIA, 31 October 2018, AIIMS, New Delhi
5. Anti-HIV-1 humoral immune responses in HIV-1 infected children and isolation of cross-neutralizing antibodies, Immunococon 2018, 45th Annual Meeting of Indian Immunology Society, 2 November 2018, THSTI, Faridabad
7. Antibody responses in pediatric HIV-1 infection, Faculty Seminar Series, 1 March 2019, THSTI, Faridabad
8. Facilitator for sessions (i) Problem based learning and microteaching (ii) Assessment of Knowledge-improving essay questions and SAQs, Basic course workshop in CMET, in Medical Health Professions and Education, 12 and 13 March 2019, AIIMS, New Delhi

9. Immune responses in HIV-1 infection: Coevolution of virus and antibody response, Seminars in Molecular Medicine and Biotechnology, 13 March 2019, AIIMS, New Delhi

10. Immune response in HIV-1 infected children and generation of pediatric anti-HIV-1 recombinant antibodies, Seminar Series, 22 March 2019, University of Biotechnology, Guru Gobind Singh Indraprasth University, (USBT, GGSIPU), Dwarka, Delhi

Alpana Sharma

1. Silencing of CD44 splice variants in Urothelial carcinoma of Bladder: A promising therapeutic approach, North Zone ACBICON 2018, 7-8 April 2018, AIIMS, Jodhpur

2. Surveying the crossroads of T cell biology in the immunopathogenesis of Pemphigus Vulgaris, Central Zone ACBICON 2018, 21-22 July 2018, KGMO, Lucknow


5. Potential of Unani Medicine in Cancer, National Conference on Unani Medicine, 11-12 February 2019, New Delhi

6. microRNAs in Multiple Myeloma: Potential diagnostic and therapeutic approach, IABSCON 2019, 24-26 February 2019, Thiruvananthapuram

7. Functional determinants of CD44 splice variants in Urothelial carcinoma of Bladder: A novel therapeutic approach, National Conference on Recent Developments in Biomedical Translational Research, 11-12 March 2019, JNMC, Aligarh

Kunzang Chosdol

1. Clinical significance of novel molecular markers in Glioma, 26th AMBICON 2018, 16-18 November 2018, Delhi

2. A novel oncogenic role of FAT1 signalling in Glioblastoma, Central Zone IABSCON -2019 (IABS), 2-3 February 2019, Lucknow

3. Hypoxia promotes FAT1 regulated oncogenic and stemness properties in glioma, Hypoxia Research: Current Progress and Future Scope, 25 January 2019, Delhi

Sudip Sen

1. Using fetal neural stem cells as a disease model in cerebral palsy, Symposium on “Stem Cell Technology for Neurodegenerative Diseases”, 9 March 2019, Lucknow

2. Identifying differences between cancer stem cells and normal stem cells in colorectal cancer patients, 38th IACR Annual Meeting, 1-3 March 2019, Chandigarh

3. Isolation of cancer stem cells, Pre-Conference Workshop of IACR (Workshop on Cancer Stem Cells), 28 February 2019, Chandigarh

4. Identifying characteristics of cancer stem cells in colorectal tumors of different histopathological grades (diagnostic/therapeutic utility), Invited Lecture on Cell Sorting at the 11th Annual TCS Conference and Workshops, 31 October and 1 November 2018, New Delhi

5. Identifying characteristics of cancer stem cells in colorectal tumors of different histopathological grades in an effort to diagnose and treat aggressive tumors, 45th Annual Conference ACBICON 2018, 24-27 October 2018, Panaji, Goa

Archana Singh I

1. Mitochondrial DNA in Hematological Cancers: 26th AMBICON, 16-18 November 2018, Delhi

Archana Singh II

1. Role of vitamin D in innate immunity modulation based therapeutic targets in Pulmonary Tuberculosis, Federation of Clinical Immunology Society, 20-23 June 2018, San Francisco, USA

Jayanth Kumar

1. Flowcytometry of Hematopoietic Cells, 38th Annual Convention of the Indian Association of Cancer Research, 28 February 2019, Chandigarh
2. Role of IGF2BP family of proteins in lymphomagenesis, 38th Annual Convention of the Indian Association of Cancer Research, 2 March 2019, Chandigarh

Subhradip Karmakar
2. THSD1 as novel target in Breast Cancer, IACR, 2019, March 2019, Chandigarh, India
3. FBXO4 in breast cancer, ISRT Conference, Goa, October 2018, Goa, India
4. RNA hydroxymethyl cytosine as a novel epitranscriptomic signature associated with Acute Myeloid Leukaemia (AML), 34th Ernst Klenk Symposium in Molecular Medicine, October 2018, Cologne, Germany

Ashok Sharma
1. Epigenetic regulation of POTE genes in Epithelial Ovarian Cancer, Integrating Cancer Research into Comprehensive Disease Management: Recent Breakthroughs, 28 February-3 March 2019, Chandigarh
2. Epigenetics and human diseases, DNA Society of India, 24 April 2018, Kolkata

Pragyan Acharya
1. Analysis of *Plasmodium falciparum* Knobs: Proteomics and modeling of protein-protein interactions, 14th International Conference on Vectors and Vector Borne Diseases, 9-11 January 2019, Bhubaneswar, India
2. Investigating the human small intestine with omics approaches: Focus on celiac disease, International Conference on Proteomics for Cell Biology and Molecular Medicine, 12-14 December 2018, Pune, India
3. Innate immune system: Clinical applications, Kalinga Institute of Medical Sciences Faculty Development Programme (CME), 24-29 June 2018, Bhubaneswar, India

Riyaz Ahmad Mir
1. Inverse relationship between retinoblastoma protein and PIH1D1 component of R2TP complex in DLBCL, 45th National Conference of Association of Clinical Biochemists of India (ACBICON 2018), 26 October 2018, Kala Academy Goa

Oral papers/posters presented
1. Anita, Vijay M, Singh K, Gautam PK, Macrophage enhances the mesenchymal stem cells proliferation and differentiation, ACBICON 2018, 24-27 October 2018, Goa
8. Das D, Sharma A, Untying the role of gamma delta T cell subsets: Key players in the immunopathogenesis of pemphigus vulgaris, FIMSA 2018, 10-13 November 2018, Bangkok, Thailand


15. Dhar R, Karmakar S, FBXO4 in Breast Cancer#, ISTR Goa, October 2018, Goa, India


36. Malik N, Chattopadhyay P, Sarkar C, Suri A, Sinha S, Chosdol K, FAT1 gene regulates the expression of PDCD10 gene via microRNA-221-3p in glioblastoma, First Annual Research Day of All India Institute of Medical Sciences, New Delhi, 26 March 2019, New Delhi (First prize, Oral Presentation among AIIMS PhD students)


49. Panda S, Sahu KK, Luthra K, Sharma SK, Singh A, Role of regulatory proteins involved in iron homeostasis in pulmonary tuberculosis and household contacts compared to healthy controls at, ACBICON 2018, 24-27 October, Goa

50. Panda S, Tiwari A, Luthra K, Sharma SK, Singh A, Role of Vitamin D and its associated molecules in innate immunity in category I Tuberculosis as compared to household contacts, Federation of Immunology Society of Asia Oceania Annual Conference 2018, 10-13 December, Bankok, Thailand (Travel Award)

51. Pasha EH, Yadav R, Bansal SK, Batra A, Study of Body Iron Status in Young Healthy Non-Pregnant Females, 26th Annual Conference of Association of Medical Biochemists of India AMBICON 2018LHMC, 17 November 2018, New Delhi


56. Saini C, Sharma A, Ramesh V, Nath I, Th17 cells produce heterodimer IL-17A+/F+ protein and create neutrophilia in leprosy reversal reactions, Immunocon 2018, 1-3 November 2018, THSTI, Faridabad


58. Setthy A, Karmakar S, RNA hydroxymethyl cytosine as a novel epitranscriptomic signature associated with Acute Myeloid Leukaemia (AML), 34th Ernst Klenk Symposium in Molecular Medicine, October 2018, Cologne, Germany

59. Sharma S, Mishra N, Kumar S, Luthra K, Generation and characterization of pseudoviruses from an adult HIV-1 infected long term non progressor for potential subtype C based immunogen design, 1st Annual Research Day, AIIMS, 26 March 2019, New Delhi (First Prize: Poster presentation, MSc Category)


64. Singh A, HDL function: Insights from a study in Acute Coronary Syndrome, ISHR, 17-19 February 2019, Jaipur

65. Singh A, HDL function: Insights from a study in subjects with Acute Coronary Syndrome, NZ ACBICON, 7-8 April 2018, Jodhpur


67. Yadav R, Aggarwal S, Singh A, Mir RA, Changes in the levels of circulating adipokines following surgical weight loss in Obesity, Indian Society for Atherosclerosis Research; ISARCON 2018 JIPMER Pondicherry, 11 October 2018, Pondicherry, India
Funded projects

Ongoing

1. A pilot study to analyze serum levels and intra-tumour expression of cancer-testis antigen POTEE as a new biomarker for ovarian cancer, Ashok Sharma, DHR-ICMR, 2 years, 2018-2020, Rs 25 lakhs
2. A study of immune pathways in the pathogenesis of chronic pancreatitis, Kalpana Luthra, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
3. Assessment of anticancer effect of Triplex Forming Oligonucleotides (TFOs) on the Expression of HMGB1 in Hepatoma Animal Model System, MR Rajeswari, DST, 3 years, 2017-2020, Rs 63.15 lakhs
4. Cell free DNA (cfDNA) as a tool to predict Acute Kidney Injury in Acute-on-Chronic Liver Failure, Pragyan Acharya, DBT, 3 years, 2017-2020, Rs 24 lakhs
5. Deciphering the role of functional determinants of Dendritic cells and their immune cross talk with NK cells: Possible therapeutic target(s) in Pemphigus vulgaris, Alpana Sharma, ICMR, 3 years, 2018-2021, Rs 42.31 lakhs
6. Development of targeted drug delivery using liposomes/nanoparticles on cancer stem cell using herbal plant extract and hsp70-tumor antigen and to evaluate its anti-tumor function, Pramod Kumar Gautam, DST, New Delhi, 3 years, 2019-2022, Rs 40 lakhs
7. Differentiation of fetal neural stem cells to oligodendrocytes—A disease model to decipher the pathogenesis and devise therapeutic strategies for cerebral palsy, Sudip Sen, DBT, 2 years, 2018-2020, Rs 29.2 lakhs
8. Effect of hypoxia on different neural cell types in vitro—A model to design therapeutic strategies against cerebral palsy in preterm infants, Sudip Sen, DBT, 3 years, 2018-2021, Rs 49 lakhs
9. Endoplasmic Reticulum (ER) stress in obesity induced adipose tissue dysfunction and inflammation, Rakhee Yadav, AIIMS, 2 years, 2017-2019, Rs 8 lakhs
10. Genome-Wide DNA Methylation and Genomic Instability Profiling and Evaluating Its Potential as a Biomarker and Immunotherapeutic Target for Ovarian Cancer, Ashok Sharma, DBT-Ramalingaswami Project, 5 years, 2015-2020, Rs 32.5 lakhs
12. Interaction between nanoparticles and cancer cells in context of hypoxia and stemness and invasiveness characteristics, P Chattopadhyay, DST, 3 years, 2017-2020, Rs 80 lakhs
13. Investigating the Association of Plasmodium Purine Salvage Pathway Enzymes and Metabolites with Severe Malaria Outcomes, Pragyan Acharya, SERB, 3 years, 2017-2020, Rs 19 lakhs
14. Isolation and characterization of human monoclonal antibodies from memory B cells of HIV-1 infected children, Kalpana Luthra, DST, 3 years, 2016-2019, Rs 63 lakhs
15. Isolation and characterization of monoclonal antibodies from HIV-1 subtype C infected individuals (Indo South Africa Collaboration Project), Kalpana Luthra, DBT, 3 years, 2017-2020, Rs 88 lakhs
16. Isolation and molecular characterization of colorectal cancer stem cells, Sudip Sen, DBT, 3 years, 2015-2019, Rs 25 lakhs
17. Metabolite mediated intracellular signaling in Acute-on-chronic liver failure, Pragyan Acharya, AIIMS, 2 years, 2018-2020, Rs 5 lakhs
18. Molecular characterization of endometrial cancer and its correlation with clinicopathological features, Ashok Sharma, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
19. Molecular signature of protumoriogenic inflammation in the context of the WHO 2016 classification of glioma, Kunzang Chosdol, AIIMS, 2 years, 2018-2020, Rs 20 lakhs
20. MOOOCs-SWAYAM, MR Rajeswari, MHRD, 1 year, 2018-2019, Rs 13.50 lakhs
21. MOOOCs-SWAYAM, MR Rajeswari, MHRD, 6 months, January-June 2019, Rs 1.20 lakhs
22. MOOOCs-SWAYAM, MR Rajeswari, MHRD, 6 months, June-December 2018, Rs 7.20 lakhs
24. Nuclear Architecture as an Epigenetic Regulator in Pericentromeric localized Cancer-Testis/Germline Antigen POTE Expression in Ovarian Cancer, Ashok Sharma, DST, 3 years, 2017-2020, Rs 55 lakhs
25. Plasma circulating DNA in mitochondrial the assessment of Friedreich’s Ataxia (FA), MR Rajeswari, ICMR, 2 years, 2017-2019, Rs 34.60 lakhs
26. Prevalence of Human Papilloma Virus (HPV) in Indian Patients of Penile Cancer, Alpana Sharma, DHR, 3 years, 2018-2021, Rs 25.0 lakhs
27. R2TP complex as a target of human papilloma virus oncoproteins E6 and E7, Riyaz Ahmad Mir, DST-SERB Core Grant, 3 years, 2018-2021, Rs 27.85 lakhs
28. Rational strategies for tackling hypoxia induced adverse phenotype and therapeutic resistance in neoplasia using a glial tumour model, Subrata Sinha, DST, 5 years, 2017-2022, Rs 98 lakhs
29. Regulation of TET2 proteins by EPO during erythroid differentiation in humans and its role in AML, Subhradip Karmakar, SERB, 3 years, 2016-2019, Rs 42 lakhs
30. Role of HMOX in trophoblast invasion, Subhradip Karmakar, ICMR, 3 years, 2018-2021, Rs 56 lakhs
31. Role of hyperglycemia on macrophage effector function in pathophysiology of Pulmonary Tuberculosis, Archana Singh, SERB DST, 3 years, 2018-2021, Rs 49 lakhs
32. Role of IGF2BP1, an RNA binding protein in lymphomagenesis, Jayanth Kumar Palanichamy, DBT-Wellcome Trust India Alliance Early Career Fellowship for Clinicians and Public Health Researchers, 5 years, 2016-2021, Rs 187 lakhs
33. Role of macrophages in regulation of bone and blood forming stem and progenitor cell migration and development, Pramod Kumar Gautam, DST, New Delhi, 5 years, 2017-2022, Rs 35 lakhs
34. Signalling interaction between FAT1 and p53 under hypoxia: Their influence on tumor phenotype and identification of novel molecular targets in glioma, Kunzang Chosdol, DBT, 3 years, 2016-2019, Rs 55.52 lakhs
35. Study the role of regulation of human heterogenous Ribonucleoprotein D expression in oral carcinogenesis, Shyam S Chauhan, DST, 3 years, 2016-2019, Rs 71.72 lakhs
36. The modulation of insulin resistance and HDL quality by adipose tissue ABCA1 and metabolic status, Archna Singh, SERB-DST, 3 years, 2017-2020, Rs 40.1 lakhs
37. The role of FAT1 regulated miRNAs in Glioblastoma (GBM) aggressiveness: Identification of potential miRNA(s) as clinical marker(s) in GBM patients, Kunzang Chosdol, SERB-DST, 3 years, 2019-2022, Rs 42.33 lakhs
38. The Role of Peroxisome Proliferator-Activated Receptor alpha in Human Placental Development and Preeclampsia, Subhradip Karmakar, ICMR, 3 years, 2019-2022, Rs 62 lakhs
39. To study the functional role of NFKB on FAT1 gene expression in Glioma, Dr Kunzang Chosdol, ICMR, 3 years, 2017- 2020, Rs 33.33 lakhs
40. To study the role of β-defensin on stem cells, cancer stem cells remodeling and its associated microenvironments, Pramod Kumar Gautam, AIIMS, New Delhi, 2 years, 2018-2020, Rs 10 lakhs
41. Unveiling the therapeutic potential of a Unani Herbal Formulation in Hematological Malignancy, Alpana Sharma, AYUSH, 3 years, 2017-2020, Rs 62.12 lakhs

Total funding received: Rs 15 crore 17 lakhs

Completed

1. A candidate gene approach to identify common driver mutations in Pancreatic Ductal Adenocarcinoma (PDAC) in Indian patients, Subhradip Karmakar, AIIMS Intramural, 2 years, 2017-2019, Rs 10 lakhs
2. Characterization of ADCC activity in the plasma of acute HIV-1 infected paediatric patients, Kalpana Luthra, AIIMS, 2 years, 2016-2018, Rs 7 lakhs
3. Elucidating the mechanisms underlying documented osteogenic activity of Symphytum officinale in human bone marrow derived mesenchymal stem cells in vitro, Sudip Sen, Ministry of AYUSH, 3 years, 2015-2019, Rs 47.6 lakhs
4. Expression and mutational analysis of the R2TP complex and its bridging proteins in DLBCL, Riyaz Ahmad Mir, AIIMS, 2 years, 2017-2019, Rs 8 lakhs
5. Population prevalence of Vitamin D deficiency in Urban and Rural Delhi and its Association with Cardiovascular Disease Risk Factors, Archana Singh, DHR, MOHFW India, 2 years, 2016-2018, Rs 28 lakhs
6. Relations of Leucocyte membrane complement regulatory proteins, MBL and MASP2 with the pathophysiology and severity of coronary artery disease, Kalpana Luthra, DHR, 3.6 years, 2015-2018, Rs 44 lakhs
7. Serum hepcidin levels: It’s correlation with ferroportin expression and localization and thus iron export in pathophysiology of pulmonary tuberculosis, Archana Singh, AIIMS, 2 years, 2016-2018, Rs 8 lakhs
8. Study of microRNAs as a diagnostic approach in Multiple Myeloma, Alpana Sharma, AIIMS, 2016-2018, Rs 10.0 lakhs
9. Study of Vitamin D Receptor (VDR) and cathericidin expression and their correlation with FokI VDR polymorphism in Tuberculosis, Archana Singh, SERB DST, 3 years, 2015-2018, Rs 23 lakhs
**Departmental projects**

**Ongoing**

1. A longitudinal study of the effect of early initiation of ART on the innate immune responses in HIV-1 infected children
2. An immunological and molecular aspects for diagnosis of premature ovarian failure
3. Association between cancer cell differentiation and tumor microenvironment in human colorectal carcinoma
4. Characterization of astrocytes derived from human fetal neural stem cells
5. Cloning and functional analysis of Cancer Testis Antigen POTEE in Epithelial Ovarian Cancer
6. Comparative TNF alpha Profiling in P. Vivax Infected Severe and Mild Malaria Patients
7. Cysteine cathepsins in acute lymphoblastic leukemia: Implications in prognosis and therapeutics
8. Effect of nanoparticles on stemness and migration characteristics of cancer cells under different oxygen concentration
9. Effect of zeta potential on uptake of PLGA biodegradable nanoparticles by cancer cells
10. Elucidating the immune escape mechanism in renal cell carcinoma
11. Elucidation of molecular mechanism of differential expression of cathepsin B in breast cancer cells with different metastatic potential
12. Epigenetic therapy to reverse EMT and suppress cancer metastasis
13. Exploring the role of Versican and its regulation by miRNA in Multiple Myeloma
14. Extracellular Matrix remodeling in adipose tissue dysfunction of obese individuals
15. FAT1 and p53 on chemo-sensitivity of Glioma
16. FAT1 protein: Its processing and cellular function in glioma cells
17. Functional characterization, expression, and clinical significance of Cancer-Testis/Germline Antigen POTEB in Ovarian Cancer
18. Functional interaction of FAT1 and miRNA in glioma
19. Gamma delta T cells in immunopathogenesis of Pemphigus vulgaris
20. Generation and Characterization of anti HIV-1 human monoclonal antibody(s) from a subtype C infected pediatric elite neutralizer
21. Generation and Characterization of anti HIV-1 human monoclonal antibody from subtype C infected adult long term non progressor
22. Generation and characterization of pediatric HIV-1 C trimers towards immunogen design
23. Generation and characterization of pseudoviruses from an adult HIV-1 infected Long Term Non Progressor (LTNP) for potential subtype C based immunogen
24. Generation and characterization of pseudoviruses from children with perinatally acquired HIV-1 infection
25. Host parasite interactions in Malaria
26. Hypoxia and response to chemotherapy: A study in glial tumor cell lines
27. Identifying different stages of endothelial dysfunction in vitro and validating them in individuals exposed to cardiovascular risk factors
28. Innate Immune Responses in ACLF
29. Internalization of Carbonic Anhydrase 9 in invasive subset of cancer cell
30. Isolation and characterization of Human anti-HIV-1 monoclonal antibodies from infected children
31. Molecular Signature of Glioma in the context of WHO 2016 classification of Glioma
32. Proteomics of FRDA positive, FRDA-suspected and FRDA-carriers, On-going (PhD) Chief-Guide
33. Role of 3D genome architecture as epigenetic regulator of pericentromeric localized Cancer-Testis/Germline Antigen POTE in Cancer
34. Role of cMYC and EGFL7 in ETV6-RUNX1 translocation positive B-cell Acute lymphoblastic leukemia
35. Role of gamma delta T cells and scavenger receptors in vitiligo
36. Role of Human Heterogeneous Ribonuclear Protein D in Oral Cancer
37. Role of hyperglycemia on macrophage effector function in pulmonary tuberculosis
38. Role of IGF2BP1 in of ETV6-RUNX1 positive B cell Acute Lymphoblastic Leukemia
39. Role of non-coding RNAs in regulating IGF2BP3, an oncofetal RNA binding protein
40. Role of Prothymosin-α in glial tumorigenesis
41. Role of RNA methylation and IGF2BP expression in B-cell Acute Lymphoblastic Leukemia
42. Role of TET2 in Myelodysplastic Syndromes
43. Role of TET2 protein in pathogenesis of Acute Myeloid Leukemia
44. Study of androgen receptors mediated events and molecular heterogeneity in Breast Cancer
45. Study of Autophagy associated HMGB-1 and its related molecules in Urothelial Carcinoma of Bladder
46. Study of induced Th17 cells in leprosy reactions patients; a new therapeutic approach
47. Study of Mycobacterium indicuspranii and Human Beta Defensin as adjunct in Chemo-immunotherapy against Mycobacterium tuberculosis in vitro
48. Study of Vascular Endothelial Growth Factor (VEGF-A) and its Isoforms in Adipose Tissue Dysfunctions in Obesity
49. The interplay of RNA methylation and IGF2BP family of RNA binding proteins in regulation of gene expression in cancer
50. To assess the potential utility of cathepsin L and cathepsin B as universal biomarkers of cancer
51. To investigate the role of nuclear receptors in the pathogenesis of carcinoma gallbladder
52. To investigate the role of reactive Oxygen species in Development of Pre-eclampsia
53. To study the effect of high glucose exposure on Trophoblast invasion and differentiation
54. To study the gene expression in GBM cell lines under different degree of hypoxia and the role of p53 in HIF1 regulation under severe hypoxic condition
55. To study the role of β-defensin on stem cells, cancer stem cells remodeling and its associated microenvironments
56. Uptake of biodegradable nanoparticles by cancer cells

Completed

1. Analysis of cell-free nucleic acids in serum of patients with Acute-on-chronic Liver Failure
2. DNA Methylation Effect on POTEB Expression in Epithelial Ovarian Cancer
3. Effect of DNA Methylation in Expression of Cancer-Testis/Germline Gene POTEE in Ovarian Cancer
4. Effect of hyperglycemia on macrophage function in pathophysiology of pulmonary tuberculosis
5. Elucidating the role of Symplytum officinale in osteogenesis in human bone marrow derived Mesenchymal Stem Cells in vitro
6. Expression and clinical significance of serum MicroRNAs in Human Gallbladder Cancer
7. Inflammatory biomarkers HMGB1 and TGF-1 in Peri-Miniscrew Implant Crevicular Fluid (PMICF)
8. Isolation and characterization of human monoclonal antibodies from memory B cells of selected HIV-1 infected Indian Individuals
9. Proteomics of Small Intestinal Biopsies in Celiac Disease
10. Regulation of FAT1 Gene Expression in Gliomas
11. Role of cortisol on Human Trophoblast Invasion and Differentiation
12. Role of stochasticity in shaping working memory and Schizophrenia
13. Signaling interactions between FAT1, p53 and HIF1α in Glioma
14. Study of RASSF genes and their signaling in Bladder Cancer
15. To study the role of Peroxisome Proliferator Activated Receptor Alpha (PPARα) in Trophoblast Invasion

Collaborative projects

Ongoing

1. A comparative pilot study of rectus fascia pubovaginal sling surgery vs TOT in patients with uroynamically proven SUI, Obstetrics and Gynaecology
2. A study of epigenetics of Breast cancer by evaluation of tissue site-specific Promoter DNA methylation profiles in Breast Cancer, Surgery
3. Anemia Research Consortium as part of National Centre of Excellence and Advanced Research on Anemia (NCEAR-A), Community Medicine
4. Assessment of single versus subsequent microosteoperforation stimulated IL-1beta levels during orthodontic tooth movement—A pilot study, Dental Surgery
5. Biophysics of protein, Biophysics
6. Development of single-cell derived clonal spheroids as a tool for drug discovery in cancer research with focus on head and neck cancer, School of Life Science, JNU, New Delhi
7. Dietary diversity and nutritive value of indigenous foods in addressing food security and nutritional status of vulnerable tribal communities of India, IIPHI-Delhi, Public Health Foundation of India, Delhi
8. Estimation of novel Proteins among Older Subjects as biomarker for cognitive impairment, Geriatric Medicine
9. Evaluation of RANKL in GCF and rate of tooth movement during canine retraction assisted with low level laser therapy—a randomized controlled trial, Dental Surgery
10. Evaluation of serum otolin-1 as a biomarker and significance of Serum Vitamin-D levels in benign paroxysmal positional vertigo patients, Otorhinolaryngology
11. Exploring a unified pathway for the anti-atherogenic effects of adiponectin, sphingosine 1-phosphate (S1P) and High-Density Lipoprotein (HDL) on endothelial cells, Cardiology
12. Exploring the link between the RNA binding protein IGF2BP3, long non-coding RNA linc-RoR and their targets in migration and invasion of epithelial cancer cell lines, Biochemistry
13. Exploring the role of intracellularly formed sphingosine 1-phosphate (S1P) in mediating anti-atherogenic effects of adiponectin on endothelial cells, Cardiology
14. Expression of Cancer Testis Antigen POTE in Ovarian Tumors and its Clinical Significance: A pilot study, Obstetrics and Gynaecology
15. Expression of Reg-4 and MUC-4 in patients with carcinoma of pancreas, Gastroenterology
16. FBXO4 as a novel ubiquitin ligase that targets cyclin D in pathogenesis of Breast Cancer, Biochemistry
17. Human Papillomavirus status in Penile carcinoma in Indian patients and correlation with Clinico-pathological staging, Urology
18. Identification and in-vitro functional assay of novel driving tyrosine kinases in Indian BCR-ABL-like acute lymphoblastic leukemia, Lab Oncology
19. Identification of Glucose related protein 78 (GRP78) as a biomarker for tumor behavior in patients of renal cell carcinoma, Urology
20. Identification of novel transcripts and non-coding RNA in Fuchs’ Endothelial Corneal Dystrophy (FECD), RP Centre
21. Immunological evaluation in IVF failure patients, Obstetrics and Gynaecology
22. Impact of Yoga and Meditation on Epigenetic Profile in Rheumatoid Arthritis, Anatomy
23. IMRG Project: Study of inner ear protein otolin-1, vitamin D, ionized calcium in circulation as a biomarker in non Meniere’s disease vertigo patients, Otorhinolaryngology
24. Investigation of the involvement of plasma membrane ATP Binding Cassette Transporter (ABCA1) in adipose tissue mediated insulin resistance, Surgical Disciplines
25. Development of a multiplex real time PCR (qPCR) assay for simultaneous detection of hepatitis viruses (a-g) in serum, Laboratory Medicine
26. miRNA as biomarker in chronic pancreatitis patients who are at high risk for developing pancreatic cancer, Gastroenterology
27. Molecular analysis to explore resistance against receptor Tyrosine Kinase Inhibitors (TKI) in Renal Cell Carcinoma (RCC) and the prognostic role of CXCR1 expression in patients with metastatic RCC (mRCC), Urology
28. Molecular Characterization of Endometrial Cancer and its correlation with clinicopathological features, Pathology
29. Molecular characterization of malignant lacrimal gland tumours, Dr RP Centre
30. Molecular characterization of NFkB pathway in uveal melanoma, Dr RP Centre
31. N22 region of torque teno virus: Cloning, Expression and use of translational peptides in immunological assays and proteomic analysis, Laboratory Medicine
32. One carbon metabolism and cognitive impairment in older Indians, Geriatric Medicine
33. Placental growth factor as a predictive and prognostic marker for development of pre-eclampsia in high risk patients, Obstetrics and Gynecology
34. Prospective non-randomized controlled trial to compare the efficacy of subcutaneous etanercept versus oral methotrexate in moderate to severe chronic plaque psoriasis and to correlate response with Th1, Th2, Th17 and Treg cell patterns, Dermatology

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35. Role of Hydrogen Sulfide as a pharmacological modulator in adverse pregnancy outcomes like preeclampsia, Anatomy
36. Role of miRNA mediated modulation of signal transduction in pancreatic cancer, Gastroenterology
37. Role of mitochondrial heterogeneity in the progression and prognosis of Acute Myeloid Leukemia (AML), Medical Oncology
38. Role of PARP1 and γ-Glutamylcysteine Synthetase Inhibitor in Cisplatin Sensitivity and Correlation With DNA Methylation in Ovarian Cancer, IRCH
39. Role of placental growth factor, uterine artery Doppler and 3D Doppler ultrasound of placenta for prediction of pre-eclampsia in high risk pregnancies, Obstetrics and Gynecology
40. Role of Vascular Endothelial growth factor in management of Recurrent Respiratory Papillomatosis, Otorhinology (ENT)
41. Study of osteogenic humoral factors on fracture healing in patients with head injury: Decoding the mystery, Orthopedics
42. Study to identify the genotype phenotype correlation in testicular biosynthetic defects and 5-α reductase deficiency with respect to disorders of sex development, Paediatric Surgery
43. The effect of ultrasound guided quadratus lumborum block on postoperative analgesia and neuroendocrine stress response in paediatric patients undergoing elective open pyeloplasty, a randomised control trial, Anaesthesia Pain Medicine and Critical Care
44. The Role of Leukotriene A4 hydrolase gene Polymorphism and Clinical outcome correlate in Corticosteroids treated Tubercular Meningitis Patients, Neurology
45. To assess link between mtDNA copy number and reprogramming of mitochondrial metabolism in pediatric acute lymphoblastic leukemia, Medical Oncology, IRCH
46. To evaluate the effect of intralipid supplementation on implantation rate in women with two or more failed ivf/icsi with elevated natural killer cell levels—A pilot randomized controlled trial, Obstetrics and Gynaecology
47. To investigate the molecular mechanisms of Keratoconus (KC) amongst Indian subjects, Dr RP Centre
48. To study the correlation between candida and proinflammatory cytokines and chemokines in Oral Leukoplakia with Antifungal Therapy, Centre for Dental Education and Research
49. To study the influence of CYP2C19 polymorphism on bortezomib blood concentration and clinical response in multiple myeloma patients, Pharmacology

Completed

1. Association between serological levels and genetic polymorphisms of VEGF A and C with clinicopathological characteristics of oral squamous cell carcinoma and oral submucous fibrosis—A pilot study, Centre for Dental Education and Research
2. Cobalamin and Folate status amongst children aged 6-59 months attending a secondary health care facility in district Faridabad, Haryana, Community Medicine
3. Correlation of cord blood and breast milk IGF-1 levels with neonatal adiposity in infants born to mothers with gestational diabetes mellitus—A prospective cohort study, Paediatrics
4. Elucidating the mechanisms underlying documented osteogenic activity of Symphytum officinale in human bone marrow derived mesenchymal stem cells in vitro, Department of Applied Mechanics, IIT Delhi; CCRH, New Delhi; Orthopaedics, AIIMS, New Delhi
5. Identification of circulatory tumor cells in bladder cancer after TURBT procedure, Urology
6. Impact of statin therapy on HDL functionality in Acute Coronary Syndrome patients, Cardiology
7. Role of Peroxisome Proliferator Activated Receptor Alpha (PPAR Alpha) in Trophoblast Invasion, Biochemistry
8. Salivary MicroRNA: Their utility as biomarker during molecular changes in Tobacco users Vs. Tobacco Non-Users, Otorhinolaryngology

PUBLICATIONS
Journals: 40 Abstracts: 11 Chapters in books: 1 Books: 1

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### PATIENT CARE

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**Total no. of tests 13,907**

### Quality control

Apart from routine internal quality assurance scheme, Successful monthly participation in External Quality Assurance Scheme (EQUAS) for last one year to deliver quality reports.

Department has standardized the porphyria tests and started receiving samples from different departments of the Institute.

Department of Biochemistry has done free genetic test for ataxia patients with FRDA and suspected FRDA coming from Neurology and Paediatric Neurology and Paediatric Genetics.

### AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Professor Subrata Sinha** delivered Professor TN Pattabiraman oration in ACBICON 2018 in Goa; Professor MG Deo Oration in IACR Annual Meeting 2019 in Chandigarh. **Institutional Committees (Governance):** Society, Rajiv Gandhi Centre of Biotechnology; Regional Centre of Biotechnology, Faridabad. **Institutional Committees (Scientific, Research, Academic):** Scientific Advisory Committee (SAC) of Institute of Pathology, ICMR (2008-Currently Chairman); SAC, National Institute of Immunology; Research Council (RC) Centre for Cellular and Molecular Biology, Hyderabad; RC, Indian Institute of Chemical Biology, Kolkata; RC, Centre for Cellular and Molecular Biology, Hyderabad; SAC, Rajiv Gandhi Centre of Biotechnology. **Committees of Scientific Ministries and Departments:** Department of Biotechnology: Project Review Committee (PRC/Expert Group) Neurodisease Biology (Chair 2015-2017). **Department of Science and Technology (DST):** Chairman, Cognitive Science Research Initiative (2014-till date); Chairman, Science and Technology of Yoga and Meditation(2015-till date). **Indian Council of Medical Research (ICMR):** Chairman, PRC for Biochemistry, Immunology and Allergy; Member, PRC for Cell and Molecular Biology. **Editorial Board, Current Science:** Working Committee, The National Medical Journal of India; Member, National Advisory Committee for Stem Cell Research and Therapy; Member, Gene Therapy Advisory Committee; Convener, NCR Delhi Chapter, Indian National Science Academy.

**Professor SS Chauhan** was elected fellow of The National Academy of Sciences, Allahabad; Awarded AIIMS Excellence Award (Second Prize); Member of SERB Young Scientist—Life Sciences Expert Committee of DST, Pre Scientific Advisory Committee of National Institute of Pathology (ICMR), New Delhi, UG Expert Committee by Board of Governors in Suppression of Medical Council of India, Library Committee, Task Force for Women Safety and Gender Sensitization at AIIMS, Institute Day Celebration Committee, Biotechnology Teaching Advisory Committee, AIIMS; Bio-Safety Committee, V.P. Chest Institute, University of Delhi, and DBT-nominee for Bio-safety committee of Institute of Genomics and Integrative Biology, Mall Road, Delhi, Member, Board of Studies of Aligarh Muslim University, Aligarh, Standing Committee of Academic Council, Banaras Hindu University and Course Curriculum Committee of King George Medical University Lucknow; Expert for Evaluation of Intramural Research Grants at AIIMS, Jodhpur; Expert for selection of faculty at AIIMS Jodhpur, AIIMS Patna, PGIMER Chandigarh, Institute of Liver and Biliary Sciences, Delhi; Subject expert for selection of DBT-RA, CSIR-RA and ICMR post-doctoral fellowship; Member Expert Committee of Guru Gobind Singh Indraprastha University for recognition of medical teachers; Editorial Board of Research and Reports in Biochemistry and Indian Journal of Clinical Biochemistry as well as reviewer for various national and international scientific journals; Life member of Society of Biological Chemists (India), Association of Clinical Biochemists of India, Indian Association for Cancer Research and Indian Academy of Biomedical Sciences.

**Professor MR Rajeswari** was Vice President of Society of Neurochemistry, India, December 2016; President of “DNA Society of India”; ICMR Project Review Committee (PRC) for Neurochemistry, 2006 onwards; Research Advisory Board, Central University of Rajasthan, Ajmer; Advisory Board Member of Rare Disease Society of India; Chairperson at: Neuropedicon: Emerging trends and advances in diagnostics and therapeutics in Paediatric Neurology and International Conference on Responsible Research and Innovation in Science, Management and Education, Panjab University; Member, Department of Health Research, Ministry of Health (DHR), Medical Technology; University Grants Commission on various committees 2006 onwards; Member, School of Life Sciences, Central University, Rajasthan, 2013-onwards; Expert Mentor for INSPIRE, DST; Member, Research Council “SV University”, Tirupati; Expert Reviewer for Scientific Journals: International Scientific reports, Plos One, Journal of Molecular Structure; DNA and Cell Biology; Molecular Biology Reports, Medicinal
Professor Kalpana Luthra was elected as Executive Committee Member of the Indian Immunology Society in 2018; Member of Scientific Advisory Group (SAG) Committee to evaluate proposals submitted under the National Biopharma Mission, BIRAC, 5-6 October 2018; Member of Project Oversight Committee (POC) of ICMR for study entitled “Cohorts of HIV resistance and Progression (2018-2020)”; Chairperson of Local Research Committee for Multidisciplinary Research Unit at Maulana Azad Medical College; Subject expert of selection committee meeting for AIIMS, Nagpur for the selection of regular faculty in Biochemistry for AIIMS, Nagpur, at JIPMER, Puducherry from 19 to 20 June 2018; Coordinator of workshop on Cell Sorting in the Department of Biochemistry, AIIMS, organized by The Flow Cytometer Society, 31 October 2018; Editorial Board member for Indian Journal of Clinical Biochemistry (IJCB); Jury Member for selection of Sun Pharma Science Scholar Awards for the years 2016, 2017 and 2018 in Biomedical Sciences and Pharmaceutical Sciences; Member for Core Committee for CCRF; Co-chairperson for AIIMS Cultural Committee; Co-Chairperson for Annual Report Editing Committee; Member of Expert Group Review Committee of ICMR to review proposals under Cell and Molecular Biology, Genomics and Stem Cell Research; January 2019.

Professor Alpana Sharma was member of Expert Selection Committee for faculty posts at Dr Baba Saheb Ambedkar Medical College, Delhi Government and ESIC, Faridabad; Nidhi Gupta: DST-AWSAR (Augmenting Writing Skills for Articulating Research) award for the top 100 PhD students (February 2019); Treasurer, Indian Immunology Society (2014-2018); Organized the Symposium on International Immunology Day on 29 April 2018 at AIIMS, New Delhi; Book release in Hindi on “Your Amazing Immune System” for Immunology awareness amongst school children and young researchers; Active member of American Association for Cancer Research, USA and International Gynecologic Cancer Society, USA; External examiner for PhD thesis and viva conduction at JN Medical College, Aligarh Muslim University, JIPMER, Puducherry and KGMC, Lucknow; External examiner for MD at Delhi University, Swami Vivekanand University and JNmed Cool AMU; Reviewed Ad hoc research proposals of DBT, DST, AYUSH and UPCST submitted for financial grant; Chaired the session at Immunocon 2018 at THSTI, ACBICON, Goa; Member, Annual Report Committee, AIIMS and Teaching Schedule Committee for UG at AIIMS.

Professor Kunzang Chosdol received AIIMS Excellence Award-2018 (3rd Prize); Vice-President (2016-2019) Indian Association for Cancer Research (IACR); Reviewed manuscripts for the Nature Publishing Group (NPG) and Impact Journals; Validation/moderation expert of Questions for DNB exams at NBE, Dwarka; Reviewed PhD and MD thesis of other Institute/Universities (DU and PGI Chandigarh).

Dr Sudip Sen, PhD student (Dr Janvie Manhas) was selected for ICMR DHR Young Scientist Fellowship with an independent grant (Investigating the role of novel genes in colorectal cancer stem cells; PhD student (Dr Janvie Manhas) was selected for the DST WOS-A Woman Scientist Fellowship with an independent grant (Role of NUPR1 in colorectal cancer stem cells; 4 January 2018-3 January 2021; Rs 8.96 lakhs); PhD student (Mr. Devanjan Dey) received the Best Poster Award at 45th Annual Conference ACBICON 2018 at Panaji, Goa, 24-27 October 2018; PhD student (Mr. Devanjan Dey) was awarded the 3rd Prize (PhD Posters) at the 1st Annual Research Day, AIIMS, New Delhi on 26 March 2019.

Dr Ashok Sharma was elected as Assistant Joint Secretary of “DNA Society of India” for the period of 2018-2020; Coordinating member for Indian Cancer Research Consortium (ICRC), ICMR, New Delhi; Member of National Consultation for Strengthening Cancer Screening Intervention, Ministry of Health and Family Welfare, Government of India; Expert member of project review committee of “Innovative Translational Research (ITR) division”, ICMR, India; Expert member of project review committee of “Cell Tower and Mobile Radiation programme”, DST, India; Founding member of “Indian Society of Clinical Oncology”; Chaired the session “Young Speaker Programme” as well as examiner for the poster session, Symposium on Accelerating Biology 2019: Towards Thinking Machines, 4-7 February 2019, Pune

Dr Pragyan Acharya co-organized the session on PBL with Dr Kalpana Luthra, Basic Course Workshop in Medical Health Professions’ Education, 11-13 March 2019, AIIMS, New Delhi

VISITING SCIENTISTS

1. Dr Patrick Duffy, Lab Chief, Laboratory of Malaria Immunology and Vaccinology, NIAID, NIH
2. Professor Utpal Tatu, Department of Biochemistry, Indian Institute of Science, Bangalore
3. Dr Rajnikant Dixit, NIMR, Dwarka.
HIGHLIGHTS

The department of biomedical engineering was established in 1971 as a joint venture of AIIMS, New Delhi and Indian Institute of Technology Delhi. The department has applied engineering principles to address medical and biological problems. The department has collaborative projects with major institutes and hospitals in India.

The department has its vision of dissemination of knowledge and development of techniques, tools and methods for diagnosis, follow-up of treatment responses, drug delivery and help in disease treatment. The faculty of the department are dedicated towards research in the following priority areas:

- Biomaterials
- Bioinstrumentation
- Biomechanics
- Medical Imaging

In the past one year the following equipment was installed for clinical research.

- DLS Zeta Analyzer from Anton Paar has been installed in Professor Harpal Singh’s Lab on 12 March 2019

Apart from research, the department is engaged in teaching where PG, UG and Pre-PhD courses relevant to biomedical engineering are offered at IIT Delhi.

EDUCATION: Eight PhD students graduated in the past year.

Workshop/Symposia organized (QIP/CEP)

1. Workshop in Nanomedicine, Skin Scaffold to Substitute Integra: Indian Perspective, Veena Koul, IIT Delhi, DBT Government of India, 16 April 2018.
2. Workshop on Medical Imaging Techniques, Post Processing and Clinical Applications, Amit Mehndiratta and Anup Singh, IIT Delhi, 13-15 April 2018 at Indian Institute of Technology Delhi (Sonipat Campus).

Patents filed: 8


Oral papers/posters presented
2. Choudhary M, Professor Harpal Singh, Anti-microbial biodegradable polymer based wound dressing, 25 October 2018, AIIMS, Delhi
6. Kumar D, Professor Harpal Singh, Early detection of kidney damage using lateral flow immunoassay kit, 25 October 2018, AIIMS, Delhi
8. Mehrotra N, Professor Harpal Singh, Biodegradable tetra block copolymeric nanoparticles for MS1 anti-cancer peptide delivery, 11 August 2018, Boston, US
10. Roychoudhury A, Jha SK, Development of capillary electrophoresis based microfluidic device for quality analysis of Beer and Wine 28th Anniversary World Congress on Biosensors, 12-15 June 2018, Miami, Florida, USA
17. Vats N, Yadav VK, Sengupta A, Gupta RK, Chauhan RP, Singh A, Validating the utility of unsupervised machine learning in segmenting different parts of glioma with respect to histopathological ground truth NMRS-2019, February 2019, New Delhi

RESEARCH

Funded projects

Ongoing
1. Clinical validation of iontophoretic delivery of lidocaine as an alternative to EMLA cream, Veena Koul, Joint collaborative project between IITD and AIIMS (MIFRP), 2 years, 2019-2021, Rs 10 lakhs
2. Combination of GLP-l and an angiotensin II type 1 receptor antagonist for the treatment of Type 2 diabetes, Jayanta Bhattacharya, SERB, 3 years, 2018-2021, Rs 32.8 lakhs

3. Development of biodegradable nanoparticles for concomitant delivery of anti-cancer peptide DNA and chemotherapeutic drugs for cancer therapy, Harpal Singh, DST, 3 years, 2016-2019, Rs 53.5 lakhs

4. Development of Iron Oxide based nanotheranostics for cancer diagnosis and therapy, Harpal Singh, DST, 3 years, 2015-2018, Rs 32 lakhs

5. Development of methodology for quantitative CEST-MRI, Anup Singh, MATRICS, SERB, DST, 3 years, 2018-2021, Rs 6 lakhs

6. Fluorescent nanoprobes for squamous cell carcinoma: A step towards developing a rapid tool for margin clearance, Neetu Singh, DBT, 3 years, 2018-2021, Rs 118 lakhs

7. National centre for technology in family welfare (RP03635G), Dinesh Kalyanasundaram, ICMR, 5 years, 2019-2024, Rs 106.7 lakhs

8. Naturally derived vesicles for targeted drug delivery, Neetu Singh, DBT, 1 year, 2018-2019, Rs 40 lakhs


10. Nucleic acid based portable rapid diagnostic platform (RP03513G), Dinesh Kalyanasundaram, BIRAC, DBT, 1.5 years, 2018-2019, Rs 40.1 lakhs

11. Stanford India Biodesign Programme, Harpal Singh, DBT, 3 years, 2017-2020, Rs 150 lakhs

12. To define the anti-tumor activity of Salinomycin-encapsulated biodegradable polymeric nanoparticles and its potential synergy with certain chemotherapeutic drugs or with anticancer peptides, Harpal Singh, DHR, 2 years, 2018-2020, Rs 56.7 lakhs

PUBLICATIONS

Journals: 36

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Faculty

Dr Amit Mehndiratta and Dr Anup Singh have been awarded with E.K. Zavoisky Award by International Society of Magnetic Resonance in Medicine (ISMRM) and ESMRMB at Paris, France on 16 June 2018.

Dr Deepak Joshi received Teaching Excellence Award on 5 September 2018 (Teachers Day) at IIT Delhi.

Dr Neetu Singh received Veena Arora Faculty Research Award on 28 January 2019 at IIT Delhi.

Students

Neha Singh received the Erricson Innovation Award 2018 in the area of Biomedical Engineering in Sweden on 18 December 2018.

Esha Baidya received the 3rd Best Poster Award in the area of Health Care for all on Industry Day, IIT Delhi on 22 September 2018.

Asutosh Tiwari received First Prize in Health Care Technology Category, Industry Day, IIT Delhi on 22 September 2018.

Asutosh Tiwari received Second Prize in Innovative Ideas and Patent Category in the area of Neuromechanics, Biomedical Engineering, NBRCom—AIIMS Rishikesh on 15 October 2018.

VISITING SCIENTISTS

1. Professor Sergei Eremin from Moscow State University visited the centre on 8 July 2018 and delivered a lecture on Immunodiagnostics

2. Professor SV Eswaran from TERI University visited the centre on 4 December 2018.
## HIGHLIGHTS

During the period under report, the Department of Biophysics had over 25 ongoing research projects funded by extramural grants. Research in the Department of Biophysics is concerned with determining the molecular basis of biological process, rational structure based drug design and discovering new specific biomarkers. The department provides facilities for data collection on protein and small molecule crystals, medical bioinformatics, protein sequencing and peptide synthesis, proteomics and dynamic light scattering. The department had received a Fund for Improvement of Science and Technology Infrastructure in Higher Educational Institutions (FIST) grant from Department of Science and Technology (DST), Government of India, which has been ongoing in the last year. In the past year, faculty and scientists had 28 research publications in various peer reviewed journals. The department continued providing postgraduate education and short and long-term training to MSc, PhD and MD students. The faculty members and scientists were invited to deliver lectures and seminars all over the country and have delivered 46 lectures.

## EDUCATION

### Postgraduate

The faculty and scientists of the Department of Biophysics continued with teaching and guiding students for PhD degree, MSc (Biophysics) and MD (Biophysics). The postgraduate teaching includes theory classes, hands-on practical classes and a dissertation project.

### Short and Long Term Training

The department also imparted long- and short-term training to MSc and MTech students from different institutes and universities.

### CMEs, National and International conferences

#### Lectures delivered

**TP Singh**

1. Exploitation of innate immune proteins as the protein antibiotics (Keynote address), Summer School on Drug Discovery and Development, 20-21 June 2018, Tanjavur
2. Applications of Peptidoglycan recognition proteins of the innate immune system as the protein antibiotics (Plenary talk), National Seminar on Crystallography (NSC-46), 27-29 June 2018, Bangalore

<table>
<thead>
<tr>
<th>INSA Senior Scientist</th>
<th>TP Singh</th>
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<tr>
<td><strong>Professor and Head</strong></td>
<td>Punit Kaur</td>
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<td><strong>Professors</strong></td>
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<td>Savita Yadav</td>
<td>Sujata Sharma</td>
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<td><strong>Associate Professors</strong></td>
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<td>G Hariprasad Rao</td>
<td>Sharmishtha Dey</td>
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<td><strong>Assistant Professors</strong></td>
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<td>Ethayathulla AS</td>
<td>Krishna Kumar Inampudi</td>
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<td><strong>Scientists</strong></td>
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<tr>
<td>Asha Bhushan</td>
<td>S Baskar Singh</td>
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<td>Manoj Kumar</td>
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4. Innate immunity and role of innate immune proteins as protein antibiotics (Keynote Address), International Conference on Biotechnological Innovation and Sustainable Development (BioSD-2018), 22-26 November 2018, Hyderabad
5. Protein structure and drug discovery and protein antibiotics, IMS-Chintan, 30 November 2018, Varanasi
6. Applications of innate immune proteins as protein antibiotics (Plenary Lecture), International Conference on Future Diagnostic, Therapeutic and Theragnostic Modalities, 29-31 December 2018, Aligarh
7. Protein antibiotics as new generation weapons against invading microbes (Plenary talk), World Congress on Nanomedical Sciences as part of ISNSCON-2018 and CBISNF-2019, 7-10 January 2019, New Delhi
10. Protein antibiotics as new generation weapons against bacterial targets (Plenary talk), International Conference on Advanced Chemical and Structural Biology (ICACSB-2019), 19-20 February 2019, Chennai
11. Protein Structure and Drug Discovery, Science Day Lecture in CCS-Hisar Agricultural University, 28 February 2019, Hisar
13. Structures of innate immune proteins and their exploitation as protein antibiotics (Inaugural keynote lecture), Recent Advancements in Biochemical Engineering and Biotechnology (RABEB-2019), 15 March 2019, Varanasi
14. Protein antibiotics as the new generation weapons against microbes, Workshop on Agriculture, Health and Society, 16 March 2019, New Delhi
15. Innate immune proteins as new generation weapons against infecting microbes (Plenary inaugural talk), Emerging Trends in Disease Model Systems, 25 March 2019, Pune
16. Drug development during pre-antibiotics, antibiotics and current antibiotics era (Inaugural lecture), National Seminar on Biotechnology in India: Current Status and Future Perspectives, 27 March 2019, New Delhi

Punit Kaur
1. Sequence based identification of resistance mechanism in Salmonella Typhi clinical isolates from Northern India, International Conference on Health Sciences, 7-9 October 2018, Colombo, Sri Lanka
2. The significance of C-terminal domain in DNA Gyrase A of S. Typhi, International Conference on Advanced Chemical and Structural Biology, 19-21 February 2019, Chennai

Savita Yadav
2. Protein-Protein interactions in seminal plasma and their clinical implications, International Symposium on Integrative Approaches in Life Sciences, 15 February 2019, New Delhi
3. Developing non-invasive ovarian cancer screening method based on differential saliva proteomics, Deliberations on translation of basic scientific insights into affordable healthcare products, 26 February 2018, Trivandrum
4. Differential proteomic approach to Asthenozoospermia: Journey towards a molecular marker, National conference on recent development in Biomedical, Unani and Ayurvedic Translational Research, 11 March 2019, Aligarh

Hariprasad G
1. Proteomics as a platform for personalized medicine, Refresher Course in Basic Science (Interdisciplinary), 18 October 2018, New Delhi
2. Clinical proteomics for translational research, Advanced Bio-Analytical Techniques from Method Development to Data Interpretation, 18 December 2018, New Delhi
3. Clinical proteomics as a futuristic tool for personalized medicine, Bioinformatics training for Teachers and Research scholars and from North East, 8 February 2018, Mumbai
Sharmistha Dey
1. Current research in Biomarkers of Ageing, Indian Academy of Geriatric, Research Methodology Workshop, 18 August 2018, Jodhpur
2. Biomarkers of Alzheimer’s Disease, International Conference on Neuroscience, 29 October 2018, Varanasi

AS Ethayathulla

KK Inampudi
1. Synthesizing the stable peptidyl-tRNA using tRNA adenyl transferase and flexizyme technology to study the catalytic mechanism of peptidyl tRNA hydrolase, Biological Engineering Society India Conference, 26-27 October 2018, Mumbai

Saroj Kumar
1. Infrared imaging a potential tool for biodiagnosis, Berzelii Technology, Excellence Centre for Neurodegenration, 23-26 April 2018, Uppsala, Sweden
2. Change in the microenvironment of breast cancer studied by microspectroscopy, 14th Indo-Australian Biotechnology Conference, 22-23 October 2018, Mumbai

Jyotirmoy Banerjee
1. Understanding Epilepsy, A Network Disorder: Cellular Electrophysiological Approach, Summer Undergraduate Research Programme (SURP), Dr BR Ambedkar Center for Biomedical Research (ACBR), University of Delhi, 8 June 2018, New Delhi
2. Differential GABAA receptor-mediated synaptic transmission revealed distinct epileptogenic network patterns in paediatric and adult patients with Focal Cortical Dysplasia (FCD), Indian Academy of Neurology (IAN) Conference (IANCON-2018), 27-30 September 2018, Raipur
3. Training and demonstration of patch-clamp technique, IBRO-APRC School, Department of Physiology, AIIMS, New Delhi, 21 October-4 November 2018, New Delhi
4. Understanding epileptogenic networks at a cellular level, 15th National EEG and Epilepsy Neurobiology Workshop and Master-class for Epilepsy Surgery, 21-23 November 2018, Banaras Hindu University, Varanasi
5. Understanding Abnormal Synaptic Transmission Associated with Epilepsy: Cellular Electrophysiological Approach, Department of Biomedical Science, Bhaskaracharya College of Applied Sciences (University of Delhi), 21 February 2019, New Delhi
7. Understanding network dynamics in Mesial Temporal Lobe Epilepsy (MTLE) at cellular level, One day Symposium on “Self-Organization in Biology”, 16 March 2019, Department of Biophysics, University of Delhi, South Campus, New Delhi

Manoj Kumar
1. Basics of Structure Modelling and Simulations, Mathematics in Biomedicine (INSA), 10 March 2019, New Delhi

Uddipan Das

Oral Papers/Posters presented
1. Das U, Structural insights into the substrate binding mechanism of novel ArgA from Mycobacterium tuberculosis, CCP4 Crystallography School and Workshop, 22-25 October 2018, Chandigarh
2. Dey S, Current research in Biomarkers of Ageing, Indian Academy of Geriatric, Research Methodology Workshop, 18 August 2018, Jodhpur

3. Dey S, Dixit A, Tripathi M, Chandra PS, Banerjee J, Role of kynurenic acid in modulation of glutamate receptor mediated hyperexcitability associated with hippocampal sclerosis, 1st Annual Research Day, All India Institute of Medical Sciences, 25-26 March 2019, New Delhi

4. Dey S, Dixit A, Tripathi M, Chandra PS, Banerjee J, Role of pyridoxal phosphate in modulation of endogenous kynurenic acid synthesis associated with hippocampal sclerosis, 20th Joint conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi

5. Dey S, Shekhar S, Yadav Y, Dey AB, Biomarkers of Alzheimer’s Disease, International conference on neuroscience, 4 June 2017, Varanasi

6. Kaur P, Katiyar A, Shared molecular signatures reveal probable links between Endometriosis and Multiple Sclerosis, 17th European Conference on Computational Biology, 8-12 September 2018, Athens, Greece

7. Kumar K, Dixit A, Tripathi M, Chandra PS, Banerjee J, Differential GABA receptor subunit levels in resected brain specimens obtained from low grade glioma patients with and without epileptic seizures, 20th Joint conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi


17. Vashist N, Sharma S, Tyagi JS, Kumar M, Identification of inhibitor of a key dormancy regulator DevR of Mycobacterium tuberculosis among FDA approved drugs, 1st Annual Research Day, All India Institute of Medical Sciences, 26 March 2019, New Delhi


RESEARCH
Funded projects

Ongoing

1. Structural studies of Peptidoglycan Recognition Proteins (PRPs), Peptidyl tRNA-hydrolase, Dihydrodipicolinate Synthase (DHDPS), Dihydrodipicolinate Reducatase (DHDPR) and Phospholipase A2, TP Singh, Indian National Science Academy, 5 years, 2014-2019, Rs 25 lakhs
2. Structure based design and synthesis of novel antitumor heteroareneanthracenediones, Punit Kaur, DST-RFBR, 2 years, 2017-2019, Rs 24.4 lakhs
3. AMR-Diag: A Novel Diagnostic Tool for Sequence Based Prediction of Antimicrobial Resistance, Punit Kaur, ICMR (Indo-Norway), 3 years, 2018-2021, Rs 136 lakhs (first year)
4. Characterization of silk fibroin film prepared from oak tasar (Antheraea proylei) cocoon for potential biomaterial applications, Punit Kaur, DBT-NER, 3 years, 2018-2021, Rs 29.67 lakhs
5. Development of novel and efficient carbohydrate enzymes for bioenergy and biovalued products, Punit Kaur, DBT-NER, 3 years, 2018-2021, Rs 23.99 lakhs
6. Effect of Non-Ionizing Electromagnetic Field (EMF) on human health, Savita Yadav, ICMR, 5 years, 2017-2022, Rs 61 lakhs
7. Exploring the role of proteomic signature in saliva: Step towards non-invasive diagnostic tool for ovarian cancer, Savita Yadav, ICMR, 3 years, 2016-2019, Rs 36 lakhs
8. Rational structure-based ligand design for developing the novel antibacterial agents against Peptidyl tRNA-hydrolase, a drug target from the multidrug resistant bacteria, *Acintobacter baumannii*, Sujata Sharma, ICMR, 3 years, 2017-2020, Rs 68 lakhs
10. Evaluation of serum sirtuin level and their correlation with tubulins, synuclein oligomers in Parkinson Disease, Sharmistha Dey, DBT, 3 years, 2016-2019, Rs 30 lakhs
11. Mechanistic details of 5-LOX inhibitor on activation of PIK3/Akt Signaling pathway in Alzheimer’s Disease, Sharmistha Dey, AIIMS, 2 years, 2017-2020, Rs 10 lakhs
12. Design and evaluation of novel peptide inhibitor as an anti-Parkinson’s Disease agent targeting Sirtuin 2, Sharmistha Dey, CSIR, 3 years, 2018-2020, Rs 34 lakhs
13. Structural and biophysical characterization of bacterial cell division protein FtsZ from Salmonella enterica: Antimicrobial drug target, AS Ethayathulla, DST, 3 years, 2016 -2019, Rs 33 lakhs
14. Biophysical and structural characterization of curcumin as a potential ligand to restore p53 Y220 mutant function in human cancer, AS Ethayathulla, AIIMS, 2 years, 2017-2019, Rs 9.8 lakhs
15. Structural and functional characterization of translational rescue system by Peptidyl tRNA hydrolase by forming non-hydrolysable peptidyl tRNA complex to gain insights for drug development against tuberculosis, Krishna K Inampudi, DST, 4 years, 2017-2020, Rs 50 lakhs
16. Characterization of fibroblasts to understand the possible role in breast cancer progression by FTIR imaging, Saroj Kumar, AIIMS, 2 years, 2017-2019, Rs 9.8 lakhs
17. Elucidating region specific alterations of glutamatergic excitatory neurotransmission in a rodent pilocarpine model of temporal lobe epilepsy, Jyotirmoy Banerjee, DBT, 3 years, 2018-2021, Rs 61 lakhs
18. To investigate the role of dysfunctional benzodiazepine binding site on GABAA receptor in benzodiazepine-resistance associated with pharmaco-resistant epilepsy, Jyotirmoy Banerjee, Office of Principal Scientific Adviser to Government of India under the project “Advanced Epilepsy Research: A Multidisciplinary Approach”, 3 years, 2018-2021, Rs 136.75 lakhs
19. Investigating the role of metabolites and neurotransmitters in abnormal synaptic transmission associated with Mesial Temporal Lobe Epilepsy (MTLE) and Focal Cortical Dysplasia (FCD): Possible biomarkers for localization of epileptogenic foci, Jyotirmoy Banerjee, DBT, under the project “Centre of Excellence for Epilepsy Research Phase-II”, 3 years, 2018-2021, Rs 168.20 lakhs
20. Effect of plasma jet on tumor tissues resected from patients with tumor linked refractory epilepsy, Jyotirmoy Banerjee, Board of Research in Nuclear Sciences, Department of Atomic Energy (DAE), Government of India, 3 years, 2018-2021, Rs 33.23 lakhs
21. Role of a7 and a4β2 subtypes of nicotinic receptors in abnormal synaptic transmission associated with hippocampal sclerosis, Jyotirmoy Banerjee, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
22. Identification of lead compounds against a novel drug target shikimate kinase for the development of anti-TB drug to combat multi-drug resistance, Manoj Kumar, AIIMS, 2 years, 2017-2019, Rs 9.6 lakhs
23. Structural characterization of Sulfate Activation Complex from *Mycobacterium tuberculosis*, Uddipan Das, AIIMS, 2 years, 2017-2019, Rs 8 lakhs
24. Comparative proteomics analysis to identify potent biomarkers during the transformation of premalignant oral conditions to malignant oral squamous cell carcinoma, S Baskar Singh, DST, 3 years, 2019-2021, Rs 43 lakhs

**Completed**

1. Fund for improvement of S&T infrastructure in universities and higher educational institutions, Punit Kaur, DST, 6 years, 2012-2018, Rs 300 lakhs
2. Development of Pan-Genome and knowledge-based Identification of Novel Drug targets for typhoidal *Salmonella enterica*—A genomic approach to drug discovery, Punit Kaur, ICMR, 3 years, 2015-2018, Rs 52.7 lakhs
3. Bio-Medical Informatics Facility at AIIMS, Punit Kaur, ICMR, 5 years, 2013-2018, Rs 100 lakhs
4. AMIR-PepKit IVD: R&D of a peptide-based-diagnostic kit for an early detection of a fatal immune response in acute myocardial infarction patients, Savita Yadav, CEFIPRA-BIRAC, 2 years, 2016-2018, Rs 39 lakhs
5. Validation of salivary proteomic markers for early detection of cervical cancer, Savita Yadav, AIIMS, 2 years, 2016-2018, Rs 7.2 lakhs
6. Proteomics of CSF for the identification of protein signatures in the dopamine dictated states of Schizophrenia and Parkinson’s Disease, Hariprasad G, DST, 3 years, 2014-2018, Rs 31 lakhs
7. Potential anti-oxidant effect of selected Ayurvedic herbs in Parkinson and Alzheimer’s Disease, Sharmistha Dey, AYUSH, 3 years, 2015-2018, Rs 35 lakhs
8. Study of possibility of the Hypoxia inducible protein (Hi95) as potential protein marker for Alzheimer’s Diseases, Sharmistha Dey, AIIMS, 2 years, 2016-2018, Rs 10 lakhs

**Departmental projects**

**Ongoing**

1. Development of antimicrobial molecules against the drug resistant proteins from S. typhi
2. Structural characterization of the Mur pathway proteins
3. Genome analysis and target identification against S. typhi
4. Structural and biophysical characterization of DNA Gyrase and its domains from S. typhi
5. Intervention of non-classical class I human leukocyte antigen G in HNSCC and its therapeutic implications
6. Study on circulating level of inflammatory proteins, their signalling cascade in metastatic breast cancer and therapeutic implications for the same
7. Role of Sestrin in Neurodegenerative diseases and its therapeutic implication
8. Study of potential modulators targeting pathways involved in hyperphosphorylation of Tau
9. Analysis of Anti-neurotoxicity of Amyloid Beta (Aβ) in Alzheimer’s Disease (AD) pathology targeting Lipoxygenases
10. Structural and Functional Studies of FtsZ cell division protein as a potential drug target against *Salmonella Typhi*
11. Computational analysis of resistance to imatinib and related drugs in CML due to mutations in BCR-Abl kinase and design of mutation resilient inhibitors
12. Structural and functional characterization of translational rescue system by Peptidyl tRNA hydrolase by forming non-hydrolysable peptidyltRNA complex to gain insights for drug development against tuberculosis
13. Functional characterization of EGFR Tyrosine Kinase Mutants and Identification of Novel Drug leads to target NSCLCs
14. Identification of DNA Aptamers against human sEGFR to treat lung cancer
15. Biomarker based understanding of Parkinson’s Disease pathogenesis by using proteomic and lipidomic profiling of blood, urine and saliva
16. The unstructured proteins in biological structures: Case of human tooth
17. Characterization of fibroblasts to understand the possible role in breast cancer progression by FTIR imaging
18. Elucidate the role of Semaphorin in epileptogenesis and hyperexcitability associated with temporal lobe epilepsy
19. Elucidating the role of cytosolic phospholipase A2 in mesial temporal lobe epilepsy
20. Biophysical characterization of the ATPase domain of SugABC transporter from Mycobacterium Tuberculosis
21. Computational analysis of resistance to imatinib and related drugs in CML due to mutations in BCR-Abl kinase and design of mutation resilient inhibitors
22. Peptide inhibitor designing for sEGFR using computational protein design

**Completed**

1. Development of a protein marker for Parkinson Disease and design of peptide inhibitor for the same
2. Evaluation of cell signaling molecules as serum protein marker in Head and Neck Squamous Cell Carcinoma (HNSCC) and Non Small Cell Lung Cancer (NSCLC) proposing therapeutic target
3. Structural and Biophysical Characterization of p53 Y220 Mutant
4. Biophysical studies of bacterial cell division protein FtsZ with its natural inhibitors: SulA and MinC
5. Functional Studies of p53 Wild Type and Mutant Y220C in Human p53 Null Cell Line
6. Peptide inhibitor designing and validation for sEGFR using computational Protein design
7. Characterization of Serine Racemase inhibition by medicinal plants extract
8. The structural analysis of a glutamate acetyl transferase from Mycobacterium tuberculosis
9. Structural studies of ArgA protein from *Mycobacterium tuberculosis*
10. Identification of inhibitors for Malate synthase of Mycobacterium tuberculosis to target Latent TB Infection
11. Identification of potential inhibitors of DevR among FDA approved drugs

**Collaborative projects**

**Ongoing**

1. Identification of Novel targets and development of Inhibitors against S. typhi, Microbiology
2. Harmonized Diagnostic Assessment of Dementia (DAD) for Longitudinal Aging Study of India (LASI), Geriatric Medicine
3. Development of a protein marker for Parkinson Disease and design of peptide inhibitor for the same, Geriatric Medicine
4. Structure-based design of nanobody inhibitors against EGFR: A Protein engineering approach to develop novel therapeutics for lung cancer, Life Sciences, Shiv Nadar University; Center for Computational Biology and Bioinformatics, Central University of Himachal Pradesh; Pulmonary Medicine and Sleep Disorders, AIIMS, New Delhi
5. A nanomedicine approach against drug-resistant EGFR kinase for the treatment of EGFR positive tumors, Pulmonary Medicine and Sleep Disorders, AIIMS, New Delhi; Department of Chemistry, IIT Delhi; Department of Biochemistry, Microbiology and Immunology, University of Ottawa, Canada
6. Targeting drug resistant tumor harboring mutant EGFRs: A next generation molecular approach for the treatment of Non-Small Cell Lung Cancer, Department of Chemistry, IIT Delhi; Pulmonary Medicine and Sleep Disorders, AIIMS, New Delhi
7. Role of Inhibitors of Apoptosis Proteins in Gastroenteropancreatic Neuroendocrine Tumors, Anatomy
8. Development of early detection technique for Parkinsons Disease, Neurology
9. Role of kynurenic acid, a glutamate receptor inhibitor, in hyperexcitability associated with mesial temporal lobe epilepsy (MTLE), Neurosurgery
10. Deciphering the role of casein kinase 2 in mesial temporal lobe epilepsy, Neurosurgery
11. Deciphering the role of GABAA receptor alterations in pediatric and adult patients with focal cortical dysplasia, Neurosurgery
12. Deciphering the role of ATF3 and TGFβ signaling in Mesial Temporal lobe Epilepsy (MTLE) patients, Neurology
13. Evaluation of perimplant crevicular fluid metalloproteinase-8 (MMP-8) and cathepsin-k (CTSK) levels in immediate loaded and delayed loaded dental implants, Centre of Dental Education and Research

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Completed

1. Evaluation of novel intracellular proteins in serum as marker of ageing, Geriatric Medicine
2. Centre of Excellence for Epilepsy Research Phase-I, funded by Department of Biotechnology (DBT), National Brain Research Centre (NBRC), Manesar
3. Deciphering the role of Histone Deacetylases (HDACs) in Mesial temporal lobe epilepsy, AIIMS, Intramural Research Grant, Neurosurgery
4. Deciphering the role of the multifaceted kinase CDK5 in intractable epilepsy funded by Department of Biotechnology (DBT), National Brain Research Centre (NBRC), Manesar

PUBLICATIONS

Journals: 16  Abstracts: 1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor TP Singh selected as a SERB Distinguished Fellow; Elected as President of Biotech. Research Society for a period of 2019-2021; Appointed as a member of Executive Council of Central University, Sagar for period of 2019-2021; Appointed as a member of the Board of Governors of Institute of Medical Sciences-BHU, Varanasi for a period of 2018-2022; Current Elected President of Bioinformatics and Drug Discovery Society for a period of 2018-2020.

Professor Savita Yadav received Professor S S Guraya Memorial Oration award by Indian society for the study of reproduction and fertility; Received AIIMS Oncology Research Award (Third Prize).

Dr Sharmistha Dey received AIIMS Excellence Research award, AIIMS, New Delhi; Received International Fellowship for Biomedical Scientist, Indian Council of Medical Research.

Dr Krishna Kumar Inampudi received First Prize in one session.

Dr Saroj Kumar received Second Prize in of Quiz competition on “Sample preparation, Mass spectrometry and data analysis” at Proteomics Workshop at IIT Bombay.

Dr Jyotirmoyi Banerjee received Best Paper Award under Basic Neuroscience category at Indian Academy of Neurology (IAN) conference (IANCON 2018) held at Raipur, September 2018; Teaching Membrane Biophysics course to first year PhD and Integrated MSc-PhD students at National Brain Research Center (NBRC), Manesar; Member committee of re-formulation of recruitment rules of research positions for Research Section, AIIMS, New Delhi; Member committee of Public Awareness of Research Activities at AIIMS, New Delhi; Member committee of poster judging committee for 1st Annual Research Day, AIIMS, New Delhi; Organizing Secretary, 15th National EEG and Epilepsy Neurobiology Workshop and Master-class for Epilepsy Surgery, 21-23 November 2018, Banaras Hindu University, Varanasi.

VISITING SCIENTISTS

Following noted scientists and eminent academicians have visited the department for presenting lectures and scientific cooperation in the past year:

1. Dr R Ahmad, Norway
2. Dr R Batra-Safferling, Germany
3. Dr B Gopal, Bangalore
4. Dr D Velmurugan, Chennai
5. Dr Ashish Arora, Lucknow
6. Dr Hefazat Siddiqui, Lucknow
7. Dr Ajay Saxena, New Delhi
8. Dr Sonika Bhatnagar, New Delhi
HIGHLIGHTS
Department conducted three hands on workshop on various aspects of biostatistics for faculty/residents and PhD students in the institute. Faculty and Scientist had 123 ongoing collaborative research projects and 36 completed collaborative research projects with various centers/departments in the institute. Departmental research projects include three ongoing extramural funded research projects and one completed project. Faculty and scientist in the department had 80 research publications in various peers reviewed medical journals; continued to be reviewer for almost all the major medical journals in the country and for several International Medical Journals from various medical specialties; served on various administrative and scientific committees in the institute; invited members of various scientific committees of the ICMR, DBT, DST, AYUSH; served on Data Safety Monitoring Boards (DSMB) of several National and International Clinical Trials; delivered invited lectures in various institutes/universities in the country; and, served as examiners for PhD thesis submitted to various universities in the country.

EDUCATION
The department continued teaching “Biostatistics and Essentials of Research Methods” for the undergraduate, paramedical and postgraduate courses, viz. MBBS, BSc (Hons.) in Medical Technology in Radiology, M Biotech, BSc and MSc Nursing, and MD Community Medicine. Department plays major role in conducting Research Methodology, Writing and Communication workshops for the residents in the institute, a mandatory five days course work. On request, faculty members delivered series of lectures for the residents, PhD students and participated in departmental scientific presentations in various centres/departments in the institute. Besides guiding PhD students in the department, faculty members and scientists contributed to the academic activities of other departments in the institute as Co-Guides, DC Members of PhD, DM, MCH, MD/MS, students. Also, departmental faculty and scientists delivered 46 invited lectures in various workshops on Research Methodology and Biostatistics in various national workshops/conferences across the country.

CMEs, National and International conferences
Lectures delivered
RM Pandey
1. Determination of sample size for various study designs, Zonal Operations Research Workshop of RNTCP, 1 April 2018, Manali
2. Essential statistical analysis in clinical research, Zonal Operations Research Workshop of RNTCP, 2 April 2018, Manali
3. Design, conduct and analysis of clinical trials, principles and practice of clinical research, 16-20 April 2018, Hyderabad
4. Study designs in health research, Organization and Ethics of Biomedical Research, 1 June 2018, Jabalpur
5. Sample size determination for clinical trials, Seminar on Clinical Trials at THSTI, DBT, 9 June 2018, Faridabad
6. Statistical analysis of clinical trial, Seminar on Clinical Trials at THSTI, DBT, 9 June 2018, Faridabad
7. Essentials of statistical analysis in clinical research, National Symposium on Medical Writing and Clinical Research, 24 July 2018, Coimbatore
8. Sample size determination for health research studies, Research Methodology at Gauhati Medical College, 4 September 2018, Guwahati
9. Inferential statistical methods of data analysis, Research Methodology Workshop at Govt Medical College, 18-19 September 2018, Srinagar
10. Approaches for doing health research, Rajasthan Conclave-6, 20-21 October 2018, Jodhpur
12. Determination of sample size in Health Research, Annual Meeting of UP Chapter of Obstetrics and Gynaecology, 15 November 2018, Allahabad
13. Statistical aspects in Clinical Trial, Workshop on Research Methods, 20 November 2018, Chandigarh
14. Statistical methods in Medical Research, Faculty Development Programme, 18-19 November 2018, Thiruvananthapuram
15. Essential statistical methods in Tuberculosis Research, State Level Workshop to Promote Research in Tuberculosis, 14 March 2019, Lucknow
16. Statistical inference methods, Research Methodology Workshop for Physicians in Critical Care Medicine, 17 March 2019, Pune

SN Dwivedi

1. Methodology section: Selection of participants, bias and confounding, association and causation, Clinical and Biological Research in Orthodontics, 23 April 2018, AIIMS, New Delhi
2. Sampling and sample size determination, Training Course on Data Analysis using Statistical Software for Health and Demographic Research, 13 September 2018, NIHFW, New Delhi
4. Statistics for clinicians, Evidence Based Medicine Conference 2019 of Society for Evidence based Health Care, 2-4 January 2019, KMC, Manipal
5. Sampling and sample size determination, Training course on Demographic Data Analysis for Health Personnel, 11 February 2019, NIHFW, New Delhi

V Sreenivas

1. Development of study proformae, data management and descriptive statistics, Clinical and Biological Research in Orthodontics, 23 April 2018, New Delhi
2. Questions in Biostatistics and Data Entry Guidelines, Sample size estimation and criteria for causation, Research methods workshop for Faculty, 29 June 2018, Bhubaneswar
3. Correlation, Regression and Survival Analysis, Research methods workshop for Biomedical Scientists, 2 August 2018, Noida
4. Design of trials and experimental studies, Research methods workshop for Medical Faculty and Scientists, 4 December 2018, New Delhi

Maroof A Khan

1. Biostatistics and its role in Unani Medicine, CME Programme for Teachers, 23 October 2018, Aligarh

M Kalaivani

1. Principles of Biostatistics, Research Methodology, 28 July 2018, New Delhi
2. Statistical Analysis Using Stata, Programme on Research Methodology, 22 February 2018, New Delhi

Oral papers/posters presented

RESEARCH

Funded projects

**Ongoing**

1. Air pollution and its effects on health: 20 multi site study, RM Pandey, Ministry of Environment, Forest and Climate Change, Government of India, 3 years, October 2018 to October 2021, Rs 26.40 lakhs

2. The effect of geographical health inequalities on under five child mortality in India, Maroof A Khan, DST, 3 years, 2017-2020, Rs 15.93 lakhs

3. Multicentric trial to study the effect of early active mobilization as compared to three weeks immobilization following tendon transfer procedures for claw hand (Data coordination and study monitoring), V Sreenivas, ICMR, New Delhi, 5 years, August 2015 to August 2020, Rs 21.22 lakhs

4. Chron’s Disease in India: A multi-center study from a country where intestinal tuberculosis as well as Johne’s Disease is endemic (Data coordination and study monitoring), V Sreenivas, Department of Health Research, Government of India, 3½ years, March 2016 to August 2019, Rs 27.99 lakhs

**Departmental projects**

**Ongoing**

1. Pattern and Associated Factors of Lymph Node Involvement and Local Recurrence among Oral Cancer Patients: Biostatistical Considerations

**Completed**

1. Comparison of a statistical models for recurrent exacerbations and long-term control asthma in children in Northern India

2. Comparative Appraisal of Data Collection Methods and Related Epidemiological Models for Smoking, Drinking and Tobacco Chewing among Adolescent Children in India

3. Competing Risk Survival Models as well as Systematic Review and Meta-Analyses to Assess the Effectiveness of Neo-adjuvant Chemotherapy in Treatment of Breast Cancer Patients

**Collaborative**

**Ongoing**

1. Study of Oligodendroglial Linage, Myelination and Remyelination in Brain Tissue in Head Injury Cases, Division of Forensic and Molecular DNA, JPNATC

2. Fat Gain Trajectory from Birth to 6 months in Healthy Infants, and its Effect on Serum Insulin, IGF-1 and Adiponectin at 2 years of Age, Paediatrics

3. Evaluation of Technological solutions for Conduct and Capture of Narratives in Verbal Autopsy based cases of Death Ascertainment Systems, Center for Community Medicine

4. Cysteine Cathepsins in Acute Lymphoblastic Leukemia: Implication(s) in Prognosis and Therapeutics, Biochemistry

5. A Study to Explore Protein and Gene Expression of PCSK9 in LDL Stratified and Prakriti Stratified Patients of Coronary Artery Disease in India, Pharmacology

6. A Study on Regulation, Immunomodulatory and Cellular Functions of Dipeptidyl Peptidase III Colon Cancer, Biochemistry

7. A Population Based Prospective Cohort Study to Unravel the Causes of Stroke and Cognitive Decline: A Cross-Cultural Perspective, Neurology

8. Role of Fluoride Toxicity on Renal Pathogenesis in Childhood Nephrotic Syndrom: An Ultra structural, Biochemical and Proteomic Study, Anatomy

9. Role of hydrogen sulphide on migration of human trophoblast cells, Anatomy


11. Study of potential modulator targeting pathways involved in the hyperphosphorylation of tau in Alzheimer Disease, Biophysics

12. Development of serum protein marker and study of antioxidative effect using potential modulator for Alzheimer’s Disease, Biophysics

13. Interventions of human leukocyte Antigen-G in HNSCC and its therapeutic implications, Biophysics

14. Analysis of Anti-neurotoxicity of Amyloid Beta (Ab) in Alzheimer’s Disease (AD) pathology targeting Lipoxygenases, Biophysics
15. Study on circulating level of inflammatory proteins, their signaling cascade in metastatic breast cancer and therapeutic implications for the same, Biophysics
16. Efficacy of yoga based cardiac rehabilitation in Post-PCI patients: A prospective randomized, open-label, blinded end-point trial, Cardiology
17. Effect of structured Yoga Programme on Stress and Professional Quality of Life among selected nursing staff in a tertiary care hospital of Delhi, A small scale phase-2 trial, Centre for Community Medicine
18. Comparison of post extraction bleeding complication in patients taking oral anticoagulants, with and without bridging therapy: A pilot study, Dentistry
19. Q-sofa score as a predictor of 7 and 28 days outcome in patients with suspected infection presenting to Emergency Department, Emergency Medicine
20. To study the role of point of care ultrasound for carotid pulse check in cardiac arrest patients, Emergency Medicine
21. Gait and balance assessment in patients attending memory clinic, Geriatric Medicine
22. Comprehensive geriatric assessment of older adults attending fragility clinic in a tertiary health care setting in India, Geriatric Medicine
23. Harmonized Diagnostic Assessment of Dementia (DAD) for Longitudinal Aging Study of India (LASI), Geriatric Medicine
24. Impact of frailty and geriatric syndromes on outcome of major orthopedic surgery in older Indian, Geriatric Medicine
25. A randomized control study to evaluate the efficacy of scrambler therapy in the management of oncological pain in cancer patients, IRCH
26. Awareness and knowledge of Indian breast cancer patients pertaining to genetic aspect of breast cancer, IRCH
27. Efficacy of intensive dietary counseling on metabolic, anthropometric and ultrasound parameters among adult Indian Non-Alcoholic Fatty Liver Disease (NAFLD) patients: A Randomized Controlled Trial, Medicine
28. Biological and behavioral risk factors for obesity among outpatients and perceived barriers to weight loss among obese patients in a hospital based set-up, Medicine
29. Incidence, outcome and risk factors of paradoxical reaction in HIV negative lymph node tuberculosis, Medicine
30. Molecular characterization of Neisseria meningitides isolated from cases of acute bacterial meningitides in Delhi and adjoining area, Microbiology
31. Phenotypic and genotypic characterization of Non-Typeable Haemophilus influenza (NTHi) from North India, Microbiology
32. Study of cognition and quality of life in chronic intractable epilepsy using functional Magnetic Resonance Imaging (fMRI), Neurology
33. Investigation of role of trans cranial magnetic stimulation in Parkinson’s Disease, Neurology
34. Designing and validation of evidence based questionnaire in English and Hindi for a population based cohort study in India, Neurology
35. Prevalence and determinants of cerebral micro-bleeds in people aged 50 years and above residing in urban Delhi: A population based cross sectional study, Neurology
36. Prevalence of incidental findings on Brain MRI in adults aged 50 years and above: A population based cross-sectional study, Neurology
37. Association of Vascular Risk Factors, Brain MRI Measures, Cognition and Gait in Community Dwelling adults aged 50 years and above: A population based cross sectional study, Neurology
38. High dose dexamethasone for primary supratentorial intracerebral hemorrhage: A Pragmatic Parallel Group Open-Level Randomized Trial with Blinded Endpoint assessment (PRoBE), Neurology
39. Fever, hyperglycemia, swallowing and hypertension management in acute stroke: A cluster randomized controlled trial (Indian Quality Improvement in Stroke Care Study), Neurology
40. Identification of biomarkers in Parkinson’s Disease using NMR, NMR
41. Metabolomics study of prostate cancer by using NMR spectroscopy, NMR
42. Role of MR guided Biopsy in detection of Prostate Cancer, NMR
43. Role of magnetic resonance in assessing therapeutic efficacy of ayurvedic treatments, NMR
44. Study on cytogenetic toxicity of low dose 131I therapy in hyperthyroid patients by using micronuclei assay, Nuclear Medicine
45. Dosimetric studies in Radionuclide Therapy of Neuroendocrine Tumors with 177Lu DOTA-TATE, Nuclear Medicine
46. Therapeutic Efficacy of Abiraterone Acetate versus Concomitant 177Lu-DKFZ-PSMA-717 and Abiraterone Acetate therapy in patients with Metastatic Castration Resistant Prostate Cancer: Open Label, Two Arm, Phase II Trial, Nuclear Medicine

47. Assessment of the changes in quality of life and symptom burden in patients with pulmonary or airway related disease requiring pulmonary interventions, Prospective study, Onco-anesthesia and Palliative medicine

48. Detection of Minimal Residual Disease (MRD) in B-cell Lineage Acute Lymphoblastic Leukemia by Flow Cytometry at end of Induction, Paediatrics

49. A study of endothelial function and gene expression in healthy individuals, and their correlation with various somatotype classifications, Physiology

50. To study the role of vascular function and pain sensitivity in micro vascular angina, Physiology

51. Psychological Trauma Resilience in Children Adolescents: Development and Psychometric Properties of a Multidimensional Scale, Psychiatry

52. Biostatistical Aspects of Prognostic Factors including Molecular Parameters in Breast Cancer Patients: An Epidemiological Appraisal, Radiotherapy

53. Role of T-Regulatory cells (tregs) and their clinical correlation in epithelial ovarian cancer, Surgical Oncology

54. A Study of Chronic Respiratory Diseases and Associated Factors among Elderly Persons in a Rural Area of Haryana, Centre for Community Medicine

55. Effect of Resveratrol supplementation on cognitive function and Estrogen receptor profile in hypothalamus and hippocampus of arsenic trioxide-exposed adult female mice, Anatomy

56. Evaluation of the blood inventory management in a hospital based blood bank and evolution of strategy to minimize shortage and outdated of blood, Clinical Biochemistry

57. Role of sperm molecular factors in recurrent pregnancy loss, Anatomy

58. Effect of regional anesthesia on perioperative inflammatory cytokines alteration and clinical complications in orthopedic trauma surgery, Anaesthesiology and intensive care, JPNATC

59. Effect of curcumin on mice basal forebrain structures following arsenic trioxide exposure, Anatomy

60. Effect of Resveratrol supplementation on cognitive function and Estrogen receptor profile in hypothalamus and hippocampus of arsenic trioxide-exposed adult female mice, Anatomy

61. Mapping functional and biochemical correlates in brain of Parkinson’s patients with mild cognitive impairment, NMR and MRI facility

62. Evaluation of the blood inventory management in a hospital based blood bank and evolution of strategy to minimize shortage and outdated of blood, Clinical Biochemistry

63. Role of sperm molecular factors in recurrent pregnancy loss, Anatomy

64. Effect of regional anesthesia on perioperative inflammatory cytokines alteration and clinical complications in orthopedic trauma surgery, Anaesthesiology and intensive care (JPNATC)

65. Effect of curcumin on mice basal forebrain structures following arsenic trioxide exposure, Anatomy

66. The effect of candida and antifungal therapy on pro inflammatory cytokines in oral leukoplakia, A pilot study, CDER

67. Expression of selective neurotransmitters and neuropeptides in the spinal cord of morphine tolerant rats, Anatomy

68. Effects of pre- and post-natal exposure to fluoride on enteric nervous system, Anatomy

69. Role of TET2 protein in Myelodysplastic syndrome, Biochemistry

70. Role of TET2 proteins in pathogenesis of AML, Biochemistry

71. Economic Burden, Prevention and Control of Pneumonia among Elderly, Centre for Community Medicine

72. Strengthening/Promoting evidence based advocacy for influenza prevention and control in India (CDC Atlanta, 2018-2023), Centre for Community Medicine

73. Effect of Vitamin D supplementation on outcome in children undergoing open heart surgery: A randomized controlled trial, CTVS

74. Early Enteral feeding with supplemented mother’s milk in post-operative pediatric cardiac surgical patients, A randomized controlled trial, CTVS

75. A prospective split face randomized controlled study comparing injection of autologous fat alone versus autologous fat mixed with platelet rich plasma for age related facial volume deficit especially tear trough deformity; with isolation and characterization of adipose derived stem cells, Dermatology

76. Comparison of Efficacy of non-cultured extracted hair follicle root sheath cell suspension with noncultured epidermal cell suspension in repigmentation of leucotrichia in vitiligo, Dermatology

77. A descriptive study to classify periocular hyperpigmentation based on clinic-investigative profile, Dermatology
78. Estimation of epidermal ceramides in autosomal recessive congenital ichthyosis and its correlation with phenotype and genotype, Dermatology
79. Cross-sectional study to assess autonomic nervous system imbalance and its correlation with cutaneous manifestations in patients with systemic sclerosis, Dermatology
80. A pilot randomized controlled trial comparing the safety and efficacy of Cyclosporine and Dexamethasone in SJS, SJS-TEN overlap and TEN, Dermatology
81. Clinical, biochemical, hormonal familial characteristics and FTO gene variation in women with PCOS, with and without family history of type 2 Diabetes Mellitus, Endocrinology
82. Molecular insights into the complications of Idiopathic Hypoparathyroidism, Endocrinology
83. Exploration of autoimmune basis of Indian patients with Idiopathic hypoparathyroidism, Endocrinology
84. Unique features of Idiopathic Hypoparathyroidism, Endocrinology
85. Role of contrast enhanced ultrasound in the diagnosis of hepatocellular carcinoma in patients of cirrhosis and in the assessment of tumor response after percutaneous ablation, Gastroenterology
86. Role of micro RNAs as a biomarker in hepatocellular carcinoma, Gastroenterology
87. Assessment of liver fibrosis in patients with chronic liver disease using Transient elastography, Shear wave elastography and serum biochemical markers, Gastroenterology
88. Development and validation of a tool for assessment of adherence to gluten free diet in Indian Celiac disease patients, Gastroenterology
89. To study the diagnostic performance of presepsin in sepsis, A pilot study, Medicine
90. Psychiatric co-morbidities in TB/HIV co-infection, Medicine
91. Role of N-Terminal pro-BNP and cardiac Troponin-I as a biomarker to predict mortality in patients of sepsis, Medicine
92. Quality improvement of the invasive procedures routinely done in medicine ward, Medicine
93. Efficacy of Yoga on symptom severity and quality of life of patients suffering from pain predominant medically unexplained symptoms, Medicine
94. Gene expression profile and its correlation with mitochondrial energy metabolism in pediatric AML, Medical Oncology, IRCH
95. Pazopanib based combination therapy in Platinum resistant, Platinum Refractory and advanced Ovarian Cancer: A Randomized Phase 2 study, Medical Oncology, IRCH
96. Three arm phase II/III RCT in patients with unresectable or metastatic GBC with poor performance status by best supportive care vs Erlotinib vs capcitabine, Medical Oncology, IRCH
97. Stoppage of empirical antibiotic therapy at clinical recovery versus at neutrophil recovery, Medical Oncology, IRCH
98. Effectiveness of bundled intervention in surgical site infections among patients undergoing clean orthopedic surgery with hardware implants: A randomized control trial, Microbiology
99. Impact of early organism identification by MALDI TOF on antibiotic prescription pattern and clinical outcomes, Microbiology
100. Detection of Neisseria gonorrhea in genital and extra genital sites in men having sex with men (MSM), Microbiology
101. Development of a diagnostic panel of blood markers in the diagnosis and prognostication of acute ischemic stroke, Neurology
102. Genetic and clinical factors associated with aspirin resistance in Indian patients with Ischemic stroke, Neurology
103. Study on role of intensive physiotherapy and trans cranial magnetic stimulation (TMS) in stroke recovery and the correlation of growth factors with intervention and recovery, Neurology
104. Standardization of dynamic F-18 FDG PET/CT protocol and comparison of whole body F-18 FDG PET CT with whole body diffusion weighted MRI for early treatment response evaluation in non-small cell lung cancer, Nuclear Medicine
105. Understanding the BRB Transponder Functions and Evaluation of Aptamers in the Experimental Model of Uveitis, Ocular Pharmacology, Dr RP Center
106. Developing and validating QSPR model for enhanced penetration of drugs across blood ocular barriers, Ocular Pharmacology, Dr RP Center
107. Utility of a panel of surrogate immunohistochemical and molecular markers to classify human colorectal carcinomas according to the consensus molecular subtypes and clinical correlation, Pathology
108. Pharmacological modulation of inflammation in experimental model of Ischemia reperfusion injury in rat heart, Pharmacology
109. Development and validation of a questionnaire for assessing the medication adherence of hypertensive patients in India, Pharmacology
110. Randomized controlled trial to study the efficacy of exercises in early stage Parkinson’s Disease, Physical Medicine and Rehabilitation
111. Quantitative EEG correlates of Cognitive Deficits and Stress Reactivity in Mild Cognitive Impairment and Alzheimer’s Disease, Physiology
112. Transcriptomic study to elucidate the pathophysiological mechanisms in COPD, Physiology
113. Genomic expression and protein profile correlates of peripheral blood mononuclear cells in obesity after Yoga-based lifestyle intervention, Physiology
114. Effect of Angiotensin Converting Inhibitor on Autonomic, Vascular and Endothelial function in Type 2 Diabetes with newly diagnosed Hypertension, Physiology
115. Muscle regeneration after iron oxide nano-particle implantation and effect of magnetic field in complete spinal cord injury rat model, Physiology
116. Psycho-social correlates of caregiving experience among caregivers of patients with Schizophrenia, Psychiatry
117. Development of Psychological Intervention Manual for adolescents with dissociative conversion disorder, Psychiatry
118. Comparative evaluation of nasoenteric feeding and percutaneous radiologic gastrostomy for enteric support in patients with moderate and severe dysphagia due to neoplasms of oropharynx or esophagus: A pilot Randomized Controlled Trial, Radiodiagnosis and Imaging, IRCH
119. Pain score in Gall bladder cancer patients undergoing PTBD under TAP block vs without the TAP block, Radiodiagnosis and Imaging, IRCH
120. Role of interventional radiology in obstetric related hemorrhage, Radiodiagnosis
121. Evaluation of neck masses using diffusion weighted MR imaging and ultrasound elastography, Radiodiagnosis
122. Magnetic Resonance Imaging evaluation of adult traumatic brachial plexus injury, Radiodiagnosis
123. Dynamic MRI in evaluating upper airway in Obstructive Sleep Apnea Syndrome, Radiodiagnosis
124. Role of perfusion CT in evaluation of non-small cell lung carcinoma in patients undergoing chemotherapy, Radiodiagnosis
125. Role ultrasound guided wire localization of axillary lymph nodes in increasing the accuracy of sentinel lymph node biopsy after NACT in breast cancer, Radiodiagnosis

Completed

1. To study the alcohol production by microbes in blood and vitreous humor in human body and during storage of samples, Forensic Sciences
2. Study of orthostatic hypotension in older Indians, Geriatric Medicine
3. Study of cognition in frail older adults, Geriatric Medicine
4. Clinical biochemical and radiological profile in Mild Behavioral Impairment (MBI), Geriatric Medicine
5. Dosimetric study in children and young adults with Differentiated Thyroid Cancer undergoing radioiodine (131 I-Na) therapy, Nuclear Medicine
6. To study concept of professionalism in nursing, its correlates and prepare a model framework of curriculum in professionalism for nursing education, College of Nursing
7. Association of IKZF-1 gene alterations and Cytokine Receptor-Like Factor 2 (CRLF-2) Expression with prognostic parameters at presentation and response to induction chemotherapy in Indian Children with Acute Lymphoblastic Leukemia (ALL), Paediatrics
8. A study to evaluate the efficacy of supervised exercise training programme in patients of peripheral artery disease of lower limbs and evaluate their quality of life, Surgical Disciplines
9. Randomized controlled trial to compare efficacy of injection benjathine penicillin, upper limb exercise and care versus upper limb exercise and care only in prevention of Upper Limb Lymphedema following breast cancer surgery, Surgical Disciplines
10. Study of involvement of specific neuropeptides at spinal level in the rat model of post-operative pain, Anatomy
12. Establishing a network of population based influenza surveillance platforms for elderly persons in India, Centre for Community Medicine
13. Study of Physical Activity (PA) among Under-Graduate (UG) Medical Students in AIIMS, New Delhi, Centre for Community Medicine
14. Feasibility of introducing Structured Yoga Programme and its effect on Stress and Perceived Well-being on New Medical Undergraduate Students of AIIMS, New Delhi, Centre for Community Medicine
15. Descriptive epidemiological study of patients with dermatophytic infections attending tertiary care centre in Northern India, Dermatology
16. Biomarkers for assessment of villous abnormalities in patients with celiac disease and other enteropathies, Gastroenterology
17. Clinical and biological significance of mutations in mitochondrial DNA in AML, Medical Oncology, IRCH
18. Role of bone marrow micro-environment in multiple myeloma, Medical Oncology, IRCH
19. Bortezomib, lenalidomide and Dexamethasone based consolidation therapy after autologous hematopoietic stem cell transplantation in multiple myeloma, A single arm prospective study, Medical Oncology, IRCH
20. ADE as salvage Chemotherapy for pediatric AML patients at first relapse, Medical Oncology, IRCH
21. Standardization of a real time PCR for the diagnosis of acute bacterial meningitis and correlation of humoral and cell mediated immune response in the CNS, Microbiology
22. Quantitative real time PCR and genotyping for Cytomegalovirus in ulcerative colitis, Microbiology
23. Magnitude of Prosthetic Joint Infections (PJI) and role of amplification based DNA analysis for identifying microbial profile of prosthetic joint infections in a Tertiary Care Hospital, Microbiology
24. To study clinical and biological significance of mutations in mitochondrial DNA regulatory region in acute myeloid leukemia, Medical Oncology, IRCH
25. Effect of yoga as add-on therapy in migraine, A randomized controlled study, Neurology
26. Quantitative EEG correlates of emotion induced changes in cognitive performance in healthy volunteers, Physiology
27. Multiparametric MRI and Ga-68 PSMA PET scan in the evaluation of intermediate and high risk prostate cancer, Radiodiagnosis
28. Diagnostic and prognostic role of MRI in Acute Traumatic Cervical cord injury, Radiodiagnosis
29. Assessment of scar post MI with the help of cardiac MRI, Radiodiagnosis
30. Use of screen based media and assessment of screen time among adolescents aged 10 to 19 years, in an urban resettlement colony, New Delhi, Centre for Community Medicine
31. Diabetes and hypertension among elderly persons in a rural area of Ballabgarh, Haryana, Centre for Community Medicine
32. Visual impairment among elderly persons in an urban resettlement colony in Delhi, Centre for Community Medicine
33. Evaluation of osteopontin as a biomarker and its correlation with the disease severity score in enzyme naïve patients with Gaucher Disease, Paediatrics
34. Risk Behaviors amongst youth men in a rural area of North India: A cross-sectional study, Centre for Community Medicine
35. Evaluation of eating disorders and dietary patterns and their association with metabolic parameters and glycemic control in adult patients with diabetes mellitus type 2, Endocrinology
36. Value of intraventricular synchronism assessment by gated-SPECT myocardial perfusion imaging in the management of heart failure patients submitted to cardiac resynchronization therapy, Cardiology

PUBLICATIONS

Journals: 75

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor RM Pandey had the following honors and significant events. Ethics Committee: Chairperson of Indian Institute of Public Health (Under PHFI), Delhi; Member: United Nations Regional Centre for Biotechnology, Under DBT. Coordinator: Mandatory five days workshop on Research Methodology, Writing and Communication, for the PG Students at the AIIMS; Member: Scientific Advisory Committee of National Institute of Epidemiology (ICMR), and Regional Medical Research Center (RMRC-ICMR); Operations Research on RNTCP (Government of India); Research Advisory Council, BPKIHS, Dharan, Nepal; Research Advisory Committee, Vallabh Bhai Patel Chest Institute, Delhi University; Steering Committee Member of Multi-centric Collaborative Study of the clinical, biochemical and molecular characterization of Lysosomal storage disorders in India; Expert Committee, Task Force Project on Cleft Lip and Palate Anomaly (ICMR); Technical Advisory Group on grand challenges India/Nutrition and Health funded by Bill Milanda Gates Foundation and DBT; Expert Committee to evaluate R&D proposals on the possible impact of IMF Radiation Exposure from Mobile tow-
ers and handsets on life and related R&D initiative by DST; Expert Committee on estimation of burden of Paediatric HIV cases in India (ICMR); **Member DSMB:** Community based Kangaroo Mother Care on newborn mortality, coordinated by WHO; Member of Scientific Academic Committee of National Institute of Epidemiology, Chennai; ICMR-Regional Medical Research Centre, Bhubaneswar. **Examiner:** PhD thesis submitted at Delhi University, Delhi; IIPS, Mumbai; CMC Vellore and Kerala University.

**Professor SN Dwivedi** was member (UGC Nominee), Advisory Committee, Department of Statistics, Calcutta University; Advisor for two PhD students, University of Delhi; Member, National Organizing Committee for the 29th International Population Conference of International Union for Scientific Study of Population (IUSSP), to be held at Hyderabad (2021); External Member, Board of Post Graduate Studies in Statistics, Assam University, Silchar; Member, Governing Body, Institute of Applied Statistics and Development Studies, Lucknow; Member, Expert Committee on Gestational Diabetes Mellitus (GDM), Task Force Committee on Methods and Project Review Committees, for Indian Council of Medical Research; Member, Special Project Review Committee for Model Rural Health Research Units (Block Level) of the Department of Health Research, Ministry of Health and Family Welfare, Government of India; Member, Data Safety Monitoring Board (DSMB) for a Multicentric Study of Public Health Foundation of India (PHFI); Judge to assess poster presentations and recommend first three best papers for the award; and Chair of Plenary Session, “Advanced Statistical Methods in Medical Research”, under 36th Annual Conference of Indian Society for Medical Statistics, NIMHANS, Bengaluru; Chair, Technical Session during an International Conference on Emerging Innovation in Statistics and Operations Research (EISOR-2018), MD University, Rohtak; Chair, Scientific Session on “Mortality” and Panelist for discussion on Emerging opportunities for Indian Association for the Study of Population (IASP): How to tap? during 39th Annual Conference of the Indian Association for Study of Population (IASP), BHU, Varanasi; External examiner evaluating two PhD theses from abroad for award of PhD degrees in Statistics, one from The University of West Indies, School for Graduate Studies and Research, St. Augustine Campus, and another from University of Rajshahi, Bangladesh; four thesis from India, One each from Gauhati University, Guwahati; University of Calcutta, Kolkata; International Institute for Population Sciences, Mumbai and Centre for Cancer Epidemiology, Tata Memorial Cancer, Mumbai; External Examiner to conduct PhD Viva Voce Examinations, One each at Statistics Department, Gauhati University, Guwahati; International Institute for Population Sciences, Mumbai; and The University of West Indies, School for Graduate Studies and Research, St. Augustine Campus through SKYPE; Member, Selection Committee at National Institute of Mental Health and Neuro-Sciences, Bengaluru; and Expert Member, Selection Board at ESIC Medical College, Faridabad; Reviewer, American Journal of Public Health; Reviewer, “Paediatrics, American Academy of Paediatrics”; Editorial Board Member, Biostatistics and Biometrics Open Access Journal; Reviewer, International Society for Clinical Biostatistics; Systematic Reviews; International Journal of Educational Research and Reviews; Statistical Editor, Indian Journal of child Health; Editor, Demography India; Member, Editorial Board of Indian Spine Journal; Member, Editorial Board of Indian Journal of Child Health; Reviewer, Indian Journal of Medical Research; Member, International Society for Clinical Biostatistics; Elected Member, International Statistical Institute, and International Association for Statistical Education, Netherlands; Member, International Epidemiological Association, USA; Fellow, Royal Statistical Society, UK; Member, Institute Ethics Committee for Post Graduate studies; Founder Vice-President, Society for Evidence Based Health Care; Member of Fellowship Committee regarding FSMS Award of Indian Society for Medical Statistics (ISMS); Member of Search Committee for other ISMS awards (Prof SK Bhattacharya Oration, Smt. Ramrati Lalima Sahai Award, Life-time Achievement Award, Profesor A Indrayan Travel Grant).

**Professor V Sreenivas** was member, Scientific Advisory Committee (SAC) of the National Institute for Cancer Prevention and Research, ICMR; Member, Assessment Board for promoting the scientists of the Indian Council of Medical Research; Member of Task Force Committees of ICMR on Neurology, Non-ionizing EMF on Human Health, Studies on sleep disorders and DM with traditional medicines, Polycystic Ovarian Disease, Male contraceptive RISUG trial; Member, Selection Committees and Screening Committees for various posts, ICMR and Member of Project Review Committees of Neurology, Indian Council of Medical Research, Department of Health Research, India. He is Statistical Consultant to the Indian Journal of Dermatology and Venereologial Diseases (IJDVL); Biostatistics Reviewer for Journal of Clinical Oncology (American Society for Clinical Oncology), Paediatrics (American Academy of Paediatrics), Indian Journal of Dermatology, Venereology and Leprology, and Indian Paediatrics and Statistical Consultant to the Journal of Indian Association of Child and Adult Mental Health (JACAM) and Expert for Reviewing the Research proposals, Medical Research Council, UK. He was member, Institutional Ethics Committee, AIIMS and also PhD Statistics Reviewer for Madras University, Chennai and Manonmani Sundarnar University, Thirunelveli

**Dr Maroof A Khan** was an Associate Editor (2015-2018), Journal of Statistics and Mathematics, USA; Editorial Board Member (Biostatistics), International Journal of Scientific Reports; Scientific reviewer of Indian Journal of Medical Research, India; Scientific Reviewer of Statistics, Optimization and Computing, An International Journal, USA; Scientific Reviewer of Journal of Model Assisted Statistics and Applications, USA; Scientific reviewer of Journal of Obesity, UK and Scientific Reviewer of Journal of Biomedical Research, UK.
HIGHLIGHTS

1. The department runs a well-rated Masters in Biotechnology course with specialization in Medical Biotechnology admitting 12-14 students per batch. It also runs a PhD program. The total strength of MSc and PhD students is about 35.

2. The department faculty mentored about 10 post-doctoral scientists.

3. It provided support to the Summer Research Fellowship program of the National Science Academies of India.

4. The department has 6 senior demonstrators (Drs Sakshi Dhingra, Kriti Sikri, Priya Kalra, Saurabh Sharma, Priyanka Duggal and Chaman Saini) who participate in the teaching and research activities.

5. A large number of extramural research grants are received by departmental faculty from government funding agencies.

6. Faculty and students have presented their research work at national and International conferences of various scientific societies.

7. Faculty and students have received national-level honours/awards from various scientific organizations in recognition of their outstanding contributions to Biotechnology.

8. Faculty served as experts in several scientific committees of various institutes and universities of the Government of India.

9. Faculty published peer reviewed research articles in reputed national and international journals.

10. Faculty filed patents in TB diagnostic technologies and developed TB diagnostic kits.

11. The department has started student mentorship and career awareness programs to cater to the needs of students from diverse backgrounds to support the learning outcomes among the students.

EDUCATION

Postgraduate Teaching

1. The department conducts a 2 years postgraduate course in Biotechnology with emphasis on Medical Biotechnology leading to MBiotech degree. The teaching program covers 16 subjects, namely, Cell and Developmental Biology, Genetics, Human Biochemistry, Medical Microbiology, Immunology and Immunotechnology, Molecular Biology, Infectious Disease Biology, Genetic Engineering and Genome Technology, Biophysics (Principles, Techniques and Applications in Medicine), Bioinformatics, OMICS (Genomics, Transcriptomics, Proteomics and Metabolomics), Biostatistics, Seminars in Laboratory Techniques (Principles and Instrumentation), Medical Biotechnology (Journal Club and Communication Skills), Seminars in Molecular Medicine and Biotechnology and Dissertation in frontier areas of medical research.

2. The department has introduced three new credit courses in the course curriculum of MBiotechnology (2018-2020) namely, Infectious Disease Biology, OMICS: Genomics, Transcriptomics, Proteomics, and Metabolomics and Laboratory course on Medical Microbiology and Infectious Disease Biology
3. Students are given individual attention and extensive hands on training in practical classes
4. Experts are invited from JNU, IGIB, ICGEB, NII, IIT, THSTI, RCB, BCIL, TERI, Jamia Hamdard and University of Delhi in addition to AIIMS faculty from various specialties, to deliver seminars in biotechnology, bioinformatics, molecular medicine, genomics, proteomics etc
5. The department conducts a PhD program in the area of Medical Biotechnology
6. The department mentors and supports young scientists having DST INSPIRE Faculty award, DBT and DST National Post-Doctoral and Young Scientist Award

CMEs/Workshops/Symposia/National and International Conferences
1. Two-day workshop on Flow Cytometry (Basics, Multicolor Flow Cytometry, Data Analysis and Presentation), 11-12 February 2019, Dr Rupesh K Srivastava, Department of Biotechnology, AIIMS, New Delhi
2. 1st Career Awareness Program in Biotechnology, 15 March 2019, Dr Vikram Saini, Department of Biotechnology, AIIMS, New Delhi
3. Two-day workshop on applications of multi-mode readers with imaging capabilities in Biomedical Research, 25-26 May 2018, Dr Vikram Saini, Department of Biotechnology, AIIMS, New Delhi

Lectures delivered
Jaya S. Tyagi
2. Vitamin C induced dormancy of *M. tuberculosis*: Mechanisms and boosting the efficacy of TB drugs, International Symposium on Infectious Diseases, Regional Centre for Biotechnology and Jamia Hamdard, 12-14 October 2018, New Delhi
4. Next generation diagnostics for tuberculosis, Open House AIIMS-THSTI, AIIMS, 3 December 2018, New Delhi
5. Next generation diagnostic tests for TB, RePORT India 8th Annual Meeting, 6 February 2019, Chennai
6. Panel discussion on Biotechnology@2025: Our achievements, our aspirations, DBT 33rd Foundation Day, National Institute of Immunology, 26 February 2019, New Delhi
7. Next generation diagnostic tests for Tuberculosis, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 1 March 2019, New Delhi
8. Overview of research in the Department of Biotechnology, Visit of Deakin University delegation, AIIMS, 14 March 2019, New Delhi
9. Next generation diagnostic tests for TB, South Asian Biotechnology Conference, South Asian University, 15 March 2019, New Delhi
10. Novel TB diagnostic technologies, Biosparks, School of Life Sciences, Jawaharlal Nehru University, 16 March 2019, New Delhi

Anushree Gupta
1. Ethics in Biomedical Research, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 6 March 2019, New Delhi

Rupesh Kumar Srivastava
1. High Dietary SALT intake enhances bone loss via modulating Treg-Th17 cell balance, International Conference on Immunology, SRM University, 26-28 September 2018, Kattankulathur, TN
3. Probiotics as novel therapeutics in management of postmenopausal osteoporosis, 29th Annual Meeting of the ISSRF along with Global Conference on Reproductive Health with focus on Occupational, Environmental and Lifestyle Factors (ISSRF-2019), JNU, 22-24 February 2019, New Delhi
Bhupendra Kumar Verma
1. Minor spliceosome mediated human disease: A case study, 87th Conference of Society of Biological Chemist, India, 25-27 November 2018, Manipal, Karnataka
2. Minor spliceosome mediated gene regulation: Links to human diseases, International Conference on Molecular Basis of Disease and Therapeutics, 8-10 March 2019, Kishangarh, Rajasthan
3. Minor spliceosome-Basics and applied aspects, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 21 February 2019, New Delhi

Vikram Saini
1. Hydrogen sulphide as a novel determinant of mycobacterial virulence, persistence and drug tolerance, IYBA Expert Committee Meeting, National Institute of Immunology (NII), India, 24 October 2018, New Delhi
2. Expert Panelist in Agilent Sea-Horse Users meeting about Studying Metabolism and Mitochondrial function, Agilent Sea-Horse Users meeting, Institute of Genomics and Integrative Biology (IGIB), India, 14 February 2019, New Delhi
3. Role of intracellular gases in Mycobacterial Infections, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 18 February 2019, New Delhi
4. Tuberculosis, risk factors and drug development, 113th Orientation Program for Teachers from colleges/universities of India, UGC-Human Resource Development Centre, Jawaharlal Nehru University, India, 19 March 2019, New Delhi
5. Understanding tuberculosis: At the crossroads of latency and drug resistance, Emerging Trends in Bioinformatics and Systems Biology, DBT Government of India-Supported Bioinformatics Sub-DIC, University of Delhi South Campus, India, 27 March 2019, New Delhi

Sirish Kumar Ippagunta
1. Resident non-hematopoietic skin cells control intrinsically psoriasis inflammation, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 11 March 2019, New Delhi

Sumit Rathore
1. Plasmodium vivax malaria: A neglected parasite story, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 5 March 2019, New Delhi

Upasana Bedi Chanana
1. Epigenetic modifications in Cancer: Their Role and Therapeutic Potential, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 12 March 2019, New Delhi

Chanchal Kumar
1. Synthetic biology for the detection, elimination and prevention of infectious diseases, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 12 March 2019, New Delhi

Oral papers/posters presented
2. Taneja V, Kalra P, Goel M, Khilnani GC, Tyagi JS, Gupta UD, Prasad HK, Saini V. Gene Expression profile of IFNγ/IFNα in blood as a diagnostic tool during extra-pulmonary tuberculosis infection, 1st National Biomedical Research Competition-2018 AIIMS, Rishikesh, 15 October 2018, Rishikesh, Uttarakhand (Second prize for Poster-Young Researcher Award-Medical Science Category).
5. Dar HY, Srivastava RK. Bacillus rhamnosus (LR) enhances bone health in Osteoporotic Mice Model (ovx) by regulating Treg-Th17 balance, 7th Asia-Pacific Osteoporosis Conference, IOF Regional-Sydney’18, 28 November-1 December 2018, Sydney
6. Srivastava RK, Dar HY. Sodium Benzoate (NaB)—A food additive, inhibits bone loss by upregulating anti-osteoclastogenic T cells, 7th Asia-Pacific Osteoporosis Conference, IOF Regional-Sydney’18, 28 November-1 December 2018, Sydney


13. Srivastava RK. High dietary salt induces inflammatory bone loss by skewing host Treg-Th17 cell balance, 1st FOCIS-Asian Advanced Course in Basic and Clinical Immunology, 26-29 March 2019, Jaipur


RESEARCH

Funded projects

Ongoing

1. Jaya S. Tyagi. MSc Medical Biotechnology Teaching Program, DBT, Ongoing, 1986 onwards, Rs 33.44 lakhs (2018-2019)

2. Jaya S. Tyagi. Combating the challenge of antibiotic tolerance: Combining conventional anti-tubercular drugs with DevR dormancy regulator-targeted approaches for improving M. tuberculosis clearance, DBT, 3 years, 2018-2021, Rs 47.30 lakhs

3. Jaya S. Tyagi. Aptamer-based Tuberculosis Diagnostics Toolbox (collaborative project), DBT, 3 years, 2018-2021, Rs 16.52 lakhs

4. Rupesh K. Srivastava. Elucidation of Cellular mechanisms involving GUT resident regulatory T cells in Probiotics mediated inhibition of Osteoporosis, DST-SERB, 3 years, 2018-2021, Rs 65.00 lakhs

5. Rupesh K. Srivastava. Development of novel mushroom based synbiotic food supplement for management of Osteoporosis, AIIMS-IIT-Delhi Inter Institutional Collaborative Research Grant, 2 years, 2018-2020, Rs 20.00 lakhs

6. Rupesh K. Srivastava. To Dissect the role of Treg-Th17 cells in Lactobacillus rhamnosus mediated inhibition of Bone loss in ovx mice, AIIMS, 2 years, 2018-2020, Rs 10.00 lakhs


9. Vikram Saini. Har Gobind Khorana Innovative Young Biotechnologist Award (IYBA), DBT, 3 years, 2019-2022, Rs 59.06 lakhs
10. Vikram Saini. Modulation of host bioenergetics health and redox function via Selenium supplementation as a novel approach to tuberculosis management, DST-SERB, 3 years, 2019-2022, Rs 52.00 lakhs

11. Vikram Saini. Selenium supplementation and mycobacterial infections, AIIMS, 2 years, 2018-2020, Rs 10.00 lakhs

12. Shrabani Saugandhika. To study the role of High salt Diet (HSD) in male fertility: Role of bone hormone osteocalcin, AIIMS, 2 years, 2018-2020, Rs 10.00 lakhs

Completed


3. Jaya S. Tyagi. Exploiting temporal transcription profile, computational analysis and post-transcriptional gene silencing to identify and intercept interactions between host and dormant and actively replicating Mycobacterium tuberculosis, DBT, 7.6 years, 2011-2018, Rs 282.99 lakhs

4. Vikram Saini. Role of gasotransmitters in HIV infection. UAB CFAR (as a component of NIH USA funding), 1 year, 2017-2018, Rs 35.00 lakhs

5. Sumit Rathore. To understand organelle dynamics in malaria parasite—Role of Autophagy, DST, 5 years, 2013-2018, Rs 35.00 lakhs

Departmental projects

Ongoing

1. Analysis of host transcriptional response to Mycobacterium tuberculosis in vitamin C ex vivo model of infection and comparison with clinical responses in active TB and latent TB infection

2. Combining conventional anti-tubercular drugs with anti-DevR dormancy regulator compounds for improving Mycobacterium tuberculosis clearance

3. Deciphering the role of chromatin remodeler in epithelial to-mesenchymal transition in breast cancer

4. Development and validation of rapid and accurate diagnostic assays for tuberculosis

5. Functional characterization of minor spliceosomal proteins

6. Insights into transcriptional regulatory network involved in modulating Mycobacterium tuberculosis dormancy adaptation to vitamin C

7. Intracellular adaptation of Mycobacterium tuberculosis in vitamin C dormancy model

8. Metabolic adaptation of Mycobacterium tuberculosis in vitamin C dormancy model

9. Role of YBX proteins in RNA splicing and stability

10. To determine the role of intracellular gases during microbial infections

11. To dissect the role of TH17-Treg cells in Microcystin-LR induced bone loss

12. To study the nexus between probiotic Lactobacillus rhamnosus (LR) and T cell lineages in Ovx mice

13. To study the role of micro-nutrients in tuberculosis infection

14. Vitamin C-modulated host response to Mycobacterium tuberculosis in cell infection model: Potential for host directed therapy

Completed

1. Cloning, expression and purification of putative antigenic proteins of Mycobacterium indicus pranii

2. Deciphering the mechanism of activation of DevR response regulator in Mycobacterium tuberculosis

3. Deciphering the role of Chromatin Remodeler in Epithelial to Mesenchymal Transition in breast cancer

4. Deciphering the role of YBX-1 proteins in mRNA splicing and its stability

5. Development of novel DNA aptamer for the diagnosis of tuberculous meningitis

6. Development of novel point-of-care aptasensors for the diagnosis of pleural tuberculosis

7. Elucidating phosphatase- kinase balance mechanism involved in the expression switch mediating DevR regulon expression

8. Extracting DevR regulatory networks through the analysis of genome wide DevR transcription factor occupancy

9. Extracting the dynamics of intracellular Mycobacterium tuberculosis strains of varying virulence
10. Functional characterization of minor spliceosomal proteins
11. Identification of DevR interacting proteins in Mycobacterium tuberculosis
12. Identification of potential inhibitors of DevR, among FDA approved Drugs
13. Identification, characterization and utility of aptamers against Glc (Malate synthase) protein of Mycobacterium tuberculosis
14. Identification, characterization and utility of aptamers against MPT51 protein of Mycobacterium tuberculosis
15. Impact of micro-nutrient supplementation of microbial infections
16. Insights into Mycobacterium tuberculosis dormancy adaptation in axenic culture and intracellular milieu from transcriptome analysis
17. Mechanistic insights into vitamin C-mediated dormancy adaptation in Mycobacterium tuberculosis
18. Metabolic adaptation of Mycobacterium tuberculosis in vitamin C dormancy model
19. miRNA as evaluation Biomarker for tuberculosis treatment response
20. Multi-centric validation of ‘TB-Detect’ and ‘TB Concentration and Transport’ kit and ‘TB DNA extraction’ kit for the diagnosis of TB and drug resistant TB
21. To dissect the role of TH-17 and Treg cells in Microcystin-LR induced bone loss
22. Utility of novel DNA aptamers for the diagnosis of pulmonary tuberculosis

Collaborative projects

Ongoing
1. Aptamer-based Tuberculosis Diagnostics Toolbox (DBT funded), THSTI, Faridabad and PGIMER, Chandigarh
2. Role of Th9 cells in Osteoclastogenesis, THSTI, Faridabad
3. Role of BPA on Bone health, Delhi University
4. Development of novel mushroom based synbiotic food supplement for management of Osteoporosis, IIT-Delhi
5. Functional characterization of minor spliceosomal proteins, THSTI, Faridabad
6. Role of YBX proteins in RNA splicing and stability, THSTI, Faridabad
7. Clinical significance of cancer stem cells markers and its proteins in different grades astrocytomas, RP Center
8. Exploring the Tryptophan metabolism via Kynurenine pathway and their correlation with clinical outcome in Keratoconus and Fuch’s endothelial corneal dystrophy patients undergoing corneal transplantation, RP Center
9. Link between mitochondrial morphology and mitochondrial biogenesis in Acute lymphoblastic leukemia, Biochemistry

Completed
1. miRNA as evaluation Biomarker for tuberculosis treatment response, ICGEB New Delhi and InStemBanglore
2. Identification of inhibitors for Malate synthase of Mycobacterium tuberculosis to target latent TB infection, Biophysics
3. Structural Studies of GyraseA N- Terminal domain from Salmonella Typhi, Biophysics
4. Functional Studies of p53 Wild-Type And Mutant Y220c In Human p53 Null Cell Line, Biophysics
5. Development of aptamer-based rapid diagnostic assay for Extra Pulmonary Tuberculosis, THSTI Faridabad
6. Biophysical Studies of Bacterial Cell Division Protein Ftsz with its Natural Inhibitors: SulA and MinC, Biophysics
7. Structural and Biophysical Characterization of MurD Ligase from Acinetobacter baumannii, Biophysics

PUBLICATIONS

Journals: 14

PATENTS
1. Aptamer against M.tb MPT51 and uses thereof. Indian Patent Application Number 201811023360
2. Aptamer against M.tb MPT51 and uses thereof. Indian Patent Application Number PCT/IN2018/050581 (PCT application)
3. Apparatus and method for processing a sample for rapid diagnosis of tuberculosis and safe transport of bacteria. Indian Patent application Number 201811042155.
AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Professor Jaya S. Tyagi** is recipient of Janaki Ammal National Women Bioscientist Award (Senior category) 2017/18 of the Department of Biotechnology, Government of India and AIIMS Excellence Research Award 2018 First Prize in Basic research category. She is Honorary Visiting Professor, Centre for Biodesign and Diagnostics, THSTI, Faridabad, Fellow of Indian National Science Academy, Fellow of Indian Academy of Sciences, Fellow of National Academy of Sciences (India), Member of Guha Research Conference, Vice-President and Council member of National Academy of Sciences (India), Member, Panel on Scientific Values, Indian Academy of Sciences, Bengaluru, Member of Scientific Advisory Committee of National Institute for Research in Tuberculosis, Chennai, Member of Scientific Advisory Committee of THSTI, Member of Governing Body of National Centre for Cell Science, Pune, Member of DBT Expert Group on Tuberculosis, Member (Expert) of Assessment Board for promotion of ICMR Scientists under Flexible Complementing Scheme, Member of DBT Task Force on HRD, Member of DBT Technical Evaluation Committee for Infectious Disease Biology, Member of DBT Technical Evaluation Committee in Medical Biotechnology-II for NER, Member, Indo-US Joint Review Meeting, Regional Prospective Observational Research for Tuberculosis (RePORT), Chief Panelist for the selection committee ‘Women in Science’ category for 12th NASI Scopus Young Scientists Awards, Key Guest at NASI—Scopus Young Scientist Awards 2018, Chairperson, Institutional Human Ethics Committee of IGIB, Member of the Special Committee of School of Biotechnology JNU, Member, Examiner of PhD/MSc examinations of PGI Chandigarh, University of Delhi, Jawaharlal Nehru University, Member, Intellectual Property Management Committee, AIIMS, Member Scientific Advisory Committee for AIIMS Endowment Fund, Member, Project review committee for the AIIMS Intramural Research Grant, Member PhD reforms committee, AIIMS, Professor in Charge, Central Core Research Facility, AIIMS and Co-ordinator BSL-3 and BSL-2 Laboratories, AIIMS; South Asian Biotechnology Conference, Chairperson of session on ‘Infectious Diseases’, South Asian University, 15 March 2019, New Delhi; NASI Women’s Day; Chairperson of session ‘Entrepreneurship development’, Special program on ‘Science in Women and Science for Women’ at National Academy of Sciences (India), 9 March 2019, Prayagraj.

Dr Anushree Gupta is member of Board of Governors of IISER, Mohali.

Dr Rupesh Kumar Srivastava was conferred with the prestigious “Professor G. P. Talwar Young Scientist Award” for the year 2019 from Indian Society for the study of Reproduction and Fertility (ISSRF), India in recognition of outstanding contribution in the field of Reproductive Health (Post-menopausal osteoporosis). Expert Judge for the Oral talks and the Poster-evaluation The NCR-Young Emerging Scientist (YES) Symposium at The NCR-Young Emerging Scientist (YES) Symposium, Science Day Celebrations, National Institute of Immunology (NII), New Delhi, India.

Dr Vikram Saini is recipient of the HarGobind Khorana Innovative Young Biotechnologist Award (IYBA), Department of Biotechnology, Government of India (2018), Expert and evaluator of the research and community program development at the Stanley Browne Laboratory, the Leprosy Mission Trust India, New Delhi; Member of CCRF-Biosafety Lab (BSL-2 and BSL-3 laboratory) sub-committee, AIIMS; Member of technical Committee Nude-mice/Transgenic mice development facility at Central Animal Facility, AIIMS; Review editor at Journal Frontiers in Microbiology, Expert Judge for the poster-evaluation at International Symposium on Infectious Diseases at International Symposium on Infectious Diseases, Jamia Hamdard University, New Delhi, India, Expert Judge for the Oral talks and the Poster-evaluation The NCR-Young Emerging Scientist (YES) Symposium at The NCR-Young Emerging Scientist (YES) symposium, Science Day Celebrations, National Institute of Immunology (NII), New Delhi, India.

VISITING SCIENTISTS

1. **Dr Satya Dandekar, PhD**: Professor of Microbiology and Immunology, Department of Medical Microbiology and Immunology, School of Medicine, University of California, Davis, CA, USA has interacted with students and faculty members on 3 July 2018
2. **Dr Girish Rachakonda, PhD**: Instructor, School of Medicine, Meharry Medical College, Nashville, TN, USA had delivered seminar—Knocking down of Nrf2 leads to high grade, radiation resistant metastatic tumors in Prostate cancer on 23 July 2018
3. **Dr Abhishek Jain, PhD**: Assistant Professor, Department of Biomedical Engineering, Texas A&M College of Engineering, College Station, TX, USA had interacted with faculty members on 6 August 2018
4. **Dr Raushan Kumar Singh, PhD**: University of Massachusetts Medical School, Worcester, USA had delivered seminar-Mechanism of ATP—dependent chromatin remodeling on 11 October 2018
5. **Dr Tarun Sharma, PhD**: Scientist, THSTI, Faridabad had delivered seminar—Aptamer based point-of-care diagnostic platforms on 18 February 2019
6. **Dr Anandita Singh, PhD**: Assistant Professor, Department of Biotechnology, TERI, New Delhi has delivered seminar—GM crop for food security and sustainable development on 25 February 2019
7. **Dr Rahul Pal, PhD:** Scientist, NII, New Delhi had delivered seminar—Disorders of Proliferation: Analysis of Novel Pathways and Targets on 26 February 2019

8. **Dr S. Raisuddin, PhD:** Professor, Medial Elementology and Toxicology, Jamia Hamdard, New Delhi had delivered seminar—Human health concerns of biotechnological products on 27 February 2019

9. **Dr Sagar Sengupta, PhD:** Scientist, NII, New Delhi had delivered seminar—Mechanisms of maintenance of genomic stability by helicases on 28 February 2019

10. **Dr Purnima Sharma, PhD:** Managing Director, BCIL, New Delhi has delivered seminar—Career Opportunities in Medical Biotechnology on 1 March 2019

11. **Dr Dhiraj Kumar, PhD:** Group Leader, Cellular Immunology, ICGEB, New Delhi had delivered seminar—Host innate responses to Mycobacterium tuberculosis on 5 March 2019

12. **Dr K. Natarajan, PhD:** Professor, JNU, New Delhi had delivered seminar—How Chromatin and Genomic landscape Controls Gene Regulation in the Major Fungal Pathogen Candida albicans? on 7 March 2019

13. **Dr K. Natarajan, PhD:** Professor, ACBR had delivered seminar—Modulation of host defence responses by Mycobacterium tuberculosis on 8 March 2019

14. **Dr Manjula Kalia, PhD:** Associate Professor, RCB has delivered seminar—Molecular Biology and Pathogenesis of Japanese Encephalitis Virus on 8 March 2019

15. **Dr Manidipa Banerjee, PhD:** Associate Professor, IIT, New Delhi has delivered seminar—Cryoelectron microscopy: Principles and Applications on 14 March 2019

16. **Dr Shankar Bhattacharya, PhD:** Scientist, THSTI had delivered seminar—Dengue infections: Should we prevent or cure on 15 March 2019

17. **Dr Vinay K Nandicoori, PhD:** Scientist, NII, New Delhi had delivered seminar—Elucidating the role of Serine/Thrreonine protein kinases in Mycobacterium Tuberculosis on 15 March 2019.
HIGHLIGHTS

The Centre for Community Medicine (CCM) focuses on development of a model of community-based comprehensive health services through its urban and rural health programmes. The Urban Health Programme operates through an Urban Health Center at Dakshinpuri Extension, an urban resettlement colony in New Delhi. The Comprehensive Rural Health Services Project (CRHSP), located at Ballabgarh in District Faridabad of Haryana is a collaborative project between Haryana State Government and the AIIMS, New Delhi. The Mission of CRHSP Ballabgarh is to achieve excellence in public health by undertaking teaching, research and patient care in a rural setting. It comprises of a Sub-District Hospital (SDH), two Primary Health Centres (PHCs) at Dayalpur and Chhainsa, and a network of 12 sub-centres. The Intensive Field Practice area of CRHSP covered a total population of 1,00,772 as of 31 March 2019.

Support to national programmes and international health agencies

The Centre for Community Medicine (CCM) continues to provide technical support to national health programmes including training, development of resource materials and field-based activities.

- The CCM has been designated as the National Centre of Excellence and Advanced Research on Anemia Control
- It has been re-designated as the WHO Collaborating Centre for capacity development and research in community-based NCD prevention and control
- It has conducted faculty development on Operational Research at national level under the Human Resource Development Health Research Scheme of the Government of India
- It provides leadership for elimination of Iodine Deficiency Disorders in India, Bangladesh and Sri Lanka
- The CCM is the National Institute for HIV Sentinel Surveillance for the Government of India. It is the Regional Institute for HIV Sentinel Surveillance under the Ministry of Health and Family Welfare, strengthening the states of Delhi, Uttar Pradesh, Bihar, Jharkhand and Uttarakhand
- An Innovation and Learning Centre is established in collaboration with National Health Mission, Haryana; National Health Systems Resource Centre, Ministry of Health and Family Welfare, Government of India to support implementation of Comprehensive Primary Health Care in aspirational district, Mewat of Haryana
- The department has collaborative projects with CDC Atlanta to elucidate the epidemiology of acute respiratory infections and viral pathogens in India
- The AIIMS technical support unit for SRS-based verbal autopsy through the Sample Registration System based Verbal Autopsy tool with the Office of the RGI, Ministry of Home Affairs is located at the CCM
- Health and well-being Index to monitor Sustainable Developmental Goals at District level and climate based Early Warning System for Vector Borne Diseases in NCR is being studied at the CCM
**EDUCATION**

**Undergraduate MBBS students**

In their 4th-5th semester, MBBS students are posted in the Urban Health Programme for five weeks by rotation where they conduct epidemiological exercise, health talks and family studies. During these two semesters, they also participate in the Family Health Advisory Services (FHAS) in which they follow-up allotted families over a period of nine months and assess effectiveness of interventions implemented by them.

In the 7th Semester, MBBS students are posted for six weeks at CRHSP, Ballabgarh by rotation. This is a residential posting wherein they learn concepts of epidemiology, are oriented to community health, including social determinants of health, community aspects of child health and mental health, district level health systems and health programmes. There are special modules to train them on Integrated Management of Neonatal and Childhood Illnesses (IMNCI) and epidemiology. The students also undertake a brief research project during this posting.

**Interns**

The interns are posted on a residential basis for three months at CRHSP Ballabgarh. This period is divided into six weeks at SDH, and three weeks at each of the PHCs located at Dayalpur and Chhainsa. At the SDH, interns are posted in OPD and wards that help them in learning basic clinical skills as well as in-patient management, including conducting normal deliveries. They are rotated in all the available clinical disciplines at SDH under the supervision of respective senior resident. During posting to PHC, interns participate in health care delivery at the clinics of PHC, sub-centres as well as in antenatal clinics. They are also posted at the delivery hut at each PHC under overall supervision of the Senior Resident of Community Medicine. The students obtain experience in community-level activities, such as supervision of health workers and sub-centres, follow-up of tuberculosis defaulters, outreach activities, immunization, and other ongoing activities at the PHC. At the end of the rural posting, the interns submit their log-book duly signed by respective Senior Residents for an end-posting assessment.

**Postgraduate (MD) students of Community Medicine**

The postgraduate students of Community Medicine are posted at urban and rural health programme for 16-18 months each. Out of the total duration in rural area, they spend equal time at the sub-district hospital and the two PHCs by rotation. During their rural residential posting, they get ample opportunity to gain clinical and management skills and experiences, both at the SDH and PHC. The regular teaching activities include seminars, family and clinical case presentations, problem based exercises on hospital and field-practice area, as well as journal clubs. They are involved in guiding and supervision of students and interns posted in the Centre.

**BSc Nursing and Post-Certificate Nursing Students**

BSc nursing students and post-certificate nursing students are posted to the urban health programme, and have a residential posting for one and half months at CRHSP Ballabgarh. They spend one month at SDH and two weeks in either of the two PHCs. They are provided training in antenatal care, ward management, and immunization. The students deliver health talks in OPD and ward. The training of nursing students is supervised by a faculty member from the College of Nursing, AIIMS, New Delhi.

**In-service Training**

In addition to teaching of students, periodic in-service trainings were conducted for different cadres of staff working at the CRHSP Ballabgarh and PHCs Chhainsa and Dayalpur. The trainings conducted during 2018-2019 were as follows:

1. A total of 50 hours of in-service Training for Field Health Workers and ASHA workers (24*2=48) were conducted at PHC Dayalpur and Chhainsa (figures are inclusive). These were conducted during the monthly meetings, each month. Topics were decided based on the training needs identified during field supervision; for the reporting period, these were as following: Under-5 deaths, MR vaccine, DHS-II reporting, cold chain maintenance, basics of computers, high risk pregnancy, biomedical waste management, PCV vaccine, pneumonia and meningitis, breastfeeding, cancer, diabetes

2. A training session on biomedical waste segregation was held for nursing staff at CRHSP Ballabgarh on 24 April 2018

3. Training of staff nurses and doctors was conducted at PHC Chhainsa regarding Family Planning Logistics Management and Information System (FPLIMS) software on 11 May 2018

4. Training sessions on ante-natal care, normal labour management, post-partum care, high risk pregnancy management, and PPH management were held for interns and junior residents at CRHSP Ballabgarh in July and August 2018
5. Training sessions on neonatal resuscitation, breastfeeding, kangaroo mother care and management of diarrhea in children were held for junior residents, interns and nursing staff at CRHSP Ballabgarh in September and October 2018

6. Training sessions on management of non-communicable diseases and tuberculosis was held for junior residents and interns at CRHSP Ballabgarh on 6 and 20 November 2018, respectively

7. Training sessions on pre- and post-op care of patients, infection control and waste management and ward management were conducted for junior residents, interns and nursing staff at CRHSP Ballabgarh in December 2018

8. Training of health workers and ASHAs was conducted for Antara (DMPA) injections at PHC and subcenters on 19 December 2018

9. Refresher trainings on Neonatal Resuscitation for nursing staff and field health workers of the intensive field practice area were conducted on 12 and 28 March 2019, in collaboration with Faculty members of the College of Nursing. Topics covered were steps in neonatal resuscitation, techniques of positive pressure ventilation and chest compressions and ET intubation and medications. Hands on sessions were also carried out

CMEs/Workshops/Symposia/National and International Conferences

1. Indian network of population-based surveillance platform for influenza and other respiratory viruses among elderly (INSPIRE) INSPIRE–II, Review Meeting, 24-26 September 2018, New Delhi

2. Technical Advisory Group and Network meeting for Mortality in India Established through Verbal Autopsy (MINErVA), 23-24 November 2018, New Delhi

3. Pre-Surveillance Consultation, Review, and Planning workshop, Ramalingaswami Board Room, AIIMS, New Delhi, 17-18 July 2018

4. Pre Surveillance Orientation and Planning Workshop on ANC and Prison HIV Sentinel Surveillance 2019 (HSS 2019) for faculty members of various medical institutions, and officials of state AIDS Control Societies of five northern states (Bihar, Jharkhand, Delhi, UP, and Uttarakhand) at Gurgaon, Haryana, 11-12 December 2018, Delhi

5. National Pre-Surveillance Workshop of RIs and SACS for Central Team Members (CTM), Regional Institute Members, and officials of state AIDS Control Societies of all 35 States and Union Territories of India, 5-6 October 2018, and 8-9 October 2018, Gurgaon
Training-cum-workshop on Vector Borne Diseases, Prevention and Control for Sanitary Inspectors and staff of Dengue Prevention Outbreak Response Cell (DPORC) was organized in collaboration with NCDC, NDMC and MCD, September 2018, Delhi

How to present a better Journal Club, 21 July 2018, Delhi

Lectures Delivered

Kiran Goswami

1. Objectives and expected outcomes, HIV Sentinel Surveillance 2019, Pre-surveillance Orientation and Planning workshop, 2 November 2018, Gurgaon
2. Laboratory procedures in HIV Sentinel Surveillance, HIV Sentinel Surveillance 2019, Pre-surveillance Orientation and Planning workshop, 2 November 2018, Gurgaon

Anand Krishnan

1. Moving from an HDSS to an Observatory—Lessons from Ballabgarh, India-UK Roundtable #2 on establishing India’s first Public Health Observatory (PHO), 2-3 August 2018, NIMHANS, Bengaluru
2. Overview of Health Economics and Economic Evaluation, Workshop on Basics of Health Economics, 31 August 2018, Department of Community Medicine, LHMC, New Delhi
3. Generating evidence on impact of air pollution on Health: Research by CCM, AIIMS, National consultation on role of health sector in combating Health impact of air pollution, 5 October 2018, WHO India and NCDC, New Delhi
4. Methodological Issues and Challenges in NCD epidemiology, 36th Annual Conference of Indian Society for Medical Statistics, 1 November 2018, NIMHANS, Bengaluru
5. Research priorities in CVDs—Epidemiology, public health and health systems, Brainstorming Session in the area of CVDs, Indian Council of Medical Research, 28 January 2019, ICMR, New Delhi
6. Techniques in assessment of health behaviour in NCDs—Diet and Physical Activity, Indo-European Workshop Next Generation Physiology for Healthy Lifestyle, 31 January 2019, AIIMS, New Delhi
7. Leveraging CSR activities for primary health care, health promotion and research, Leveraging CSR for Good Health and Well-Being: Sustainable Development Goal 3, 15 February 2019, FORE School of Management, New Delhi
8. Community Participatory approach for outdoor air pollution in India—Lessons and way forward, Advancing Environmental Health Science Research and Translation in India through Community Based Participatory Research (CBPR), 26-28 February 2019, New Delhi
10. Global and National M&E framework for Non-communicable Diseases, International Course on Public Health Approaches to Noncommunicable Diseases (NCDs), 2-6 March 2019, PGIMER, Chandigarh
11. Air pollution and NCDs and how to address it? International Course on Public Health Approaches to Noncommunicable Diseases (NCDs), 2-6 March 2019, PGIMER, Chandigarh
13. Understanding the burden and drivers of obesity in India, AIIMS New Delhi, Deakins University Meeting, 14 March 2019, New Delhi

Baridalyne Nongkynrih

1. Organizing NCD services, NPCDCS Nodal Officers’ Training, 8-10 August 2018, Aizawl, Mizoram
2. Forecasting demand for medicines, NPCDCS Nodal Officers’ Training, 8-10 August 2018, Aizawl, Mizoram
3. Monitoring and evaluation Monitoring the NPCDCS programme, NPCDCS Nodal Officers’ Training, 8-10 August 2018, Aizawl, Mizoram
4. Detailed implementation plan in the context of the current health care delivery (Eswatini-PEN) S-PEN, Workshop to adapt the WHO package of essential NCD interventions (WHO-PEN) for primary health care and to train the trainers for service delivery, 8-12 October 2018, Eswatini, Africa
5. Discussion on protocol for management of hypertension adoption of a simplified protocol for Eswatini, Workshop to adapt the WHO package of essential NCD interventions (WHO-PEN) for primary health care and to train the trainers for service delivery, 8-12 October 2018, Eswatini, Africa

6. WHO PEN Protocol 3. Management of Asthma 3.1; Management of Chronic Obstructive Pulmonary Disease (COPD), Workshop to adapt the WHO package of essential NCD interventions (WHO-PEN) for primary health care and to train the trainers for service delivery, 8-12 October 2018, Eswatini, Africa

7. Training and supervision of the workforce. Supervision of the implementation, Workshop to adapt the WHO package of essential NCD interventions (WHO-PEN) for primary health care and to train the trainers for service delivery, 8-12 October 2018, Eswatini, Africa

8. Organizing NCD services, NPCDCS Nodal Officers’ Training, 25-27 March 2019, Shillong, Meghalaya


Puneet Misra

1. Anemia Mukt Bharat, National IPHA Conference, 1-3 February 2019, Kakinada


3. Key Finding and Learning from HSS 2017: An Overview, National Pre-Surveillance Workshop of RIs and SACS, 5 October 2018, Patna

4. Universal Health Coverage, 8th Bihar Chapter IAPSMCON2018, 8 December 2018, Patna

Kapil Yadav

1. Test and Treat strategy for Anemia Mukt Bharat, National Workshop on Anemia Mukt Bharat, 18 September 2018, Delhi

2. Universal salt iodisation: The success story in fortification, Celebrating the USI Success Story in India, 13 March 2019, Delhi

Sumit Malhotra

1. Formulating a research question and hypothesis, Clinical and Biological Research in Orthodontics, 21 April 2018, New Delhi

2. Cross-sectional studies, AIIMS PG course on research methodology, writing and communication, 7 August 2018, New Delhi

3. Common causes of maternal deaths and their symptoms, AIIMS Verbal Autopsy Network (MIERVA) Part Time Enumerators (PTE) workshop, 10 August 2018, Jhajjar

4. Writing a good narrative/documentation during VA, AIIMS Verbal Autopsy Network (MIERVA) Part Time Enumerators (PTE) workshop, 10 August 2018, Jhajjar

5. Cross-sectional studies, AIIMS PG course on research methodology, writing and communication, 25 September 2018, New Delhi

6. Mortality surveillance systems in India, Causes of death and ICD coding under SRS-workshop for residents/faculty, 13 October 2018, New Delhi

7. Supervisors training report on 2017-18 activities and summary of feedback, MIERVA Network and Technical Advisory group meeting, 23 November 2018, New Delhi

8. Overview of study designs, Workshop on bio-statistical methods in medical research, 4 December 2018, New Delhi

9. Introduction to MIERVA training and coding platforms, AIIMS, New Delhi Technical Support Unit (ATSU) session on MIERVA Indian Public Health Association National Conference, 2 February 2019, Kakinada

10. Evidence based maternal nutrition interventions: Global and national recommendations and impact, Bihar ToT-MIYCN (Maternal Infant Young Child Nutrition) service delivery protocols for improving service delivery in medical colleges of Bihar, 6 March 2019, Patna

11. Delivering maternal nutrition services including counseling during antenatal care at ANC OPD, Bihar ToT-MIYCN (Maternal Infant Young Child Nutrition) service delivery protocols for improving service delivery in medical colleges of Bihar, 6 March 2019, Patna
12. Protocols for delivering infant and young child nutrition (IYCN) services including counselling at immunization and pediatric OPDs, Bihar ToT-MIYCN (Maternal Infant Young Child Nutrition) service delivery protocols for improving service delivery in medical colleges of Bihar, 7 March 2019, Patna

13. Overview of study designs, Workshop on statistical methods in health data analytics using R, 12 March 2019, New Delhi

Anil Kumar Goswami
1. Diabetes Mellitus, Panel Discussion organized by SEWA an NGO, 12 July 2018, New Delhi
3. Dengue, Awareness Programme on Prevention and Control of Vector Borne Diseases, 19 August 2018, New Delhi
4. How to approach the Communities, and Panchayats Community Mobilization and Art of Interviewing. A training Programme for the staff of Samarth a INCLEN NGO, 5 November 2018, Palwal, Haryana

Ravneet Kaur
1. Introduction to verbal autopsy (VA), Workshop on “Ascertaining cause of death under SRS-based verbal autopsy in India”, 13 October 2018, New Delhi
2. Introduction to MINErVA training Platform, Technical Working Group and Network Meeting of MINErVA, 23 November 2018, New Delhi

Harshal Ramesh Salve
1. General Principles of Programme Management, Organizing health services, Monitoring and supervision, Training workshop of Programme Managers under NPCDCS of State Madhya Pradesh, 19-21 July 2018, Bhopal, Madhya Pradesh
2. General Principles of Programme Management, Organizing health services, Monitoring and supervision, Training workshop of Programme Managers under NPCDCS of State Haryana, 5-7 September 2018, Panchkula, Haryana
3. General Principles of Programme Management, Organizing health services, Monitoring and supervision, Training workshop of Programme Managers under NPCDCS of State Chhattisgarh, 10-12 October 2018, Raipur, Chhattisgarh
4. Verbal Autopsy forms under Sample Registration System, Cause of Death Workshop under MINErVA for doctors, 13 October 2018, New Delhi
5. Status of VA coders under MINErVA, Technical Working Group and Network meeting under MINErVA, 23 November 2018, New Delhi
6. Research Simulation, SET Facility meeting, 9 November 2018, New Delhi
7. Air Pollution and Health risks, Case studies from New Delhi, Environmental Training Programme for CPCB Research Officers, 5 December 2018, Chandigarh
8. Introduction to MINErVA, 63rd Annual conference of IPHA, 2 February 2019, Kakinada, Andhra Pradesh
10. Monitoring and Supervision and Role of Medical Officers, Training of Trainers for Medical Officers in Population level screening under NPCDCS, 16 March 2019, New Delhi

Rakesh Kumar
1. Essentials of Research Methodology and Study Designs, Workshop on Advance methods in Biostatistics and Hands on Practices on Medical Data Using SPSS software, 24 May 2018, ILBS, Delhi

Oral paper presentations


5. Malhotra S, Kalaivani M, Vashist P, Gupta SK, Visual impairment, spectacle coverage and presbyopia in a rural population of North India, Results from Jhajjar Eye Survey in Adults (JESA) (Oral), World Ophthalmology Congress (WOC), 16-19 June 2018, Barcelona, Spain


10. Pentapati SSK, Salve HR, Association of second hand smoke exposure and depression: A systematic review and meta-analysis (Oral), 14th Annual Tobacco Induced Diseases Conference-2018, 5 October 2018, Turkey


**RESEARCH**

**Funded projects**

**Ongoing**

1. National Centre of Excellence and Advanced Research on Anemia Control, Shashi Kant, UNICEF, 2 years, 2018-2020, Rs 1.8 crores

2. Strengthening/Promoting evidence based advocacy for influenza prevention and control in India, Anand Krishnan, CDC, Atlanta, 5 years, 2018-2023, Rs 8.1 crores per year

3. Establishing a technical support unit for Verbal Autopsy based cause of death ascertainment in the sample registration system, Registrar General of India, Anand Krishnan, Office of RGI, India, 3 years, 2017-2020, Rs 2.8 crores per year
4. Effect of structured Yoga programme on hypertension, diabetes, stress and wellness in a community setting, its feasibility and long term sustainability, Puneet Misra, DST, 1 year, 2018, Rs 40 lakhs

5. A Prospective, Multicentre, Randomized, Double Blind, Parallel Group, Phase III Study Comparing Immunogenicity, Safety, and Tolerability of Single Dose of Hepatitis A (Live) Vaccine, Freeze-dried from Sinopharm versus BiovacTM-A (Freeze-dried Live Attenuated Hepatitis A Vaccine) from Wockhardt in Healthy Indian Children, Puneet Misra, Sinopharm, 1 year, 2018, Rs 7 lakhs

6. HIV sentinel surveillance for India project, Sanjay K Rai, NACO, MoHFW, GoI, 2 years, 2018-2020, Rs 2.34 lakhs

7. Development, implementation, evaluation of Social, and Behaviour Change Communication (SBCC) strategy for the prevention and control of dengue in slums and slum like pockets in Delhi, Y S Kusuma, ICMR and ICSSR, 2½ years, 2017-2019, Rs 17.8 lakhs

8. Assessment of Iodine status amongst pregnant women in select district of India, Kapil Yadav, ICMR, 2.5 years, 2016-2019, Rs 57.6 lakhs


10. Innovation Learning Centre for supporting implementation of Comprehensive Primary Health Care in a selected district of Haryana, Sumit Malhotra, National Health Systems Resource Centre, Ministry of Health and Family Welfare, 2 years, 2018-2020, Rs 41.45 lakhs

11. Assessment of implementation and barriers related to weekly iron folic acid supplementation programme in out of school adolescents within National Territory of Delhi, Sumit Malhotra, Delhi State Health Mission, Department of Health and Family Welfare, Government of NCT of Delhi, 1 year, 2018-2019, Rs 16 lakhs

12. Prevalence of disability among elderly persons residing in an Urban Resettlement Colony of Delhi, Anil K Goswami, AIIMS, 1 year, 2017-2018, Rs 4 lakhs

13. Developing Community level Climate based Early Warning System (CCEWS) for Vector Borne Diseases in National Capital Region, India, Harshal R Salve, Climate Change Programme (SPLICE), Department of Science and Technology, Government of India, 3 years, 2017-2020, Rs 55.62 lakhs

14. Mortality burden of ambient PM2.5 exposure in Rural Ballabgarh, Haryana, North India, Harshal R Salve, AIIMS— IIT Joint Collaborative Project Grant, 2 years, 2018-2020, Rs 8.90 lakhs


Completed

1. Establishing A Network of Population Based Influenza Surveillance Platforms for Elderly Persons In India, Anand Krishnan, CDC, 2 years, 2017-2018, Rs 4 crores/year

2. Survey for Monitoring the National Non Communicable (NCD) Targets, Anand Krishnan, ICMR, 1 year, 2018, Rs 1.10 crore


4. Effectiveness of Brief Cessation Advice on Abstinence from Tobacco Smoking Among Patients with Tuberculosis and Non-Communicable Diseases (Hypertension, Diabetes) Attending A Secondary Level Hospital, Ballabgarh, Haryana, Rakesh Kumar, AIIMS, 2 years, 2017-2019, Rs 1.8 lakhs

5. Migration, mobility and antenatal care: An exploratory study to identify key elements to improve coverage and utilization of antenatal care services among migrant pregnant women in Delhi, Y S Kusuma, DST, 1½ years, 2017-2018, Rs 25.8 lakhs

6. Health and nutrition behaviour assessment of youth males in northern part of India, Sumit Malhotra, AIIMS, 1 year, 2017-2018, Rs 4 lakhs

7. Assessment of implementation and barriers related to weekly iron folic acid supplementation programme for school based adolescents in National Territory Region, India, Sumit Malhotra, WHO, 1 year, 2017-2018, Rs 6.79 lakhs

8. Effectiveness of brief cessation advice on abstinence from tobacco smoking among patients with tuberculosis and non-communicable diseases (Hypertension, Diabetes) attending a secondary level hospital, Ballabgarh, Haryana, Rakesh Kumar, AIIMS, 2 years, 2017-2019, Rs 1.8 lakhs
**Departmental projects**

**Ongoing**

1. A study of chronic respiratory diseases and associated factors among elderly persons in a rural area of Haryana
2. A Study of Chronic Respiratory Diseases and Associated Factors among Elderly Persons in a Rural Area of Haryana
3. A study on prevalence of cancer cases and associated factors in a decade (2008-2018) within Intensive Field Practice Area (IFPA), Comprehensive Rural Health Services Project (CRHSP), Ballabgarh, Haryana, India
4. Assessment of menstrual hygiene management amongst adolescent girls in a rural area of North India
5. Assessment of Mental Health Services in District Faridabad, A mixed method study, Common mental disorders and related mental health literacy among adolescents in an urban area of Delhi
6. Assessment of select nutritional problems among adolescent girls in an Urban Resettlement Colony, New Delhi, A mixed method study
7. Association of knowledge and self-efficacy of diabetes management with its control among patients in an urban resettlement colony in Delhi
8. Community’s perception towards quality of primary health care in a rural area of Haryana, A mixed methods study
9. Consumption of High Fat, Salt, Sugar (HFSS) food among adolescents in rural Haryana, India
10. Depressive disorders among adolescents in Ballabgarh, Haryana, India: A community-based cross-sectional study
11. Determinants of treatment default in tuberculosis patients in a rural area of North India: A community-based mixed-method study
12. Diabetes and hypertension among elderly persons in a rural area of Ballabgarh, Haryana
13. Economic burden, prevention and control of pneumonia among elderly
14. Effect of Structured Yoga Programme on Hypertension, Diabetes, Stress and Wellness in Community Setting, its Feasibility and Long-Term Sustainability, 2018-2020
15. Evaluation of anemia control programme in district Faridabad of Haryana: A mixed method study
16. Evaluation of coverage of population-based screening under National Programme for the Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) using Lot Quality Assessment Sampling (LQAS) technique in Faridabad District, Haryana
17. Factors affecting adherence to medication in elderly diabetics and hypertensives in a rural area of Haryana, India
18. Health and nutrition behavior needs assessment of community-based youth in North India
20. Patient costs and treatment delays among newly diagnosed adult tuberculosis patients registered under Revised National Tuberculosis Control Programme in Ballabgarh Block of District Faridabad, Haryana
21. Prevalence of gestational diabetes mellitus among pregnant women attending antenatal clinic in a secondary care health facility in Haryana, India: A hospital based study
22. Prevalence of hypertension among adolescents in rural Ballabgarh, Haryana
23. Prevalence of knee osteoarthritis among elderly in rural Ballabgarh, Haryana
24. Profile of paediatric, adolescent and young TB patients registered under RNTCP, Faridabad district of Haryana
25. Randomized controlled trial of 60 mg vs 100 mg elemental iron with fixed dose of 500 μg folic acid oral supplementation for iron deficiency anemia prophylaxis in pregnant women at a secondary care hospital in Haryana
26. Sleep quality and associated factors among persons aged Sixty years and above in an Urban Resettlement Colony of Delhi
27. Study of knowledge and behaviours related to salt consumption and sources of dietary sodium in women aged 20-59 years in an urban resettlement colony, New Delhi
28. Study of Physical Activity Among under Graduate (Medical Students) in AIIMS, New Delhi
29. Trends of sex ratio at birth: Analysis of births over a decade (2009-2018) at a rural setting in Haryana

**Completed**

1. Does gender influence burden of blindness, cataract blindness and cataract surgical coverage in India? Evidence from systematic review and meta-analysis
2. Estimation of mortality burden in India due to respiratory viruses: Influenza and Respiratory Syncytial Virus
3. Impact of an Integrated Diabetes Self-Management Education Programme on Self Care and Glycemic Control among Diabetic Patients attending Non-Communicable Diseases (NCDs) clinic at a secondary level hospital in a rural area, A randomized controlled trial
4. Prevalence of disability among elderly persons residing in an Urban Resettlement Colony of Delhi
5. Prevalence of disability and its association with quality of life among adult population in Rural Ballabgarh, Haryana
6. Prevalence of Knee Osteoarthritis among elderly in rural Ballabgarh, Haryana
7. Use of screen based media and assessment of screen time among adolescent aged 10-19 years in an urban resettlement colony, New Delhi
8. Validation of a clinical score for identification of bacterial sore throat among 5-15 years outpatient attendees of a health facility in Ballabgarh, Haryana

Collaborative projects

Ongoing

1. A population based prospective cohort study to unravel the causes of stroke and cognitive decline, A cross-cultural perspective, Neurology
2. Prevalence of congenital heart disease in adults residing in Ballabgarh Block of Haryana, India, A population based study, Cardiology
3. Development of Panic and Anxiety Indian Questionnaire (PANIQ), Psychiatry
4. Nodal coordinating centre for surveillance network of antimicrobial resistance in Salmonella enterica serotype Typhi and Paratyphi-A, Microbiology
5. Comprehensive Anaemia Programme and Personalized Therapies, Gynecology
6. The Systematic Medical Appraisal, Referral and Treatment (SMART) Mental Health Programme, Psychiatry
7. Evaluation of prevalence, regional phenotypic variation, co-morbidities, risk factors and the variations in response to different therapeutic modalities among Indian women with polycystic ovary syndrome (PCOS), A multicenter study across India, Gynecology
8. First contact and pre-referral management and compliance to treatment in patients with uveitis, Dr R P Centre for Ophthalmic Sciences
9. Visual impairment among elderly persons in an urban resettlement colony of Delhi, Dr R P Centre for Ophthalmic Sciences
10. Prevalence of non-alcoholic fatty liver disease and its association with cardio-metabolic disease risk factors in North India (I-960) (ICMR), Endocrinology and Metabolism
11. Acceptability and adherence to nutritional supplement in the form of ready to use therapeutic food as adjunct to standard dots therapy among adult malnourished pulmonary tuberculosis patients in Ballabgarh Block of Haryana, Pulmonary Medicine and Sleep Disorders
12. Capacity building for undertaking A Phase III, Randomized, Double-Blind, Placebo-Controlled Trial to Evaluate the Efficacy and Safety of VPM1002 AND mw (MIP) Vaccines in preventing TB in Healthy Household Contacts of New Pulmonary TB Patients, Pulmonary medicine and sleep disorders
14. Mortality burden of ambient PM2.5 exposure in Rural Ballabgarh, Haryana, North India, IIT Delhi
15. Association of particulate matter exposure and depression: A systematic review and meta-analysis, Psychiatry, Biostatistics
16. Extent of mental health issues and addictive behaviour among adolescents seeking help in adolescent friendly clinics in Delhi, NDDTC, Ghaziabad
17. Oral health toolkit for Paediatric Oncology Patients, CDER
18. Taskforce project on prevalence of hearing impairment and etiology, ENT
19. Prevalence of non-alcoholic fatty liver disease and its association with cardio-metabolic disease risk factors in North India, Endocrinology
20. Acceptability and adherence to nutritional supplement in the form of ready to use therapeutic food as adjunct to standard dots therapy among adult malnourished pulmonary tuberculosis patients in Ballabgarh Block of Haryana, Pulmonary medicine and sleep disorders
Completed
1. MRI changes associated with cue-induced craving in Tobacco Smokers, Psychiatry
2. Acceptability and adherence to nutritional supplement in the form of ready to use therapeutic food as adjunct to standard DOTS therapy among adult malnourished pulmonary tuberculosis patients in Ballabgarh block of Haryana Centre for Community Medicine, Pulmonary Medicine and Sleep Disorders, Microbiology

PUBLICATIONS
Journals: 54 Chapters in Book: 1

PATIENT CARE
Patient care at the CRHSP Ballabgarh is described under following two categories
A. Patient care services provided at the Sub-district Hospital, Ballabgarh and;
B. Patient care services provided at the Primary Health Centres

During the year 2018-2019, Nutrition Counseling Clinic has been initiated within paediatric outpatient services at SDH Ballabgarh.

Outpatient Departments:

<table>
<thead>
<tr>
<th>Daily</th>
<th>Thrice weekly</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medicine</td>
<td>Ante-natal clinic</td>
</tr>
<tr>
<td>General Surgery</td>
<td>Twice weekly</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>Dermatology</td>
</tr>
<tr>
<td>Obstetrics and Gynaecology</td>
<td>Ear, Nose and Throat</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>Once weekly</td>
</tr>
<tr>
<td>Tuberculosis clinic</td>
<td>Nutrition counseling clinic</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>Non Communicable Disease Clinic</td>
</tr>
<tr>
<td>Dental</td>
<td>Paediatric Surgery</td>
</tr>
<tr>
<td>AYUSH (Homeopathy)</td>
<td>Burns and Plastic surgery</td>
</tr>
<tr>
<td>AYUSH (Ayurveda)</td>
<td>Physical Medicine and Rehabilitation (PMR)</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>Neurology</td>
</tr>
</tbody>
</table>

Patient care services provided at SDH Ballabgarh

Total Outdoor Patients

<table>
<thead>
<tr>
<th>Out Door Patients Total</th>
<th>3,51,704</th>
</tr>
</thead>
<tbody>
<tr>
<td>• New OPD patients (%)</td>
<td>1,97,318 (56.1%)</td>
</tr>
<tr>
<td>General Medicine</td>
<td>96,281</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>79,087</td>
</tr>
<tr>
<td>Obstetrics and Gynaecology</td>
<td>29,662</td>
</tr>
<tr>
<td>Antenatal care Clinic registrations, Total visits</td>
<td>21,740</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>15,659</td>
</tr>
<tr>
<td>General Surgery</td>
<td>14,210</td>
</tr>
<tr>
<td>ENT</td>
<td>11,131</td>
</tr>
<tr>
<td>Dental</td>
<td>10,057</td>
</tr>
<tr>
<td>Physical Medicine and Rehabilitation</td>
<td>2,507</td>
</tr>
<tr>
<td>Non-Communicable Diseases clinic</td>
<td>7,284</td>
</tr>
<tr>
<td>Dermatology</td>
<td>13,594</td>
</tr>
<tr>
<td>AYUSH</td>
<td>11,126</td>
</tr>
</tbody>
</table>
Orthopedics 28,260
Psychiatry 10,727
Nutrition Counseling Clinic 197
Burns and Plastic Surgery 15
Neurology 167

**In-patient services**

**Total no. of beds: 50**

<table>
<thead>
<tr>
<th>Total Admissions (including births)</th>
<th>12,608</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission through casualty</td>
<td>5,539</td>
</tr>
<tr>
<td>Admission through OPD</td>
<td>3,315</td>
</tr>
<tr>
<td>Admission of New Born (births)</td>
<td>3,754</td>
</tr>
</tbody>
</table>

**Disaggregation of admissions, by specialty (N=12,608)**

<table>
<thead>
<tr>
<th>Specialty</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Obstetrics and Gynaecology</td>
<td>7,483</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>4,132</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>588</td>
</tr>
<tr>
<td>General Surgery</td>
<td>267</td>
</tr>
<tr>
<td>General Medicine</td>
<td>90</td>
</tr>
<tr>
<td>ENT</td>
<td>41</td>
</tr>
<tr>
<td>Physical Medicine and Rehabilitation (PMR)</td>
<td>7</td>
</tr>
<tr>
<td>Average Bed Occupancy Rate (%)</td>
<td>118.0%</td>
</tr>
<tr>
<td>Total Deliveries Conducted (including IUD)</td>
<td>3,780</td>
</tr>
<tr>
<td>Average duration of stay for all patients (in days)</td>
<td>1.72</td>
</tr>
</tbody>
</table>

**Casualty Services**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients registered</td>
<td>66,540</td>
</tr>
<tr>
<td>Medico-legal cases</td>
<td>4,115</td>
</tr>
<tr>
<td>Emergency admissions</td>
<td>1,581</td>
</tr>
</tbody>
</table>

**Surgical Procedures at SDH Ballabgarh**

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Major</th>
<th>Minor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ophthalmology (including cataract extraction)</td>
<td>552</td>
<td>552</td>
<td>1104</td>
</tr>
<tr>
<td>Obstetrics and Gynaecology</td>
<td>439</td>
<td>423</td>
<td>871</td>
</tr>
<tr>
<td>General Surgery</td>
<td>169</td>
<td>252</td>
<td>413</td>
</tr>
<tr>
<td>Paediatric Surgery</td>
<td>76</td>
<td>131</td>
<td>207</td>
</tr>
<tr>
<td>ENT</td>
<td>5</td>
<td>69</td>
<td>74</td>
</tr>
<tr>
<td>PMR</td>
<td>19</td>
<td>7</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>708</td>
<td>1434</td>
<td>2142</td>
</tr>
</tbody>
</table>

**Laboratory and Diagnostic Services**

<table>
<thead>
<tr>
<th>Specialty</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory investigations (biochemical and haematological)</td>
<td>2,67,005</td>
</tr>
<tr>
<td>X-Ray</td>
<td>20,044</td>
</tr>
<tr>
<td>USG</td>
<td>9,546</td>
</tr>
</tbody>
</table>
Malaria Slides
- P. vivax detected: 2
- P. falciparum detected: NIL
Counselling and testing services provided for HIV: 12,341

**Revised National Tuberculosis Control Programme:**
SDH Ballabgarh is a Tuberculosis Unit (TU) under the Revised National Tuberculosis Control Programme. Three Designated Microscopy Centres (DMCs) are attached to this unit. Total tuberculosis cases treated at Ballabgarh Hospital from 1 April 2018 to 31 March 2019 were as follows:

<table>
<thead>
<tr>
<th>Total cases started on treatment</th>
<th>955</th>
</tr>
</thead>
<tbody>
<tr>
<td>New case</td>
<td>805</td>
</tr>
<tr>
<td>Previously treated case</td>
<td>150</td>
</tr>
</tbody>
</table>

**Community Health Services**
Domiciliary, outpatient, inpatient, and referral services are provided in the IFPA. Important demographic indicators for the IFPA were as follows:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>1,00,772</td>
</tr>
<tr>
<td>Birth rate per 1,000 population</td>
<td>19.5</td>
</tr>
<tr>
<td>Death rate per 1,000 population</td>
<td>6.3</td>
</tr>
<tr>
<td>Sex ratio at Birth (females per 1,000 males)</td>
<td>860</td>
</tr>
<tr>
<td>Infant mortality rate per 1,000 live births</td>
<td>38.6</td>
</tr>
<tr>
<td>Under 5 mortality rate per 1,000 live births</td>
<td>42.6</td>
</tr>
</tbody>
</table>

**OPD Services in Intensive Field Practice Area:** This includes health care services provided at OPD of the PHC, as well as the OPD of the Extended Health Clinics, that are conducted at each of the villages.

<table>
<thead>
<tr>
<th>PHC</th>
<th>New Cases</th>
<th>Repeat Visits</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dayalpur</td>
<td>19,344</td>
<td>21,102</td>
<td>40,446</td>
</tr>
<tr>
<td>Chhainsa</td>
<td>14,829</td>
<td>9,323</td>
<td>24,152</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>34,173</strong></td>
<td><strong>30,425</strong></td>
<td><strong>64,598</strong></td>
</tr>
</tbody>
</table>

Total No. of AYUSH OPD Patients registered at PHC Dayalpur: **9,213**
(There is no AYUSH OPD at PHC Chhainsa)

**Inpatient Services provided at the PHCs**

<table>
<thead>
<tr>
<th>PHC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dayalpur</td>
<td>380</td>
</tr>
<tr>
<td>Chhainsa</td>
<td>410</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>790</strong></td>
</tr>
</tbody>
</table>

**Emergency Services at PHCs**

<table>
<thead>
<tr>
<th>PHC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dayalpur</td>
<td>12,075</td>
</tr>
<tr>
<td>Chhainsa</td>
<td>4,093</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16,168</strong></td>
</tr>
</tbody>
</table>

**Family Welfare and Maternal Child Health**
The following services are provided as per the guidelines of National Health Mission
Indicator | Value  
---|---
Total ante-natal registration | 2,132
Complete TT coverage of registered cases (%) | 100%

**Percentage of Institutional delivery**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>PHC Chhainsa (%)</th>
<th>PHC Dayalpur (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHC Chhainsa (%)</td>
<td>98.1%</td>
<td></td>
</tr>
<tr>
<td>PHC Dayalpur (%)</td>
<td>98.2%</td>
<td></td>
</tr>
</tbody>
</table>

**Total deliveries in delivery huts at the PHCs**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHC Chhainsa</td>
<td>410</td>
</tr>
<tr>
<td>PHC Dayalpur</td>
<td>380</td>
</tr>
</tbody>
</table>

**Other National Health Programmes**

**National Vector Borne Disease Control Programme:** Collection of blood slides are done as a part of passive surveillance in OPD and as active surveillance during domiciliary visits in the IFPA.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>PHC Chhainsa</th>
<th>PHC Dayalpur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of malaria slides tested</td>
<td>3,493</td>
<td>6,433</td>
</tr>
<tr>
<td>Total number of positive cases</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>Annual Parasite Incidence (per 1,000 population)</td>
<td>0.3</td>
<td>0.015</td>
</tr>
<tr>
<td>Annual Blood Examination rate (%)</td>
<td>7.0%</td>
<td>12.7%</td>
</tr>
<tr>
<td>Slide Positivity Rate (%)</td>
<td>0.46%</td>
<td>0.14</td>
</tr>
</tbody>
</table>

**Revised National Tuberculosis Control Programme:** The Revised National Tuberculosis Control Programme is carried out in the IFPA according to national guidelines. Dayalpur PHC has been designated as a Microscopy Centre and caters to all villages under the IFPA. Tuberculosis patients treated in the IFPA (category wise) is as follows:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>PHC Chhainsa</th>
<th>PHC Dayalpur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of patients started on treatment</td>
<td>67</td>
<td>102</td>
</tr>
<tr>
<td>New Cases</td>
<td>61</td>
<td>63</td>
</tr>
<tr>
<td>Previously treated cases</td>
<td>6</td>
<td>39</td>
</tr>
</tbody>
</table>

**Special services:** Out Reach Speciality OPD (ORSO) is a special activity conducted at each PHC where senior residents posted at SDH Ballabgarh attend the patients at PHCs on a weekly basis. The services were started in June 2013. For the period, 1 April 2018 to 31 March 2019, the cases attended to at each PHC were as follows:

<table>
<thead>
<tr>
<th>Services</th>
<th>PHC Chhainsa</th>
<th>PHC Dayalpur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gynaecology</td>
<td>146</td>
<td>1,024</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>246</td>
<td>483</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>429</td>
<td>812</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>190</td>
<td>261</td>
</tr>
<tr>
<td>Total</td>
<td>966</td>
<td>2,580</td>
</tr>
</tbody>
</table>

Anti-rabies vaccination was provided to 1,074 individuals in PHC Chhainsa and 769 doses in PHC Dayalpur. Some of the additional activities at PHCs are summarized below:

<table>
<thead>
<tr>
<th>Particulars</th>
<th>PHC Chhainsa</th>
<th>PHC Dayalpur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total health talks</td>
<td>36</td>
<td>46</td>
</tr>
<tr>
<td>Pregnancy received IVIS (Intravenous Iron Sucrose)</td>
<td>184</td>
<td>742</td>
</tr>
<tr>
<td>PPIUCD (Post Partum Intrauterine Cu-T Device)</td>
<td>24</td>
<td>111</td>
</tr>
<tr>
<td>High risk pregnancy detected</td>
<td>405</td>
<td>399</td>
</tr>
</tbody>
</table>

**IEC Activities**

**Group Health Talks:** Delivered on following topics: Post-natal care, clean drinking water, family planning, menstrual hygiene, prevention from mosquitos, tobacco use, animal bite, family planning and ANC care.

**Short film shows:**

Films were screened in Child Welfare Centre, Ballabgarh, PHC Dayalpur, and PHC Chhainsa on important topics i.e. breast feeding, antenatal care, child care, female feticide, eye care, Vitamin A deficiency, malnutrition, and diarrhoea during OPD timings.
Special activities during financial year 2018-2019 at PHCs

1. **MR (Measles and Rubella) campaign**: MR campaign was conducted in schools from 25 April to 5 June 2018 under areas covered under PHCs Dayalpur and Chhainsa

2. **Test and treat campaign**: Test and treat camps for Anemia were held in month of September, 2018 as part of Anemia Mukt Abhiyaan at PHCs and SDH Ballabgarh

3. **Assessment for National Quality Assurance Standards**: Both the PHCs have been working with a mission of providing quality comprehensive care to the beneficiaries. NQAS assessment was done for both the PHCs and NQAS accreditation was obtained

**Visiting Students/Fellows at CRHSP Ballabgarh**

1. 15 students (MPH/MPhil/PhD), 2 faculty members, 2 technical staff from Centre of Social Medicine and Community Health, Jawaharlal Nehru University, New Delhi visited for their fieldwork at CRHSP Ballabgarh on 29/30 October 2018

2. Stanford Biodesign Fellows are posted every year for a period of two weeks for orientation to CRHSP Ballabgarh

**Urban Health Programme**

The field practice area of the Urban Health Programme, Centre for Community Medicine is located at Dakshinpuri Extension, Dr Ambedkar Nagar in South Delhi, consisting of Blocks 1-7,14,15,19, Subhash camp, Dakshinpuri catering to a population of around 35,363. Patient care services are provided at the Urban Health Centre.

**Clinical Services**

<table>
<thead>
<tr>
<th>Activities</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPD</td>
<td>22,682</td>
</tr>
<tr>
<td>Laboratory services</td>
<td></td>
</tr>
<tr>
<td>Total no of patients seen (including immunization)</td>
<td>22,682</td>
</tr>
<tr>
<td>Total Lab Tests</td>
<td>4,539</td>
</tr>
<tr>
<td>No. of Hb. Test Conducted</td>
<td>1,487</td>
</tr>
<tr>
<td>Of which numbers having Hb.&lt;7 gm%</td>
<td>46</td>
</tr>
<tr>
<td>Of which numbers having Hb.&lt;11 gm%</td>
<td>680</td>
</tr>
<tr>
<td>Blood Sugar</td>
<td>2221</td>
</tr>
<tr>
<td>Urine albumin and sugar tested</td>
<td>69</td>
</tr>
<tr>
<td>RDT for Malaria</td>
<td>135</td>
</tr>
</tbody>
</table>

**Child Health services**

<table>
<thead>
<tr>
<th>Number of immunization sessions held - 98</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
</tr>
<tr>
<td>DPT/pentavalent1</td>
</tr>
<tr>
<td>DPT/pentavalent12</td>
</tr>
<tr>
<td>DPT/pentavalent13</td>
</tr>
<tr>
<td>OPV 0 dose (birth dose)</td>
</tr>
<tr>
<td>OPV1</td>
</tr>
<tr>
<td>OPV2</td>
</tr>
<tr>
<td>OPV3</td>
</tr>
<tr>
<td>Hepatitis-B1</td>
</tr>
<tr>
<td>Hepatitis-B2</td>
</tr>
<tr>
<td>Hepatitis-B3</td>
</tr>
<tr>
<td>Inject able IPV Fractional1</td>
</tr>
<tr>
<td>Inject able IPV Fractional2</td>
</tr>
<tr>
<td>Measles 1st dose</td>
</tr>
<tr>
<td>Vaccination</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>MMR</td>
</tr>
<tr>
<td>Measles 2nd dose</td>
</tr>
<tr>
<td>DPT/OPV Booster 1</td>
</tr>
<tr>
<td>DPT/OPV Booster 2</td>
</tr>
<tr>
<td>Typhoid Vaccine</td>
</tr>
<tr>
<td>TT 10 years</td>
</tr>
<tr>
<td>TT 16 years</td>
</tr>
<tr>
<td>Vitamin A Administered between 9 months and 5 years</td>
</tr>
<tr>
<td>Albendazole</td>
</tr>
<tr>
<td>Number of severely underweight provided health checkup (0-5 years)</td>
</tr>
</tbody>
</table>

### Maternal Health Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of pregnant women seen in the Urban Health Centre</td>
<td>742</td>
</tr>
<tr>
<td>Number of pregnant women given TT1</td>
<td>104</td>
</tr>
<tr>
<td>Number of pregnant women given TT2+ or Booster</td>
<td>110</td>
</tr>
<tr>
<td>Total number of pregnant women given 180 IFA tablets</td>
<td>84</td>
</tr>
<tr>
<td>No of Condoms distributed</td>
<td>2,215</td>
</tr>
<tr>
<td>No of Oral contraceptive pill cycles distributed</td>
<td>36</td>
</tr>
<tr>
<td>New RTI/STI Cases Identified</td>
<td>182</td>
</tr>
</tbody>
</table>

- Development of Health Education material (posters)
- TV Talks: Dr Puneet Misra (Rajya Sabha TV and Lok Sabha TV as expert)

### National Service Scheme (NSS) Activities at AIIMS:

#### Meetings

- Interactive International Programme with NSS Kashmiri Students under the Chairmanship of Shri Vijay Goel, Organized by Ministry of Sport and Youth Affair (MSYA) at National Stadium New Delhi on 27 April 2017
- NSS Functionaries of Delhi Meeting at India Habitat Centre with Secretary MSYA, GoI to review NSS (10 July 2017)
- Future NSS strategies by Secretary, MSYA (10 October 2017)

### AWARDS, HONOURS AND SIGNIFICANT EVENTS

- Ministry of Health, Government of India, designated Centre for Community Medicine as National Centre of Excellence and Advanced Research on Anemia Control
- Kayakalp award for Primary Health Centers: Among all the Primary Health Centers in the District Faridabad, CRHSP’s PHC Dayalpur was recognized as the best, for Kayakalp Award, while CRHSP’s second Primary Health Center, i.e. PHC Chainsa received the commendation award, for Kayakalp Award for financial year 2018-2019
- Centre for Community Medicine was re-designated as the WHO Collaborating Centre for Capacity Development and Research in Community based NCD Prevention and Control IND-113 for the second term from 2018-2022
- Dr Sanjay Rai was elected “President” of Indian Public Health Association for the year 2019-2022

### SIGNIFICANT EVENTS

**Professor Shashi Kant:** Resource person: Delivered Dr J E Park Memorial Oration at 63rd Annual National Conference of IPHA at Kakinada, Andhra Pradesh on 2 February 2019; Member of expert committee for the faculty interview at Indira Gandhi Institute of Medical Sciences, Patna, on 4 July 2018; Nominated as member of the Institute Body of All India Institute of Medical Sciences, Nagpur, October 2018; Nominated as member of Governing Body, Standing Selection Committee, Standing Finance Committee, Academic Committee, and Human Resource sub-committee of AIIMS Nagpur;
Attended the First Institute Body meeting on 18 February 2019; Attended HR Sub-committee meeting held on 19 March 2019. **Meetings Chaired:** Chaired a session on Anemia Mukt Bharat at Annual Conference of IAPSM held at Shimla, Himachal Pradesh, on 10 March 2019; Chaired Project Review Committee of ICMR, New Delhi on 20 March 2019; Chaired PRC meeting on HIV/AIDS under EMR window of ICMR, New Delhi on 26 March 2019. **Meetings attended:** Attended “Regional Conference on Scaling up the Nutritional Care of Women During Pregnancy in South Asia” held at Kathmandu, Nepal, on 7-9 May 2018; Member of expert committee for the faculty interview at Dr Ram Manohar Lohiya Institute of Medical Sciences, Lucknow, on 16 May 2018; Attended, as special invitee, the Scientific Advisory Committee meeting of ICMR-National Institute of Medical Statistics, New Delhi, on 29 November 2018; Attended 31st SAC meeting of RMRIMS, Patna on 8 December 2018.

**Professor Sanjeev Kumar Gupta** was member of Task Force to develop Operational Guidelines for Primary Care in Geriatric Care, Ministry of Health and Family Welfare, Government of India, New Delhi; Advisory Committee for development of training manuals on oral health for health workers and school teachers, at the DGHS, Government of India, New Delhi; Expert Committee for revision of the PGDMCH Programme at the Indira Gandhi National Open University, New Delhi; Tobacco Free Educational Institute Committee of the AIIMS; Life member of Jansankhya Sthirata Kosh of the Ministry of Health and Family Welfare, Government of India; Data Safety Management Board (DSMB) for the project entitled “Determination of efficacy of 9 months, 12 months and 18 months of Anti-Tubercular Treatment (ATT) for Tuberculous Meningitis (TBM): A randomized controlled, non-inferiority trial.” (PI: Dr Deepti Vibha, Associate Professor of Neurology, Neurosciences Centre, AIIMS); Main Negotiation Committee (DO) of the AIIMS; Expert on the Assessment Board for promotion of ICMR Scientist-C to Scientist-D in August 2019; was reviewer of The National Medical Journal of India, Indian Journal of Public Health, Indian Journal of Community Medicine, Public Health Nutrition, Asian Journal of Psychiatry.

**Professor Kiran Goswami** was member of National Institute and Central Regional Institute, Expert and resource person for HIV Sentinel Surveillance 2019 for Pre-HSS training, National meet RI and SACS (October 2018), State Pre Surveillance Training for states of Uttarakhand SACS at Dehradun and DSACS, Delhi (December 2018) and Field supervision and monitoring for states of Delhi and Maharashtra (January-March 2019); Technical Expert, core group for IMI Study Making Multisectoral Collaboration Work Improving vaccination coverage in India: Lessons from Intensified Mission Indradhanush, a cross-sectoral systems strengthening strategy; INCLEN study “Scoping the Pathway to Leadership in Health Research in India”; Technology Intervention for Addressing Social Needs (TIASN) SEED Division, DST; Programme Advisory Committee Meeting on SCSP, SEED Division, DST; Expert Committee Paper Setting UGC-NET Exam, November 2018; Chaired Plenary session on Anemia Mukt Bharat in 63 Annual National Conference of Indian Public health Association at Kakinada, 31 January 2019,

Newer Advances, Technologies in diagnosis and management of occupational diseases in 4th International Conference on Occupational and Environmental Health, Delhi on 17 February 2019; Attended training course on curriculum design and evaluation, NIHFW, 23-27 July 2018,

Selected participant workshop “Disarming dialogues: Speak”, 4 October 2018, University of Chicago Centre Delhi; External examiner MD Community Medicine at MAMC, Delhi, October 2018; MBBS 3rd Professional Final Exam at University of Delhi, November 2018 and February 2019, AIIMS, Jodhpur, February 2019.

**Professor Anand Krishnan** heads the WHO Collaborating Centre for Capacity Development and Research in Community based NCD Prevention and Control; Chairman, Scientific Advisory Committee, ICMR National Institute of Occupation Health, Ahmedabad; Chairman, Scientific Advisory Committee, ICMR National Institute of Research in Environmental Health, Bhopal; Member, Governing Body, National Health System Resource Centre (NHSRC); Member, WHO Working Group on Influenza Burden Estimation; Minerva network which assigns cause of death for Verbal Autopsies done under SRS, Office of the Registrar General of India; Member Post-graduate Expert Group of Medical Council of India; Was requested to draft national road safety action plan for India by WHO India; Attended WHO Meeting on Using Influenza Data for Severity and Burden Estimation Geneva, Switzerland, 28-30 November 2018; Attended WHO Technical Consultation on Non-pharmaceutical Public Health Measures for Mitigating the Risk and Impact of Epidemic and Pandemic Influenza, Hong-Kong, China, 26-28 March 2019; Provided technical support to Ministry of Health Democratic Republic of Timor Leste for development of multisectoral operational strategy for prevention and control of noncommunicable diseases, 13-18 May 2018; Attended International Conference for Emerging Infectious Diseases at Atlanta; Led the ICMR Indian Disease Burden Initiative on NCD Risk Factors; Attended National Technical Advisory Group Meeting for National NCD Monitoring Survey; Attended project review committee meeting at ICMR on CVDs, Neurology.

**Professor Baridalyne Nongkynrih** was member of National Technical Support Unit for conduct of verbal autopsy based cause of death ascertainment under Sample Registration System, Office of Registrar General of India, Ministry of Home Affairs, Government of India; Part of a WHO mission to Swaziland (Eswatini), Africa to provide technical support to adapt the WHO-PEN and train health workers in October 2018; Completed an APW with WHO HQ Geneva on “Development of training modules on diabetes, Chronic Respiratory Diseases (CRD) and Cardiovascular Diseases (CVD) for supporting
WHO PEN implementation”, July 2018; Prepared the SEAR training module on WHO Package of Essential NCD Interventions (WHO PEN) for primary care in low-resource settings among primary health care workers”; National trainer for state and district programme officers of NPCDCS programme in managerial skills and primary health care; Completed an APW with WHO SEARO developing NCD patient education materials for SEAR countries; Resource person for NPCDCS programme managers training in Aizawl, Mizoram and Shillong, Meghalaya.

Professor Puneet Misra was Selection Committee Member, Medical College, AMU, Aligarh; Post Graduate Exam paper for Gorakhpur, KGMU, AMU; ICMR task force PCOS; ICMR Task Force on GDM; Executive Board Member WISE (Women in Science and Engineering India); PhD Examiner Indian Institute of Population Sciences, MoHFW, Government of India; Expert course developer NIHFW Disaster Management Plan; Research section AIIMS, selection committee; Member Expert Committee SYST- DST at INSA, New Delhi, Tribal projects-DST at Nagaland, Yoga App of DST; TEC member ICMR on Diabetes, Metabolic Disorders, Kidney and Liver Disorders, Cardiovascular diseases; Project Reviewed for ICMR; Programme Advisory Committee Member DST, Government of India; Expert committee and paper reviewer, SEED Division, DST, Government of India; Attended meeting on need of RSV vaccine at Thailand, organized by GSK; Member NCEAR–A; Attended One Health Summit on Antibiotic Resistance; Rajya Sabha TV on Drug addiction, Rajya Sabha TV—Diabetes, Rajya Sabha TV—HIV AIDS Act, Rajya Sabha TV—Swarokar—Swacch Bharat; Participated Examinations at KGMU Lucknow, UCMS Delhi, CMC Ludhiana, LLRM Medical College, Meerut; Feasibility of starting MD course at AIIMS, Patna; Chaired Session on health and hygiene, Anemia Mukt Bharat at Nakina, February 2019; Delivered talk as panelist in plenary session on Anemia Mukt Bharat at IPHA Kakinada, February 2019; Chaired session on RCH at IAPSM Shimla, March 2019; Delivered Talk on Environment and Health at Paryavaran Kumbh of UP Government at Varanasi, December 2018; Chaired session and delivered a talk on Yoga on International Yoga Day at DST, Government of India as invited speaker, June 2018; Chaired Session at HV Sentinel Surveillance Meeting at RI-AIIMS New Delhi and delivered talk on Surveillance Issues, October 2018; Chaired a session on IEA regional conference at Bali and delivered talk, October 2018; was reviewer of PLOS One, IJCM, BMJ, Lancet Public Health, Indian Journal of Public Health, Indian Journal of Paediatrics, NMJI, BMC, International Journal of Diabeties in Developing Countries, Addictive Behaviors, International Journal of Adolescent Medicine and Health, BMC Public Health, BMC Women’s Health, BMC Infectious Disease, Biomedical and Environmental Sciences, Family Medicine and Community Health, NMJI, Proposals for DST, ICMR and many others.

Professor Sanjay Kumar Rai nominated by Panjab University, Chandigarh, West Bengal University of Health Sciences, West Bengal, and Uttar Pradesh University of Medical Sciences, Saifai, Etawah, UP, as a member of the Board of Examiners for MD Community Medicine. As an external examiner conducted MD Community Medicine examination at Government Medical College, Chandigarh, North Bengal Medical College, Darjeeling, and Uttar Pradesh University of Medical Sciences, Saifai, Etawah from 7-8 May 2018, 30-31 May 2018, and 12 July 2018 respectively; Technical Advisory Group (TAG) Member of National Iodine and Salt Intake Survey (NISI) 2018-2019 and participated in TAG meeting on 7 February 2018 at New Delhi; Nominated by National AIDS Control Organization (NACO), Ministry of Health and Family Welfare, Government of India as a “focal person” of NACO designated National Institute for HSS at AIIMS, New Delhi to provide technical assistance for HIV Sentinel Surveillance (HSS) of entire country; Made several visits to Uttar Pradesh, Bihar, Jharkhand, and Adman and Nicobar during January to March 2018 to provide technical support to HSS 2019 of these sates; Reviewed manuscript for publication in various journal e.g. “Health and Population Perspective and Issues”, Indian Journal of Public Health, Indian Journal of Community Medicine, International Journal of Epidemiology, Indian Journal of Paediatrics, NMJI etc.; Participated as technical expert to undertake field visit to Darbhanga, Bihar from 2-7 July 2018 for “Country case study development for PMNCH (Partnership for Maternal, New born, and Child Health)” on Intensified Mission Indradhanush (IMI) in India; Deputed by AIIMS examination centre to supervise the online CBT for MBBS entrance examination, and MD/MS/MDS/DM/1, and MCh entrance examination at Lucknow, and Jorhat, Assam from 26-27 May 2018, and 18 November 2018 respectively; Member of the core committee of the AIIMS under the Revised National Tuberculosis Control Programme; As a member of a multi-disciplinary team led by Director AIIMS, New Delhi, Professor (Dr) Randeep Guleria, made a visit to University College London (UCL), London, UK from 4-8 June 2018; Actively participated in meetings with UCL officials to explore the possibility of collaboration between AIIMS, New Delhi, and UCL, London; As a member of AIIMS Engineering Advisory Committee (EAC) participated in several engineering advisory committee meetings to streamline the working of engineering services; As a Professor In-Charge of store of CCM participated in budget preparation, and procurement of various items for CCM during 2018-2019; Member of the Technical Resource Group (TRG) of NACO, MoHFW, GoI on HIV Estimations in India and participated in several TRG meetings during 2018; As a member of Standing Selection Committee of ESIC, Hyderabad, and Banaras Hindu University, Varanasi, assisted for the selection of various faculty positions from 23-24 August 2018 at ESIC Hyderabad, and 23 January 2019 at BHUV, Varanasi; Elected “President” of Indian Public Health Association for the year 2019-2022; was Reviewer of Health and Population Perspective and Issues, Indian Journal of Public Health, Indian Journal of Community Medicine, International Journal of Epidemiology, Indian Journal of Paediatrics, NMJI etc.
Professor YS Kusuma Kumari was member of NCD Risk Factor Collaboration (NCD-RisC); was reviewer of ICMR, Department of Science and Technology (DST), MRC, UK; Editorial Board Member for Studies on Ethno-Medicine and Afro-Asian Journal of Anthropology and Social Policy; Adjudicator for PhD theses of JNU and Andhra University.

Dr Kapil Yadav was member of Technical Subgroup: Test and Treat: Formulation of operational guidelines for “Anemia Mukh Bharat”, GoI; Focal Point for “National Centre of Excellence and Advanced Research on Anemia Control (NCEAR-A)”, Ministry of Health and Family Welfare, GoI.

Dr Sumit Malhotra: Central Public Information Officer (CPIO) at Comprehensive Rural Health Services Project, Ballabgarh and is a member of committee amongst PIOs and First Appellate Authority with rich experience in RTIs to identify frequently sought information under RTI Act at AIIMS; Focal Point for “Innovation Learning Centre” for supporting health systems for implementation of comprehensive primary health care in Mewat, Haryana; Member of working committee for establishment of Clinical Research Unit (CRU) at AIIMS; Member of National Centre of Excellence and Advanced Research on Anaemia Control, Ministry of Health and Family Welfare, Government of India; Member of National Technical Support Unit for conduct of verbal autopsy based cause of death ascertainment under Sample Registration System, Office of Registrar General of India, Ministry of Home Affairs, Government of India; Member of National working group of IAPSM (Indian Association of Preventive and Social Medicine) on MIYCN (Maternal, Infant and Young Child Nutrition); Attended National consultation to operationalize health and wellness centres for comprehensive primary health care as part of Ayushman Bharat (1-2 May 2018); Central public health response team by Emergency and Medical Relief, Ministry of Health and Family Welfare, Government of India and was posted to flood hit Pathanamthitta District, Kerala from 3 to 14 September 2018; Provided tele-mentoring services (part of NMCM National Medical College Network) at AIIMS during RGI (Registrar General of India) supervisors training held at Agartala Medical College, Agartala and NEIGRIHMS, Shillong (January 2019); Attended ToT (Training of Trainers) on MIYCN service delivery protocols for improving MIYCN services in medical colleges of Uttar Pradesh and Bihar (17 February 2019) and serve as national level trainer for same; Attended 46th Annual National Conference of IAPSM (7-10 March 2019) at Shimla; Attended state level meeting on review of WIFS programme for out of school adolescents and launch of UDAAN scheme in Delhi (22 March 2019) by Directorate of Family Welfare, Government of NCT of Delhi.

Dr Partha Haldar was member of Technical Resource Group (TRG) for Hepatitis Surveillance in India, constituted by the National Center for Disease Control (NCDC), Ministry of Health and Family Welfare, Government of India; Member of Technical Resource Group (TRG) for HIV Self Testing in India, constituted by the National AIDS Control Organization, Ministry of Health and Family Welfare, Government of India.

Dr Ravneet Kaur was faculty for SET (Skill, e-learning and Telemedicine) facility, AIIMS and prepared skill modules on Copper–T insertion; Managing editor of Bulletin on Maternal Infant and Young Child Nutrition of IAPSM-MIYCN National Working Group; Prepared distance learning units for Postgraduate Diploma Programme in Occupational and Environmental Health, and revision of units for Postgraduate Diploma in Maternal and Child Health (PGDMCH) for IGNOU; Association of Occupational and Environmental Health (AOEH); Reviewer of journals (Indian Journal of Public Health, Indian Journal of Youth and Adolescent Health, Journal of Post Graduate Medical Education and Research); Participated as expert in three days brain storming workshop to finalize Supportive Supervision Framework and tools for engaging medical colleges in supportive supervision for MIYCN programmes under POSHAN Abhiyan.

Dr Harshal Ramesh Salve was part of team of Ministry of Health and Family Welfare and AIIMS New Delhi for Post Flood Situation analysis in District Kottayam, Kerala in September 2018; Chaired a “Scientific Session on Non-communicable Diseases” at 63rd Annual conference of IPHA in Kakinada, Andhra Pradesh (3 February 2019); Part of core team and National trainer for MInerVAnetwork for SRS by RGI, AIIMS, New Delhi; National trainer for programme managers training under NPCDCS in India; Nodal faculty member from Department for Institute Day Celebration, 2018 at AIIMS, New Delhi; Member of Disease Prevention and Outbreak Response Cell at AIIMS, New Delhi; Part of SET facility as resource faculty for Skill Based Education Training for MBBS students at AIIMS, New Delhi; Part of core team on data analysis and report writing of National NCD Monitoring Survey 2015-2016.

Dr Rakesh Kumar delivered a lecture on “Essentials of Research Methodology and Study Designs” during the workshop on advance methods in Biostatistics and Hands on Practices on Medical Data Using SPSS software at Institute of Liver and Biliary Sciences, New Delhi; was reviewer of Indian Journal of Public Health, The Journal of Obstetrics and Gynaecology of India, International Journal of Medicine and Public Health; was ___visitors delegates from Maastricht University, visited CRHSP Ballabgarh on 31 October Mr. Martin Dillon, Chief Executive Officer of Trustscreen; Fellows under School of International Biodesign were posted at CRHSP Ballabgarh from 15 February to 9 March 2018; Mr. Guo Jinaxin, Chief Executive Officer and delegates from Sinopharm Group visited CRHSP Ballabgarh on 12 March 2018; Belgium Delegation led by H.E. Mr. Mohamad Ridouani, 8 November 2018.
EDUCATION
The department is training 21 junior residents, 9 senior residents and guiding 4 PhD candidates. A competency-based training of 2 weeks for MD (Medicine) and DM (infectious disease) residents has been started. Dermatology residents are being posted on rotation for 2 weeks in these departments also.

CMEs/Workshops/Symposia/National and International Conferences
The department organized 42nd National Conference of IASSTD and AIDS, 11-13 October 2018, New Delhi.

Long/short term training
Short term training: 4 candidates received training in the department during year 2018-2019.

Lectures delivered
Vinod K Sharma
1. Training in synergy laser system for skin and aesthetic indications, Vichaivey International Hospitala Tisky Skin and Laser Surgery Centre, 7-8 January 2018, Bangkok
2. Platelet rich plasma in Vitiligo and other disorders, Spring Continental Congress of Dermatology, 25-27 April 2018, Tehran
3. Contact dermatitis India, DASS Meeting, 29 June-1 July 2018, New Delhi
4. Moderator, Syndromic Management of STI’s—Is it rational in institutional practice, Mid-year conference of Indian Association of Dermatologists, Venereologists and Leprologists, 10-12 August 2018, Tamil Nadu
6. What is new in Contact Dermatitis, CODIFICON and Aestheticasia, 21-22 September 2018, Jaipur
8. Emerging therapies in Vitiligo, 6th CCD and 44th Annual Meeting of Taiwanese Dermatological Association, 16-18 November 2018, Taipei, Taiwan
11. Pigmented cosmetic dermatitis, International Dermatology Symposium, 28-31 March 2019, South Korea

Neena Khanna
1. Cutaneous manifestations of HIV infection—Indian Scenario, HIV Congress 2018, 6-8 April 2018, Mumbai
2. How I manage resistant acne, Cosdermindia 2018, 3-5 August 2018, Mumbai
4. Are we clinically missing leprosy in era of elimination, ASDV 2018, 30 August-2 September 2018, Durban, South Africa
5. Leprosy: Experience from India, American Society of Tropical Medicine and Hygiene, Annual Meeting, 2018, 28 October-1 November 2018, New Orleans, USA

Kaushal K Verma
2. Can patch time be reduced to 24 hrs instead of 48 hrs! 8th CODFICON (Annual conference of Contact and Occupational Dermatosis Forum of India), 20 September 2018, Jaipur, Rajasthan
5. Newer concepts in patch testing, Dermazone South, IADVL South Zone Conference, 16-18 November 2018, Hyderabad, Telangana
6. Parthenium dermatitis—Pinning and killing the demon, Conference of IADVL, Andhra Pradesh State, 8-9 December 2018, Visakhapatnam
8. Air borne contact dermatitis, International Contact Dermat Research Group Symposium (ICDRG Symposium), 29-31 March 2019, Zagreb, Croatia

M Ramam
1. Peer review, Workshop on “How to peer review”, 6 April 2018, AIIMS, New Delhi
2. Clinico-pathologic correlations in pigmentary disorders, Australasian College of Dermatologists Annual Meeting, 19-22 May 2018, Gold Coast, Australia
3. My case with unusual management, Mid-Year Cuticon 2018, 8 July 2018, New Delhi
5. Pathology for dermatologists, Granulomatous inflammation, Slide Discussion, Dermatopathology CME 2018, 15-16 September 2018, Kasturba Medical College, Manipal
6. The power of the placebo effect, Cuticon-2018, 6-7 October 2018, Dharamshala
7. Drug reactions: Myth and reality, CME on Adverse Drug reactions, 6 November 2018, Sheikh Mujib Medical University, Dhaka
8. Some novel observations, 6th Taiwan Dermatopathology Conference and Continental Congress of Dermatology, 16-18 November 2018, Taipei
10. Dermatopathology of pigmentary disorders, 5th African Dermatopathology Conference, 4-5 February 2019, Kigali
11. How to look at a slide, Pattern recognition, Epidermal reaction patterns, Dermatopathology Workshop, 2-3 March 2019, AIIMS, Bhubaneshwar
12. A career in dermatology, Drug reactions: Myth and reality, CME, 6 March 2019, ESIC Medical College, Hyderabad

Binod K Khaitan
1. Pigmentary changes in systemic sclerosis: A window to severity, 11th International Congress on Autoimmunity, 16-20 May 2018, Lisbon, Portugal
3. Panel discussion: Older drugs, newer uses, MID YEAR CUTICON 2018 (IADVL DSB 2018), 8 July 2018, New Delhi

5. Non venereal genital dermatoses in males, 42nd National Conference of IASSTD and AIDS, 12 October 2018, AIIMS, New Delhi


8. Participation as delegate, 5th Annual Conference of Dermoscopy and Trichoscopy Workshop, 16-17 February 2019, Mumbai

Sujay Khandpur

1. Role of histopathology in alopecia, Dermatopathology Workshop Cum CME, 17 June 2018, Hyderabad, Telangana

2. Panelist, management of connective tissue diseases, DAAS Summit, 29 June-1 July 2018, New Delhi

3. Debate on academic dermatology versus private practice dermatology, Mid Year Cuticon 2018, 8 July 2018, New Delhi


6. Clinico histopathological pearls in dermatology, 6th Taiwan Dermatopathology Conference and Joint Meeting with 6th Continental Congress of Dermatology, 15-18 November 2018, Taipei, Taiwan


10. Essentials of histopathology in leprosy, Annual Conference of the Dermatopathology Society of India, 7-9 December 2018, Navi Mumbai, Maharashtra

11. Histopathology for residents, PGCON 2019, 24 February 2019, RML Hospital, New Delhi

12. Essentials and pre-requisites of medical photography, Asia Pacific Summit on Clinical Photography, 16-18 March 2019, New Delhi

G Sethuraman

1. My journey in epidermolysis bullosa, Pre-EB Symposium, 23 October 2018, Santiago, Chile

2. Keratinizing diseases, Ichthyosis with bullous manifestations, X International Symposium on EB, 24 October 2018, Clinica Alemana de Santiago, Santiago, Chile

3. Leprosy, Annual Chile Dermatology Meeting, 25 October 2018, Santiago, Chile

4. Emerging therapies in Ichthyosis, DERMACON 2019, 19 January 2019, Convention Centre, Bangalore

5. Vitamin D Ichthyosis Bone Health, Recent advances in Food Fortification with Emphasis on Vitamin D Deficiency in Human Health, 15-16 September 2018, Jamia Hamdard, New Delhi

Somesh Gupta


3. Managing vitiligo, 71st Annual Congress of the Dermatology Society of South Africa in conjunction with the 2nd African Society of Dermatology and Venereology (ASDV), 30 August-2 September 2018, Durban International Convention Centre, Durban, South Africa

4. Keloids and Hypertrophic Scars, 71st Annual Congress of the Dermatology Society of South Africa in conjunction with the 2nd African Society of Dermatology and Venereology (ASDV), 30 August-2 September 2018, Durban, South Africa

5. What’s new in conventional cutaneous surgery, Dermatologic Surgery, Aesthetic Dermatology and Laser Congress, 17-19 January 2019, Athens, Greece
8. Optimizing the outcome of transplantation in vitiligo, Vitiligo International Symposium, 9-11 November 2018, Detroit, USA
9. Modifications of cell suspension transplantation, Vitiligo International Symposium, 9-11 November 2018, Detroit, USA

Neetu Bhari
1. Crisaborole, New kids on the block: Should we start prescribing them, Indian Society of Paediatric Dermatology Annual Conference 2018, 31 August-2 September 2018, Goa
2. Panel discussion, New kids on the block: Should we start prescribing them, Indian Society of Paediatric Dermatology Annual Conference 2018, 31 August-2 September 2018, Goa
5. Sub cutaneous fungal infections, Pre-EB Symposium, 23 October 2018, Santiago, Chile
6. Master class: Epidermolysis bullosa, Paediatric Dermatology CME, organized by IADVL-DSB, 14 October 2018, AIIMS, New Delhi
8. Lab diagnosis in dermatology, National PG update, 23-24 February 2019, Dr RML Hospital and PGIMER, New Delhi

Vishal Gupta
1. Panel discussion, New kids on the block, Indian Society of Paediatric Dermatology Annual Conference 2018, 31 August-2 September 2018, Goa
2. Atopic dermatitis—Preventive measures, Paediatric Dermatology CME, organized by IADVL-DSB, 14 October 2018, New Delhi
3. Basic reaction patterns in dermatopathology, National CME in Dermatopathology, organized by Dermatopathology Society of India, 7-9 December 2018, DY Patil University, Navi Mumbai

Oral papers/posters presented
5. Gupta V, Primary immunodeficiency diseases: Apropos of 2 cases, Indian Society of Paediatric Dermatology Annual Conference 2018, 31 August-2 September 2018, Goa
RESEARCH

Funded projects

Ongoing

1. A phase 3 Multicenter double-blind study to evaluate the long-term safety and efficacy of baricitinib in adult patient with atopic Dermatitis, V K Sharma, Eli Lilly and Company, Rs 14.77 lakhs, 1 year, 2018-2019
2. A randomized, investigator-blind, placebo-controlled, split-head pilot study to evaluate the effects of autologous platelet-rich plasma on hair growth and lesional T-helper and T-regulatory cells expression markers in alopecia areata, V K Sharma, IADVL, Rs 5.22 lakhs, 1 year, 2018-2019
3. Defining the role of genetic, epigenetic and immunological components involved in the pathogenesis of alopecia areata, V K Sharma, ICMR, Rs 5.6 lakhs, 4 years, 2015-2019
4. Measurement of quality-of-life in patients with lichen planus pigmentosus and its comparison with vitiligo and melasma, V K Sharma, IADVL, Rs 60 thousand, 1 year, 2017
5. Comparison of clinical efficacy and safety of PUVA sol and Unani formulation UNIM-004 (oral) and UNIM-005 (LA) and sunlight in treatment of vitiligo, Neena Khanna, CCRUM, Ministry of Ayush, Rs 35.47 lakhs, 3 years, 2015-2018
6. A phase 2, multicenter, randomized, double blind, comparative study to evaluate the reduction in incidence of scarring in acne vulgaris subjects treated with combination of benzoyl peroxide (2.5%/5%), zinc oxide and polysiloxanes compared to benzoyl peroxide (2.5%/5%), Neena Khanna, Dr Reddy’s Laboratories, Rs 10.65 lakhs, 18 months, 2017-2019
8. Comparison of the efficacy of Rituximab infusion and Dexamethasone cyclophosphamide pulse in moderate to severe pemphigus vulgaris, Sujay Khandpur, ICMR, Rs 29.72 lakhs, 3 years + 9 months, 2015-2018
9. Prospective non-randomized controlled trial to compare the efficacy of subcutaneous etanercept versus oral methotrexate in moderate to severe chronic plaque psoriasis and to correlate response with Th1, Th2, Th17 and Treg cell patterns, Sujay Khandpur, Pfizer Pharmaceutical, Rs 11.61 lakhs, 2 years, 2016-2018
10. A Phase II randomized controlled trial elucidating the gene expression profile using transcriptomic analysis in children with autosomal recessive congenital ichthyosis treated with vitamin D and acitretin, G Sethuraman, DST, Rs 36 lakhs, 3 years, October 2018 to October 2021
11. A double-blind randomized trial of transplantation of cultured melanocytes from outer root sheath of plucked hair follicles vs. cultured melanocytes from epidermis, Somesh Gupta, DBT, Rs 60.27 lakhs, 3 years, 2017-2020
12. Efficacy and safety of non-cultured extracted follicular outer root sheath cell suspension and conventional epidermal cell suspension transplantation in stable vitiligo and correlation with constituent stem cell populations, Somesh Gupta, ICMR, Rs 10.59 lakhs, 1 year, 2017-Present

Departmental projects

Ongoing

1. Comparison of QOL in Pruritus
2. Immunotherapy of warts
3. Patch test in cosmetic dermatitis
4. Study of common SNP in Psoriasis and correlation with behavioral factors
5. Rituximab-long term results in Pemphigus
6. ND Yag laser in Nevus of OTA
7. Pulse Dye Laser in hypertrophic PWS
8. Study of epidemiological factors contributing to treatment failure in patients with dermatophytic infection attending tertiary care hospital in Northern India
9. A cross-sectional study to assess autonomic nervous system imbalance and its correlation with cutaneous manifestations in patients with systemic sclerosis
10. Evaluation of the effectiveness and safety of topical triple combination therapy with fractional CO2 laser and triple combination therapy alone in the treatment of Melasma in a split face randomized control study
11. To study the psychometric properties of Family Vitiligo Impact Scale, a quality-of-life scale for family members of patients with vitiligo
12. A study to evaluate the utility of providing a list of safe drugs to patients with cutaneous drug reactions
13. Dexamethasone–Cyclophosphamide pulse therapy in pemphigus
14. A descriptive study of clinical and histopathological features of acquired blaschko-linear and segmental dermatological diseases other than segmental vitiligo
15. A cross-sectional descriptive study of dermatoscopic features of disorders with hypopigmented and depigmented skin lesions
16. Efficacy of topical Rituximab encapsulated in nanoparticle in patients of oral pemphigus vulgaris - a randomised double blind placebo controlled trial
17. A split tattoo randomized controlled trial comparing the efficacy of single sitting of three passes versus three sitting of single pass of Nd-YAG laser in the treatment of blue/black tattoos
18. Development of artificial intelligence driven mobile phone application for dermatological disease diagnosis to assist non specialists
19. Testing the performance of artificial intelligence driven mobile phone application for the diagnosis of common skin disease
20. Study of vaginal microbiome and metabolome in women with Bacterial Vaginosis (BV) and healthy controls
21. Comparison of non-cultured extracted hair follicle outer root sheath cell suspension with non-cultured epidermal cell suspension in repigmentation of leukotrichia in vitiligo
22. Comparison of levocetirizine up-dosing vs combination of levocetirizine and desloratadine in chronic spontaneous urticaria not responding to standard dose of levocetirizine, A randomized open-label trial
23. A study to assess the clinico-investigative profile of patients with periorbital hyperpigmentation and controls and to assess the utility of dermatological investigations in the classification of periorbital hyperpigmentation

Completed

1. Defining MiRNA signatures in vitiligo and skin pigmentation
2. Elucidating role FoxP3 promoter DNA methylation Level in active non-segmental generalized vitiligo
3. Evaluation of effectiveness of combination of isotretinoin with terbinafine and terbinafine alone in the treatment of recurrent dermatophytosis
4. Patch testing with mercapto mix with a high content of 2-mercaptobenzothiazole
5. Patch testing with a Methlchloroisothiazoline/methylisothiazolinone mix with a higher concentration of methylisothiazoline
6. Development of a scale to measure the psycho-social impact of vitiligo in family members of patients
7. An investigator initiated trial to assess the efficacy and safety of adalimumab biosimilar (Exemptia; ZRC-3197) in patients of psoriatic arthritis with concomitant moderate to severe chronic plaque psoriasis: An open labelled prospective pilot case series
8. Assessment of liver fibrosis by ultrasound elastography in patients of psoriasis and Reiter’s disease on long term methotrexate therapy
9. A split face randomized study comparing the efficacy and safety of microneedling and fractional CO2 Laser in acne scars
10. A split face randomized control study comparing the efficacy and safety of intralesional radiofrequency assisted subcision versus Conventional subcision in post acne scars

Collaborative projects

Ongoing

1. Study of herbal hair dyes for detection of PPD and other chemical dyes, Department of Dermatology, AIIMS Rishikesh
2. To evaluate the role of CD4 TCR δ in leprosy patients, Biochemistry
3. Improvement on levothyroxine replacement of clinical, biochemical, hormonal and insulin sensitivity parameters in women with Polycystic Ovary Syndrome (PCOS) presenting with subclinical hypothyroidism, Endocrinology
4. Evaluation of prevalence, regional phenotypic variation, co morbidities, risk factors and the variations in response to different therapeutic modalities among Indian women with Polycystic Ovary Syndrome (PCOS): A multicenter study across India (ICMR-PCOS task force), Multicentric study
5. Development of a population based leprosy Registry (PBLR) and New Case Detection Strategies (NCDS) to eradicate leprosy in urban areas (Funded project), Collaborative project, TLM Shahdara
6. Radioactive skin patches for treatment of basal cell carcinoma and keloids, Nuclear medicine
7. Study of T cells and its scavenger receptor in the pathogenesis of pemphigus vulgaris, Biochemistry
8. Role of gamma-delta T-cells in pemphigus vulgaris, Biochemistry
9. Analysis of the diagnostic and/or predictive potential of metabolomics in bacterial vaginosis, its treatment failure, relapse and susceptibilities to other sexually transmitted infections, NMR&MRI Facility
10. Autologous fat transfer for orbital volume augmentation in sockets with small non-seeing eyes, Department of Ophthalmology
11. A randomized, investigator-blinded, placebo-controlled, split-head pilot study to evaluate the effects of autologous platelet rich plasma on hair growth and lesional T-helper and T-regulatory cells, Physiology
12. Measurement of quality-of-life in patients with lichen planus pigmentosus and its comparison with vitiligo and melasma, Psychiatry

PUBLICATIONS
Journals: 49    Abstracts: 2    Chapters in Books: 14    Books: 1

PATIENT CARE
The department has 29 bedded ward including two isolation rooms. The total number of long admissions from April 2017 to March 2018 were 724 and total short admissions were 2182. The OPD caters to both general dermatology patients (in first half) and special clinics (STD, Leprosy, Dermatosurgery, Pigmentation, Allergy, Paediatric Dermatology, Photodermatology) and lasers (Diode, Carbon dioxide, NdYAG laser, Pulse Dye laser) in afternoon. Side lab procedures and dermatosurgery procedures are conducted in both morning and afternoon. According to census, 34,729 new cases were attended in Out patient department and total number of old patients were 28,908. One senior resident is visiting Ballabgarh for skin OPD twice a week and the department has started community dermatology OPD services in Jhajjar twice a week.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Kaushal K Verma was Regional Chairman, International Union against Sexually Transmitted Infections-Asia Pacific Region (IUSTI-AP); Inaugurated International Union against Sexually Transmitted Infections-Asia Pacific (IUSTI-AP) and New Zealand Sexual Health Society (NSHS) joint conference at Auckland, New Zealand and delivered key note welcome address at the inaugural function; Chaired a plenary session on “Dissecting STI Transmission using Genomics”, “Global and Regional Epidemiology of syphilis” and “The Activity of Enjoyment for Innovation in Sexual Health Programmes and Practice” at the IUSTI-AP and NSHS conference at Auckland, New Zealand; Chaired the Executive Committee meeting of the office bearers and General Assembly of the International Union against Sexually Transmitted Infections-Asia Pacific Region (IUSTI-AP) as its Regional Chairman at Auckland, New Zealand; Invited to deliver lecture and training tips on Lasers at Laser Centre of University of Auckland, New Zealand; Participated in International Contact Dermatitis Research Group (ICDRG) Board Meeting held on 28 March 2019 at Zagreb, Croatia; Contributed to Community
Service Health Care Programme at Laddakh from 24-30 September 2018; Participated as an Expert in live phone-in Show “Health Show” on 19 May 2018 at DD National, Prasar Bharati; Expert to the Standing Selection Committee meeting for selection of Assistant Professors in the Department of Skin and VD at Indira Gandhi Institute of Medical Sciences, Patna, Bihar; Participated as an expert in a show on “Safe and Happy Holi” on “DD Science”, Vigyan Prasar, Department of Science and Technology (DST); Participated as an expert in live phone-in show “Good Evening India” on 20-03-2019 at DD National, Prasar Bharati.

Professor M Ramam was President, Dermatopathology Society of India; Vice-President, Asian Society of Dermatopathology; Editor-Emeritus, Indian Journal of Dermatology, Venereology and Leprology; Ombudsman, Indian Dermatology Online Journal; Editorial Board member, Journal of Cutaneous Pathology; Visiting Professor, University of California, San Francisco.

Professor Binod K Khaitan was Chairperson in one plenary session, ASPCR-SLCD 2018, 9th Conference of Asian Society for Pigment Cell Research and 26th Annual Academic Sessions of Sri Lanka College of Dermatologists, 15-18 August 2018, Sri Lanka.

Professor Sujay Khandpur was awarded “Dr KC Kandhari memorial award” 2018 by IADVL Delhi Branch for overall contribution to field of Dermatology; My paper “Angioma like carcinoma telangiectoides: An unusual presentation of breast carcinoma metastasis” awarded best Letter to Editor in IJDVL 2018; Selected President elect of IADVL Delhi Branch; Selected as Associate Editor of IADVL Textbook of Dermatopathology; Secretary, Dermatopathology Society of India, 2018-19; Member, Special Interest Group of Dermatopathology, IADVL.

Professor G Sethuraman received AIIMS Research Excellence Award 2018 for the following paper:


Dr Neetu Bhari was Organizing Secretary, 42nd National Conference of IASSTD and AIDS, 11-13 October 2018, AIIMS, New Delhi; Assistant Editor, Indian Journal of Dermatology, Venereology and Leprology; Two-week observership in Epidermolysis bullosa at Santiago, Chile, funded by DEBRA, Chile; Participated as an Expert in live Show “Good Evening India” on 18-03-2019 at DD National, Prasar Bharati; Selected as Assistant Editor of IADVL Textbook of Dermatopathology.

9.10. Emergency Medicine

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<thead>
<tr>
<th>Professor and Head</th>
<th>Praveen Aggarwal</th>
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<tr>
<td>Professors</td>
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<tr>
<td>LR Murmu</td>
<td>Sanjeev Kumar Bhoi</td>
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<td>Nayer Jamshed</td>
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<td>Tej Prakash</td>
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<td>Prakash Ranjan Mishra (Contract)</td>
<td>Ritin Mohindra (Contract)</td>
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HIGHLIGHTS

The department has been in the forefront of providing round-the-clock, holistic and world-standard emergency care to patients with different types of medical, pediatric and non-traumatic surgical, as well as some of the traumatic emergencies. Nearly 1,45,000 patients visited the department in the year 2018-2019. The department has been providing training to its postgraduates in the specialty of Emergency Medicine since July 2012. The departmental faculty is also involved in teaching and training of postgraduates from other departments (including Medicine, Surgery, Geriatric Medicine and several others), undergraduate students, nursing students and paramedics in the field of emergency medicine including life support courses. The department is also involved in training the existing and future faculty from other colleges and hospitals in the specialty of Emergency Medicine.
Under the aegis of the Ministry of Health and Family Welfare, the department is involved in developing guidelines for comprehensive primary health care for burns and trauma as well as for Emergency Department at District Hospitals under the Ministry. In collaboration with South East Asia Region, WHO, the department is also involved in formulating guidelines on road safety, injury prevention, as well as integration of emergency and trauma care in India. Under the AIIMS Quality Improvement Programme, Emergency Medicine Department has started several projects to further improve patient care and outcome. This has also resulted in shorter stay of patients. At international level, the department has been actively collaborating with several universities from the USA with the aim of training doctors, nurses and paramedics. Some of these Universities include University of South Florida and SUNY Downstate New York.

EDUCATION

The faculty organized life support courses for undergraduates, postgraduates and nurses posted in the department. It has conducted AIIMS Emergency ECG and rapid sequence intubation courses for the postgraduates of Institute as well as other colleges. The department runs a schedule of academic activities for the residents of Emergency Medicine (seminars, journal clubs, case discussions) once a week for 6 hours. Education and skills are imparted to residents on the use of ultrasound in emergency care of patients. Simulation-based teaching (both table-top and on high-fidelity simulator) is imparted to the residents. In addition, the department faculty was involved in didactic teaching of undergraduates, postgraduates and nursing students through lectures and seminars.

The department imparted short term training to three undergraduate students from other countries.

CONTINUING MEDICAL EDUCATION

Conferences/seminars/workshops organized

1. Valedictory function of round table meeting promulgation of emergency nursing in SEAR, JPN Apex Trauma Centre, AIIMS, 3 April 2018, New Delhi
2. Preparatory meeting for Promulgation of Emergency Nursing in SEAR, AIIMS, 2-4 April 2018, New Delhi
3. Medwork 2018 Conference, Rohilkhand Medical College and Hospital, 7-8 April 2018, Bareilly, UP
4. Comprehensive Life Support Course, JPN Apex Trauma Centre, AIIMS, 12 April 2018, New Delhi
5. Emergency Medicine Sonography EMSONO Course, JIPMER, 14-15 April 2018, Puducherry
6. Tactical Combat Casualty Care Course, JPN Apex Trauma Centre, AIIMS, 18 April 2018, New Delhi
7. Workshop on “Management of agitated patient in Emergency Department” in National CME on consultation Liaison Psychiatry, AIIMS, April 2018, New Delhi
8. Symposium on Trauma Management and Injury Prevention, JPN Apex Trauma Centre. AIIMS, 20-21 April 2018, New Delhi
10. Tactical Combat Casualty Care Course, JPN Apex Trauma Centre, AIIMS, 11 May 2018, New Delhi
11. Tactical Combat Casualty Care Course, JPN Apex Trauma Centre, AIIMS, 9 June 2018, New Delhi
12. Instructor and leadership meeting of nursing of instructors, JPN Apex Trauma Centre, AIIMS, 13 June 2018, New Delhi
14. Workshop on Triage Protocol, JPN Apex Trauma Centre, AIIMS, 22 June 2018, New Delhi
15. Basic ECG for Nurses, JPN Apex Trauma Centre, AIIMS, 23 June 2018, New Delhi
16. Basic Life Support, JPN Apex Trauma Centre, AIIMS, 9 July 2018, New Delhi
17. EMIndia 2018, Banaras Hindu University, 21-22 July 2018, Varanasi, UP
19. First Aid in Trauma Course, Seminar Room, JPNATC, 30 July 2018, New Delhi
20. Inaugural Ceremony of THIHMS Medical College, THIHMS, 1 August 2018, Arunachal Pradesh
21. Emergency Medicine (Department Class), ATSSF, JPNATC, 4 August 2018, New Delhi
22. BECC/BLS Training for CRPF, ATSSF, JPNATC, 8-9 August 2018, New Delhi
23. EM Sono, ATSSF, JPNATC, 10-11 August 2018, New Delhi
24. Meeting on regional strategy to integrate emergency and trauma care system into primary health care, Phuket, 23-25 August 2018, Thailand
25. Advance Ultrasound Trauma Life Support, ATSSF, JPNATC, 14-15 September 2018, New Delhi
31. Comprehensive Life Support Course for BRO, ATSSF, JPNATC, 26 October 2018, New Delhi
32. Meeting of programme managers for road safety and injury prevention to support implementation of the PHUKET Commitment, Kathmandu Nepal, 12-14 November 2018, Nepal
33. Provider Course Rajasthan Capacity Building Programme, ATSSF, JPNATC, 16-18 November 2018, New Delhi
34. Basic Emergency care Course for CRPF, ATSSF, JPNATC, 22 November 2018, New Delhi
35. Instructor Course for Rajasthan Doctors, ATSSF, JPNATC, 26 November 2018, New Delhi
36. World academic congress of emergency medicine, 30 October to 4 November 2018, Doha, Qatar
37. Basic Emergency care Course for CRPF, ATSSF, JPNATC, 13 December 2018, New Delhi
38. Workshop on Basic ECG, ATSSF, JPNATC, 19 December 2018, New Delhi
39. Cadaveric Advanced Ultrasound Guided preoperative and Regional Anaesthesia workshop, New Delhi, 11-13 January 2019, New Delhi
40. AUTLS course at MEDINSPIRE 2019 Conference, DY Patil University, 14 February 2019, Mumbai
41. 4th National Emergency Medicine Board Review of India Course (NEMBRIC), National Board of Examinations, 16-20 February 2019, New Delhi
42. Simulus 4, AIIMS, 3 March 2019, New Delhi
43. 1st International Conference and Workshop on Cost Effective Use of Technology in Health Neuroscience, 28-31 March 2019, Goa
44. National Building workshop on Road Safety, Kathmandu Nepal, 21-22 March 2019, Nepal
45. Annual National Conference of Pedi STARS Shaping the Safety Culture, AIIMS, 27 February-3 March 2019, New Delhi
46. Cadaveric Advanced Ultrasound Guided preoperative and Regional Anaesthesia workshop, New Delhi, 11-13 January 2019, New Delhi

Lectures delivered

Praveen Aggarwal
1. Too Fast, Too Slow—Case discussion, EMINDIA 2018, 21-22 July 2018, Institute of Medical Sciences, Banaras Hindu University, Banaras
2. High-risk Emergency Medicine—Missed SAH, Missed ACS, Testicular torsion, vertigo and stroke (Panel discussion), EMINDIA 2018, 21-22 July 2018, Institute of Medical Sciences, Banaras Hindu University, Banaras
4. Pharmacodynamic Drug-Drug Interactions (in Polypharmacy Toxicology in Emergency Department Symposium), World Academic Congress of Emergency Medicine, 1-4 November 2018, Doha, Qatar
5. Expert Opinions on Sepsis Care in the Emergency Department (Moderator), World Academic Congress of Emergency Medicine, 1-4 November 2018, Doha, Qatar
6. Acute Toxicology and Pharmacology, 4th National Emergency Medicine Board Review of India Course (NEMBRIC), Organized by Academic College of Emergency Experts in India, 16-20 February 2019, National Board of Examinations, New Delhi
7. Injuries to Bones and Joints, 4th National Emergency Medicine Board Review of India Course (NEMBRIC), Organized by Academic College of Emergency Experts in India, 16-20 February 2019, National Board of Examinations, New Delhi

Nayer Jamshed
1. Cardiotoxic drugs in India, 17th Annual Scientific Congress of Asia Pacific Association of Medical Toxicology, 15-18 November 2018, Bali, Indonesia
2. Toxidromes in poisoning, Medinspire, 14-17 February 2019, DY Patil College, Navi Mumbai
3. Nerve agents, Medinspire, 14-17 February 2019, DY Patil College, Navi Mumbai
4. Vesicants in chemical disaster, Medinspire, 14-17 February 2019, DY Patil College, Navi Mumbai

**Meera Ekka**

1. ECG changes in electrolyte imbalance and drug toxicity, AIIMS Emergency ECG Course, 7 May 2019, AIIMS, New Delhi
3. Cardiotoxic Plants in India, 17th Annual Scientific Congress of Asia Pacific Association of Medical Toxicology, 18 November 2018, Bali, Indonesia
4. ECG changes in electrolyte Imbalance and drug toxicity, AIIMS Emergency ECG Course, 26 November 2018, AIIMS, New Delhi
5. Managing emergencies in secondary level hospital, CME for training of doctors of Coal India Limited, 7 March 2019, AIIMS, New Delhi
6. Surgical airway, Cadaveric skill development workshop for Post Graduates, 23 March 2019, AIIMS, New Delhi

**Akshay Kumar**

1. Bradyarrhythmia, AIIMS Emergency ECG Course, 7 May 2018, CMET, AIIMS, New Delhi
2. Cardiopulmonary Resuscitation, Critical Care Training for Nurses, 10 May, MS Seminar Room, New Delhi
3. Facilitating Group Work and Project Building, LAQSHYA—National Programme of Government of India to provide Respectable Maternal Care, 17 and 18 August 2018, Board Room, AIIMS, New Delhi
4. Needs assessment in Medical Education, Content Development Workshop, 28 September 2018, SET Facility, AIIMS, New Delhi
5. Primary assessment of Critical Patient, Acute Critical Care Course—Lead Faculty, 8-10 October 2018, Mini Auditorium, SGPGI, Lucknow
6. Approaching a patient of Altered Sensorium, Acute Critical Care Course—Lead Faculty, 8-10 October 2018, Mini Auditorium, SGPGI, Lucknow
7. CPR—AVI Module Developing, Content Development for SET—Medical Education for UG students, October 2018, SET Facility, AIIMS, New Delhi
8. Bradyarrhythmia, AIIMS Emergency ECG Course, 26 November 2018, SET Facility, AIIMS, New Delhi
9. Approaching a patient with Sepsis, Acute Critical Care Course for Interns—Lead Faculty, Organizer and Facilitator, 8-9 December 2018, SET Facility, AIIMS, New Delhi
10. Approaching a patient with Altered Sensorium, Acute Critical Care Course for Interns—Lead Faculty, Organizer and Facilitator, 8-9 December 2018, SET Facility, AIIMS, New Delhi
11. Communication Skills in Critical Setting, Acute Critical Care Course for Interns—Lead Faculty, Organizer and Facilitator, 8-9 December 2018, SET Facility, AIIMS, New Delhi
12. Implementing Change Ideas and Facilitating Workshop, Simulation based learning for improving ‘preterm baby care’ using point of care quality improvement approach, 11 January 2019, SET Facility, AIIMS, New Delhi
13. Implementing Change Ideas, EM Karnataka—Quality Improvement Workshop—Chief Faculty and Facilitator, 18-19 January 2019, St. John’s Medical College, Bangalore
14. Quality improvement for an academic institution, EM Karnataka—Quality Improvement Workshop—Chief Faculty and facilitator, 18-19 January 2019, St. John’s Medical College, Bangalore
15. Implementing Change Ideas, LAQSHYA National Programme of Government of India to provide Respectable Maternal Care, 21 January 2019, Vasant Kunj, New Delhi
16. Needle Tracking using Ultrasound, Skills Day for Emergency Medicine—Faculty, Organized and Facilitated, 23 and 30 March 2019, SET Facility and Trauma Centre, AIIMS, New Delhi

**Prakash Mishra (On Contract)**

1. Wide complex tachycardias, AIIMS Emergency ECG Course, 7 May 2019, AIIMS, New Delhi
2. ACLS and Arrest rhythms, AIIMS Emergency ECG Course, 7 May 2019, AIIMS, New Delhi
3. RUSH protocol: Tank and e-FAST, EM-SONO (Emergency sonography workshop), 10 August 2018, JPNATC, AIIMS, New Delhi
4. Tele ECG, CEUTEH (Cost-effective use of technology in health care), 23 October 2018, JPNATC, AIIMS, New Delhi
5. Wide complex tachycardias, AIIMS Emergency ECG course, 26 November 2018, AIIMS, New Delhi
6. Approach to Electrocardiogram, ACCC (Acute critical care course for Interns), 8 and 9 December 2018, AIIMS, New Delhi
7. Skill station instructor during USG workshop, PULMOCRIT, 28 February and 1 March 2019, AIIMS, New Delhi

Oral papers/posters presented
2. Brunda R, Aggarwal P. Unusual case of palpitations: Left atrial aneurysm (CPC), World Academic Congress of Emergency Medicine (WACEM 2018), November 2018, Hajjar Auditorium, Hamad General Hospital, Doha, Qatar

RESEARCH
Funded Projects
Ongoing
1. A country-level assessment of the current status of emergency and injury care at secondary and tertiary care centres in India, Sanjeev Bhoi, Niti Ayog, 6 months, 2018-2018, Rs 60 lakhs
2. To study the efficacy of Chitosan in achieving haemostasis in patients with acute traumatic wound presenting to emergency department, Sanjeev Bhoi, DRDO, 1 year, 2018-2019, Rs 55 lakhs
3. To study the role of gene expression activation of cellular signaling pathway and its correlation with clinical outcome among trauma hemorrhagic shock, Sanjeev Bhoi, ICMR, 1 year, 2018-2019, Rs 66 lakhs
4. To study the pattern of hematopoietic progenitor cells and G-CSF among trauma hemorrhagic shock, Sanjeev Bhoi, ICMR (RA Fellowship), 1 year, 2018-2019
5. Impact of alcohol on dysregulation of inflammation and recovery of trauma hemorrhagic shock patients, Tej Prakash, AIIMS, 2 years, 2018-2019, Rs 9.5 lakhs

Departmental Projects
Ongoing
1. Evaluation of Biolog-ID solution (A RFID based system) for Red Blood cell traceability and inventory management
2. To study the risk of major adverse cardiac events within 30 days of emergency department presentation in patients with acute onset chest pain categorized as low risk group based on HEART pathway
3. USG guided Ryles tube insertion and confirmation
4. Role of point of care ultrasound in patients with cardiac arrest in Emergency Department
5. To determine the improvement in outcome and management of acute exacerbation of Chronic Obstructive Pulmonary Disease (COPD) in emergency department by implementation of COPD bundle
6. To study the clinical profile and pattern of complications related to chronic kidney disease among patients visiting emergency department
7. To determine the optic nerve sheath diameter by ultrasound in pediatric patients with increased intracranial pressure compared with control group
8. Role of triple rule out dual energy CT in patients presenting with acute chest pain in emergency setting
9. Reducing door to reperfusion time in ST elevation myocardial infarction patient: Quality Improvement study in the department of Emergency Medicine, AIIMS, New Delhi
10. Comparison of three scoring systems (AIMS 65, pre-endoscopic Rockall, Glasgow Blatchford) to predict 1 week outcome in patients presenting to Emergency Department with acute upper gastrointestinal bleeding
11. Water-bath ultrasound technique in the evaluation of distal hand and foot injuries in the Emergency Department
12. Clinical profile of patients with rheumatic heart disease presenting to Emergency Department
13. Outcome of patients receiving cardiopulmonary resuscitation in the Department of Emergency Medicine, AIIMS, New Delhi
14. q-SOFA scores as a predictor of 7 and 30 days mortality in patients with suspected infection presenting to the Emergency Department
15. Biochemical markers for the prediction of outcome in patients of cardiac arrest
16. Comparison of Full Outline of Unresponsiveness (FOUR) score with Glasgow Coma Scale (GCS) for assessment of patient with altered sensorium in Emergency Department
17. Ensuring blood cultures and reducing the timing of first dose of antibiotic administration in sepsis patients: Quality improvement study in Department of Emergency Medicine, AIIMS, New Delhi
18. To study the diagnostic characteristics of point of care ultrasound in blunt trauma chest patients
19. Evaluation of diagnostic characteristics of point-of-care ultrasound in identification of maxillofacial fractures as compared to CT scan
20. Prospective observational study of transfusion practices in severely injured trauma patients in Emergency Department at level 1 Trauma Center
21. Efficacy of emergency medicine residents to correctly detect the etiology of acute dyspnea using BLUE protocol
22. Clinical profile of patients requiring emergency airway management in Department of Emergency Medicine
23. Assessing the serum chymase level as an early predictor of dengue severity
24. Evaluation of diagnostic characteristics of neutrophil-lymphocyte ratio in comparison to commonly used stores (APACHE II, CTSI and BISAP) in acute pancreatitis
25. Biochemical markers for prediction of outcome in patients of cardiac arrest
26. Evaluation and appraisal of triage protocol of AIIMS in terms of mortality
27. Feasibility of USG guided objective initial assessment of pupillary size and pupillary reflex vs clinical examination in patients with altered mental status

Completed
1. Perception of workplace violence in the Emergency Department
2. Accuracy of urinary Multistix 10 SG leukocyte esterase reagent strip test in making the diagnosis of spontaneous bacterial peritonitis
3. Utility of urinary toxicology screen in patients with undifferentiated altered level of consciousness presenting to the Emergency Department
4. Profile of acute poisoning cases in ED

PUBLICATIONS
Journals: 7

PATIENT CARE

1. Number of patients attended Emergency services

<table>
<thead>
<tr>
<th>Total new patients</th>
<th>Total revisit patients</th>
<th>Total patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,03,455</td>
<td>46,083</td>
<td>1,49,538</td>
</tr>
</tbody>
</table>

2. Point of Care Testing Laboratory (POCT) data

<table>
<thead>
<tr>
<th>Test type</th>
<th>Total test done</th>
<th>Grand total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete blood count</td>
<td>1,01,903</td>
<td></td>
</tr>
<tr>
<td>Quantitative Troponin I</td>
<td>10,031</td>
<td></td>
</tr>
<tr>
<td>Blood gas analysis</td>
<td>91,754</td>
<td></td>
</tr>
<tr>
<td>BNP and NT proBNP</td>
<td>1,263</td>
<td>2,07,376</td>
</tr>
<tr>
<td>D Dimer</td>
<td>774</td>
<td></td>
</tr>
<tr>
<td>Urine Tox screen</td>
<td>651</td>
<td></td>
</tr>
<tr>
<td>PT/INR</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>Procalcitonin</td>
<td>200</td>
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</tr>
</tbody>
</table>
3. Procedures done in Emergency OT

<table>
<thead>
<tr>
<th>Name of procedure</th>
<th>Total number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracheostomy</td>
<td>233</td>
</tr>
</tbody>
</table>

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Our postgraduate student, Dr Brunda won the first prize in the Clinico-Pathological Case (CPC) presentation in the CPC competition held at Hajjar Auditorium, Hamad General Hospital, Doha, Qatar during the World Academic Congress of Emergency Medicine (WACEM) 2018.

Professor Praveen Aggarwal became the Chief Editor of the Journal of Emergencies, Trauma and Shock, an international journal indexed in PubMed. He also continues to be a member of Signal Review Panel of the Central Drugs Standard Control Organization and the Indian Pharmacopoeia Commission for the Pharmacovigilance Programme of India, Member of Scientific Body, Indian Pharmacopoeia Commission, Ministry of Health and Family Welfare, Government of India. He has been selected as the Vice-President of the Academic College of Emergency Experts in India and Joint Secretary of Organized Medicine Academic Guild of India which is a Guild of major medical associations and societies in India with the aim to formulate national policies in term of patient care, education and research.

Professor Sanjeev Kumar Bhoi has been designated as the Head of WHO collaborating Centre in Emergency and Trauma for the South East Asian region which has been designated at the JPNATC. Co-ordinated several indigenously designed courses in emergency medicine and is the Course Director of these courses and teaches various topics during these courses.

Dr Jamshed Nayer was involved in improvement of Triage and Screening area of the department. He is actively involved in training residents using high-fidelity simulator. He is in-charge of post-graduate teaching schedule which includes weekly seminars, journal club, Tintinalli’s textbook-based topical discussion, evidence-based medicine and clinical case discussions. Actively involved in prevention of violence in the Emergency Department by continuous interaction with patients and their relatives. He participated in developing guidelines for Emergency Ambulance Services for Ministry of Health. He is nodal officer of the department for the curriculum revision for MBBS Course at AIIMS, New Delhi. He is a teaching faculty for the SET Lab AIIMS.

Dr Tej Prakash has coordinated several indigenously designed courses in Emergency Medicine and is the Course Director of a number of these courses. He teaches various topics during these courses. He is actively involved in training post graduates in Trauma Care, sonography in emergencies as well as skill development using cadavers.

Dr Meera Ekka is reviewer of several Journals and is on editorial board of Annals of Clinical Case Studies. She received training on “Basic course in medical education” at CMET, AIIMS, New Delhi. She developed new skill module for skill learning on “Needle Decompression in pneumothorax” for MBBS student in skill lab, SET facility, and is the Incharge of teaching and assessment of MBBS students. She is the Faculty Incharge, store for the Department of Emergency Medicine. She is involved in initiation of Triage and Screening OPD in the department.

Dr Akshay Kumar led several quality improvement projects in the department after testing several change ideas to streamline timely and efficient patient care in the Emergency Department. He organized several high and low fidelity simulation and hands-on skill training programmes for the academic and non-academic residents of the department. He organized several First Responder Courses for paramedical staff, trolley boys and security guards in the department. He actively participated in the Faculty Development Workshops on Medical Education at AIIMS, New Delhi.

Dr Prakash Ranjan Mishra continued to hold AIIMS Emergency ECG Course for the post-graduates for training in interpreting ECGs in emergency settings. He was also involved in quality improvement projects.

Dr Ritin Mohindra was involved with planning and implementation of quality improvement programmes. He was actively involved in coordinating with other hospitals for smooth care after transfer from Department of Emergency Medicine.
### 9.11. Endocrinology and Metabolism

**Professor and Head**
Nikhil Tandon

**Professors**
Nandita Gupta
Ravinder Goswami
Rajesh Khadgawat
Viveka P Jyotsna

**Assistant Professors**
Yashdeep Gupta
Alpesh Goyal
(from 2 January 2019)

**HIGHLIGHTS**
The department is engaged in many academic activities such as Endocrine-Pathology Conference every alternate week, Endocrinology-Surgery-Nuclear Medicine (Wednesday) and Endocrinology-Radio Diagnosis (Friday) meet every week. There are Seminar (Wednesday), Journal Club (Friday) and Clinical Class (Thursday) every week. During these academic events the topics of clinical importance and recent high impact articles are discussed. The department runs daily outpatient facilities, has state of the art laboratory services for hormone assays, metabolic studies and bone density measurement.

**EDUCATION**

**Undergraduate, Postgraduate, Paramedical Training**
The department was actively involved in teaching undergraduate medical and nursing students. Postgraduate students (MD) from Internal Medicine and Geriatric Medicine come for one and two month postings to the department. In addition, postgraduate fellows enrolled in MCh Breast and Endocrine Surgery, DM Nuclear Medicine and MSc Reproductive Biology also rotated for a period of 2-4 weeks in the department.

**Long and Short Term Training**

- Two candidates joined the DM course (One General, One Sponsored)
- Three candidates permitted for short term training

**Lectures delivered**

**Nikhil Tandon**

3. Osteoporosis and Metabolic Bone Disease: Cases for Discussion, Indian Society for Bone and Mineral Research (ISBMR) Osteoporosis Essential Course, 5-6 May 2018, Mumbai
5. Physical Activity, International Society for Cardiovascular Disease Epidemiology and Prevention: Ten-Day International Teaching Seminar, 17-29 June 2018, Goa
6. Technology and Task Shifting—Improving Quality of Diabetes Care, International Society for Cardiovascular Disease Epidemiology and Prevention: Ten-Day International Teaching Seminar, 17-29 June 2018, Goa
7. Straddling both worlds: Clinician and Investigator, International Society for Cardiovascular Disease Epidemiology and Prevention: Ten-Day International Teaching Seminar, 17-29 June 2018, Goa
8. Oration: Diabetes and Heart, Armed Forces Medical College (AFMC), Pune, 9 August 2018, AFMC, Pune
9. Hypophosphatemic osteomalacia, Armed Forces Medical College (AFMC), Pune, 9 August 2018, AFMC, Pune
10. Overview and Status Update of the I-TREC project, 2nd Bi-Annual NHLBI T4 Translation Research with Lower-Middle Income Countries (Hy-TREC) Consortium Workshop, 9-12 September 2018, Dhulikhel, Nepal
11. Diabetic Retinopathy, Indian Institute of Public Health (IIPH), 16 September 2018, Hyderabad
12. Addressing Non-Communicable Diseases through Medical Education and Health Services, Medical Education Work: Christian Medical College, 8 October 2018, Webinar, Vellore

13. Young Diabetes Registry, 44th International Society for Paediatric and Adolescent Diabetes (ISPAD) Conference, 12 October 2018, Hyderabad

14. State of diabetes care in India: Tools for right impetus, IMPACT India: The 1,000 day challenge, 13 November 2018, New Delhi

15. Breaking the boundaries between basic and clinical research, Wellcome DBT India Alliance 10 year Celebrations, 13 November 2018, India Habitat Centre, New Delhi


17. Cause for Concern: Growing Lifestyle Diseases, FSSAI Eat Right Mela, 15 December 2018, Indira Gandhi National Centre for Art, New Delhi

18. Technology-enabled interventions to improve healthcare delivery: Evidence from randomized trials, Wellcare Dissemination Meeting, 4 January 2019, Chandigarh

19. Diabetes, Obesity and other Metabolic Conditions: The Key Achievements at the National Level and the Future Road Map, 106th Indian Science Congress, 5 January 2019, Lovely Professional University, Phagwara

20. Primary Hyperparathyroidism: A Primer for Physicians, 2nd Annual Conference of Society for Promotion of Education in Endocrinology and Diabetes (SPEEDCON 2019), 2 February 2019, Gurugram


22. Epidemiology of NCD’s, Conference on Promoting Food and Nutrition for Health and Wellbeing, 15 March 2019, NAMS Auditorium, New Delhi


24. MEN Syndrome: An update, Mid-Term ESICON, 24 March 2019, UCMS, New Delhi


Ravinder Goswami

1. Hypoparathyroidism in India, “RSSDI, West Bengal Chapter and Endocrine Society of Bengal, 13 May 2018, Kolkata

2. Hypoparathyroidism: Recent Advances in India, Annual Conference of the Endocrine Society of India ESICON 2018, 17-18 November 2018, MAYFAIR Convention, Bhubaneswar

Rajesh Khadgawat

1. Hypercalcemia: 51 years old male bone pain and drowsiness, Annual Conference of Integrated Diabetes and Endocrine Academy (IDEACON), 6-7 July 2018, Kolkata

2. Management of precocious puberty, 2nd Annual Diabetes, Thyroid and Endocrine Conference, 14-16 August 2018, Jaipur

3. India is the world capital for Diabetes! How to translate this knowledge to our practice? Annual Conference of Physician of Mauritius 10th ACTVOI Conference, 25-28 October 2018, Convention Centre, Port Luis, Mauritius


5. Long term management of CAH, Annual Meeting of Endocrine Society of India (ESICON 2018), 15-17 November 2018, Bhubaneswar

6. Metformin—rediscovered, Annual meeting of Rajasthan Chapter of RSSDI (Research Society for Study of Diabetes in India), 12-13 January 2019, Jaipur

7. Recent advances in management of nutritional rickets, Annual meeting of African Society of Paediatric Endocrinology, 13-15 March 2019, Convention Centre, Lagos, Nigeria


Yashdeep Gupta

1. GDM: Diagnostic dilemmas to consensus, Endocrine Society of India Conference 2018, 18 November 2018, MAYFAIR Convention, Bhubaneswar
1. Erectile dysfunction in diabetes: Pathophysiology and treatment options, Rajasthan RSSDI 2019, 13 January 2019, Jaipur
2. A blood pressure target of 140/90 mm Hg is safer than 120/80 mm Hg in hypertensive patients with DM, SPEEDCON 2019, 2 February 2019, Gurugram
3. Management of type 2 diabetes mellitus—An overview, CME organized by Department of Hospital Management and Administration, AIIMS, New Delhi for physicians of Coal India Ltd, behest of Indian Institute of Coal Management, Ranchi, 18 February 2019, AIIMS, New Delhi
5. Teriparatide should not be used as first line therapy in management of postmenopausal osteoporosis, AESCON 2019, 16 March 2019, Kaziranga

RESEARCH
Funded projects
Ongoing
1. Registry of people with diabetes in India with young age at the onset phase II, Nikhil Tandon, ICMR, 7 years, 2012-2019, Rs 246.99 lakhs
2. Changing diabetes in children, Nikhil Tandon, Novo Nordisk India Pvt Ltd, 8 years, 2012-2020, Rs 21 lakhs
3. Integrated care for co-morbid diabetes and depression, Nikhil Tandon, National Institute of Mental Health, NIH, USA, 5 years, 2014-2019, Rs 88.22 lakhs
4. Development of Phase II Clinical Trial for an Investigational New Drug, Nikhil Tandon, Torrent Pharma, 5 years, 2014-2019, Rs 72.53 lakhs
5. CARRS Translation Trial: Implementing Quality Improvement Strategies in Diabetes, Nikhil Tandon, ICMR-Emory University, 5 years, 2014-2019, $17.55 lakhs
6. A lifestyle intervention programme for the prevention of type 2 diabetes mellitus among South Asian women with gestational diabetes mellitus, ICMR, New Delhi, Nikhil Tandon, ICMR, 5 years, 2015-2020, Rs 72.77 lakhs
7. Harmonization of existing registries of diabetes in youth: A US-India Collaborative Research Partnership, Dr Nikhil Tandon, ICMR, 3 years, 2016-2019, Rs 84.13 lakhs
8. NN1218 - 4131, Efficacy and Safety of Faster—Acting Insulin Aspart compared to NovoRapid both in combination with Insulin Degludec in Adults with Type 1 Diabetes, Nikhil Tandon, Nova Nordisk India Pvt Ltd, 4 years, 2016-2020, Rs 9.02 lakhs
9. Prevalence of Non-Alcoholic Fatty Liver Disease (NAFLD) and its association with cardio-metabolic disease risk factors in North India, Nikhil Tandon, ICMR, 3 years, 2017-2020, Rs 172.53 lakhs
11. Integrated Tracking Referral, and Algorithmic Management (I-TREC) System for Hypertension and Diabetes Institution, Nikhil Tandon, NIH, USA, 5 years, 2017-2022, $6.49 lakhs
12. To develop a strategy for postpartum follow up of woman with history of gestational diabetes mellitus by using the right test and frequency of testing and developing patient centric approach after incorporating their views, Nikhil Tandon, LUPIN, 3 years, 2018-2021, Rs 40.41 lakhs
13. Effect of intervention for lifestyle modification on improvement in sleep quality, depression score and optimal breastfeeding duration in women with history of GDM: Sub study of LIVING, Nikhil Tandon, USV, 3 years, 2018-2021, Rs 53.42 lakhs
14. Centre for Advanced Research and Excellence (CARE) in Young Diabetes, Nikhil Tandon, ICMR, 5 years, 2019-2024, Rs 104.95 lakhs
15. Functional significance of calcium sensing receptor autoantibodies in patients with idiopathic hypoparathyroidism, Ravinder Goswami, DBT, 3 years, 2016-2019, Rs 44 lakhs
16. Vitamin D deficiency and bone microarchitecture in asymptomatic healthy Indians: Exploring the functional significance of low serum 25(OH)D and high PTH, Ravinder Goswami, DBT, 4 years, 2019-2023, Rs 76 lakhs
17. Functional significance of calcium sensing receptor autoantibodies in patients with idiopathic hypoparathyroidism, Ravinder Goswami, DBT, 3 years, 2016-2019, Rs 44 lakhs
18. A Randomized Placebo Controlled Prospective Phase II Clinical Study of an Ayurvedic Coded Drug ‘AYUSH-D’ on Glycemic control in Pre-Diabetic Subjects, Rajesh Khadgawat, Central Council for Research in Ayurvedic Sciences Ministry of AYUSH, Government of India, 3 years, 2017-2020, Rs 35 lakhs

19. A Randomized Placebo Controlled Phase 2 Clinical Study of an Ayurvedic Coded Drug ‘AYUSH D’ in the Management of Type 2 Diabetes Mellitus as add on Therapy to Metformin, Rajesh Khadgawat, Central Council for Research in Ayurvedic Sciences Ministry of AYUSH, Government of India, 3 years, 2017-2020, Rs 35 lakhs


21. A randomised, multinational, active-controlled, (open-labelled), dose finding, (double-blinded), parallel group trial investigating efficacy and safety of once-weekly NNC0195-0092 treatment compared to daily growth hormone treatment in growth hormone treatment naïve pre-pubertal children with growth hormone deficiency, Rajesh Khadgawat, Novo Nordisk, 3 years, 2017-2020, Rs 30 lakhs

22. Development of A Standardized Formulation of Trigonella foenum-graecum Seeds for Preventing or Delaying the Development of Type-2 Diabetes in Subjects with Pre-Diabetes, Rajesh Khadgawat, ICMR, 4 years, 2017-2021, Rs 35 lakhs

23. Effect and safety of semaglutide and 2.4 mg once-weekly in subject with overweight or obesity and type 2 diabetes, Rajesh Khadgawat, Novo Nordisk, 5 years, 2017-2021, Rs 30 lakhs

24. A phase 3, open-label, randomized, multicenter, 12 months, efficacy and safety study of weekly MOD-4023 compared to daily Genotropin-therapy in pre-pubertal children with growth hormone deficiency, Rajesh Khadgawat, Opko Biologicals, 3 years, 2017-2020, Rs 25 lakhs

25. A Phase IIb, Open-label, Randomized, Comparative Study to Evaluate the Safety and Efficacy of USVCAP Formulation in Type 2 Diabetes Mellitus Subjects Uncontrolled with Metformin Hydrochloride Treatment, Rajesh Khadgawat, USV Ltd, 2 years, 2019-2021, Rs 10 lakhs

26. A trial comparing the effect and safety of once weekly dosing of somapacitan with daily Norditropin® in children with growth hormone deficiency, Rajesh Khadgawat, Novo Nordisk, 5 years, 2018-2023, Rs 20 lakhs

27. A randomized, double-blind, placebo-controlled, parallel-group, multicenter study to evaluate the effect of efpeglenatide on cardiovascular outcomes in Type 2 diabetes patients at High Cardiovascular Risk, Rajesh Khadgawat, Sanofi Aventis, 5 years, 2018-2023, Rs 25 lakhs

28. A randomized, 24-week, controlled, open label, parallel arm, multicenter study comparing the efficacy and safety of the insulin glargine/lixisenatide fixed ratio combination to insulin glargine in type 2 diabetes patients, inadequately controlled on Basal Insulin with or without Metformin, Rajesh Khadgawat, Sanofi Aventis, 3 years, 2017-2020, Rs 5 lakhs

29. A Phase II trial to assess the efficacy and safety of Pasireotide alone or in combination with cabergoline in patients with Cushing’s Disease, Viveka P Jyotsna, Novartis, 6 years, 2015-2021, Rs 10 lakhs

30. A Phase III, multi-center, double-blind, randomized withdrawal study of LCI699 following a 24 week, single-arm, open-label dose titration and treatment period to evaluate the safety and efficacy of LCI699 for the treatment of patients with Cushing’s Disease, Viveka P Jyotsna, Novartis, 5 years, 2016-2021, Rs 29.53 lakhs

31. A multicentre open label parallel arm RCT evaluating whether yoga can prevent worsening of glycaemic control in patients with type 2 diabetes mellitus on oral anti-hyperglycemic drugs, Yashdeep Gupta, ICMR, 3 years, 2017-2020, Rs 75 lakhs

32. Effect of Yoga on psychological, cognitive and glycemic control in patients with T2DM and depression: Two arm parallel randomized controlled trial, Yashdeep Gupta, DST, 3 years, 2017-2020, Rs 36.54 lakhs

33. Assessment of Cognitive, Neuroanatomical and Neurofunctional abnormalities in adults with Type 1 Diabetes, Yashdeep Gupta, DST, 3 years, 2017-2020, Rs 34.81 lakhs

34. Effect and safety of semaglutide 2.4 mg once-weekly in subjects with overweight or obesity, Yashdeep Gupta, Novo Nordisk Pvt Ltd, 2 years, 2018-2020, Rs 23 lakhs

35. The impact of Yoga on stress, metabolic parameters and cognition (Attention and Concentration) of Indian adolescents, Yashdeep Gupta, ICMR, 3 years, 2017-2020, Rs 64.64 lakhs

36. Validation of indigenously developed glucose sensing devices, Yashdeep Gupta, ICMR, 1 year, 2018-2019, Rs 2.40 lakhs
1. National alliance programme for biodesign and in-vitro diagnostics between translational health science and technology institute and All India Institute of Medical Science, Nikhil Tandon, DBT, 8 years, 2010-2018, Rs 49.45 lakhs

2. A trial comparing cardiovascular safety of insulin degludec versus glargine in subjects with Type 2 Diabetes at high risk of cardiovascular events, Nikhil Tandon, Nova Nordisk India Pvt Ltd, 4 years, 2014-2018, Rs 7.69 lakhs

3. Prevention of blindness due to Diabetes Retinopathy (DR) among patients with Type 1 Diabetes in India, Nikhil Tandon, PHFI, 2 years, 2016-2018, Rs 52.16 lakhs


5. 38 week trial comparing effect and safety of insulin degludec/insulin aspart vs. insulin glargine plus insulin aspart in subjects with type 2 diabetes treated with basal insulin with or without oral antidiabetic treatment in need of treatment intensification, Yashdeep Gupta, Novo Nordisk Pvt Ltd, 1 year, 2017-2018, Rs 14.72 lakhs

6. Efficacy and Semaglutide versus dulaglutide as add on to metformin in subjects with Type 2 diabetes, Yashdeep Gupta, Novo Nordisk Pvt Ltd, 2 years, 2016-2018, Rs 16.02 lakhs

7. To evaluate the distribution of glucose tolerance and risk factors predisposing to abnormal glucose tolerance in spouse of high-risk pregnant women (gestational diabetes mellitus/overweight/obese/pre-existing diabetes): A case-control study, Yashdeep Gupta, AIIMS, 2 years, 2016-2018, Rs 4 lakhs

Departmental Projects

Ongoing

1. Assessing Indian vegetarian diets with respect to their “potential protective impact” on cardio-metabolic health of urban adults in Delhi

2. Characterization of Neuroendocrine Tumors with Ga68-DOTANOC PET/CT and F18- FDG PET/CT and compare results with Histopathology

3. Determinants of bone mass in Asian Indian newborns—Nutritional perspective

4. Evaluation of eating disorders and dietary patterns and their association with metabolic parameters and glycemic control in adult patients with diabetes mellitus type 2

5. Molecular aspects in the pathogenesis of Basal ganglia calcification in Hypoparathyroidism

6. Pre and post-operative dysglycemia in cases of Pheochromocytoma/Paraganglioma—A tertiary care centre study in Northern India

7. Reversibility of Bony microarchitecture abnormalities in Hyperparathyroidism

8. To evaluate the prevalence of Non-Alcoholic Fatty Liver (NAFLD) in patients with and without previous history of gestational diabetes mellitus: A cross-sectional study

9. To study the effect of parental origin of X chromosome on clinical features and biochemical profile in patients with Turner syndrome

10. To study the effect of personality on diet quality and academic performance among adolescents: A comparison between boys and girls

11. Vitamin D status and its functional significance

Completed

1. A randomized double-blind controlled trial to investigate the effects of Vitamin D supplementation on insulin resistance and beta cell function in obese Asian-Indian subjects, aged 11-17 years

2. A study on distribution of glucose tolerance among women with history of gestational diabetes mellitus by IADPSG criteria/overt diabetes in pregnancy and their spouses

3. Assessment of arterial stiffness in obese children and adolescents in the age group of 6-18 years

4. Correlation between first trimester glucose screening and serum insulin levels with development of gestational diabetes mellitus in pregnancy

5. Effect of Vitamin D supplementation on pancreatic β cell functions in obese Indian subjects: A randomized controlled trial

6. Phenotype and radiological correlation in children with growth hormone deficiency
7. Prevalence of thyroid peroxidase antibody positivity in pregnant Asian-Indian subjects
8. Study of mitochondrial defects and VDR polymorphisms in Type 2 Diabetes
9. To assess the prevalence of Vitamin D deficiency in patients with non-traumatic fracture of hip
10. To compare the efficacy of 90,000 and 1,80,000 IU oral single dose Vitamin D for treatment of rickets in 6 months to 5 years of age
11. To compare the glycemic profiles of normoglycemic normal weight pregnant women with obese normoglycemic women with GDM during second trimester using CGMS [chief guide]
12. To Study Carotid Intima Media Thickness (CIMT) as a marker of atherosclerosis and its correlation to insulin resistance in children with obesity in the age group of 4-18 years
13. To study determinants of insulin resistance in children and adolescents with obesity
14. To study pituitary morphometry across different age groups
15. To study the clinical, biochemical and radiological features of primary hyperparathyroidism: Impact of Vitamin D Nutrition and Histopathology
16. To study the correlation of serum Vitamin D level with insulin resistance and beta cell function in subjects with obesity in the age group of 6-18 years
17. To study the determinants of insulin resistance in Asian Indian children with obesity aged 11-17 years
18. To study the impact of adiposity on serum androgen parameters in apparently healthy male subjects
19. To study the mutations in SRY, SOX9, SF1, DAX1, DHH, DMRT1 and WT1 genes in patients with 46, XY gonadal dysgenesis
20. To study the prevalence of Vitamin D deficiency in pregnant women at first and third trimester during the routine care
21. To study the variability in content strength of commercially available cholecalciferol preparations in India
22. TREC and KREC as marker of Thymic and bone-marrow T and B cell emigrant in idiopathic hypoparathyroidism
23. Vitamin D status of outdoor workers

Collaborative projects

Ongoing

1. A randomized control trial to compare the safety and outcome of trans-oral vestibular and axillo breast approach for endoscopic hemithyroidectomy in patients with benign thyroid swellings, Surgery
2. Assessment of nutritional status/parameters in acute leukemia patients undergoing induction chemotherapy, Hematology
3. In vivo assessment of somatostatin receptor expression with Ga DOTANOC PET/CT in patients with autoimmune and immune related orbitopathy, Nuclear Medicine
4. Pathogenesis of primary parathyroid adenoma, Pathology, Forensic Medicine, Anatomy
5. To study relation between components of Renin angiotensin aldosterone system and vascular functions following Angiotensin converting enzyme inhibition in type 2 diabetes patients with newly diagnosed hypertension, Physiology

Completed

1. A study to assess the knowledge and risk of chronic kidney disease among hypertension and/or diabetes patients with a view to develop educational booklet at AIIMS, New Delhi, Nursing
2. Association of Cardio-Metabolic Risk Factors with Non-Alcoholic Fatty Liver Disease: A population-based case control study, Department of Home Sciences, University of Delhi
3. Development and validation of questionnaire to assess knowledge, attitude and practice (KAP questionnaire) towards obesity among obese patients, Medicine
4. Molecular basis of basal ganglia calcification in Hypoparathyroidism, Anatomy and Forensic Medicine
5. Outcome implications of ADA/ACC guidelines-based insulin protocol in the management of hyperglycemia in hospitalized patients at AIIMS, Medicine

PUBLICATIONS

Journals: 80    Chapters in Books: 2
OPD attendance from 1 April 2018 to 31 March 2019

<table>
<thead>
<tr>
<th>Month</th>
<th>Old Patient</th>
<th>New Patient</th>
<th>DOY Clinic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>April, 2018</td>
<td>2,274</td>
<td>1,138</td>
<td>125</td>
<td>3,537</td>
</tr>
<tr>
<td>May, 2018</td>
<td>3,445</td>
<td>1079</td>
<td>160</td>
<td>4,684</td>
</tr>
<tr>
<td>June, 2018</td>
<td>3,034</td>
<td>997</td>
<td>142</td>
<td>4,173</td>
</tr>
<tr>
<td>July, 2018</td>
<td>3,478</td>
<td>1,003</td>
<td>152</td>
<td>4,633</td>
</tr>
<tr>
<td>August, 2018</td>
<td>3,349</td>
<td>1,078</td>
<td>158</td>
<td>4,585</td>
</tr>
<tr>
<td>September, 2018</td>
<td>3,220</td>
<td>968</td>
<td>165</td>
<td>4,353</td>
</tr>
<tr>
<td>October, 2018</td>
<td>3,775</td>
<td>1,043</td>
<td>148</td>
<td>4,966</td>
</tr>
<tr>
<td>November, 2018</td>
<td>3,232</td>
<td>917</td>
<td>123</td>
<td>4,272</td>
</tr>
<tr>
<td>December, 2018</td>
<td>3,388</td>
<td>919</td>
<td>621</td>
<td>4,928</td>
</tr>
<tr>
<td>January, 2019</td>
<td>3,181</td>
<td>1,058</td>
<td>117</td>
<td>4,356</td>
</tr>
<tr>
<td>February, 2019</td>
<td>3,272</td>
<td>1,009</td>
<td>172</td>
<td>4,453</td>
</tr>
<tr>
<td>March, 2019</td>
<td>3,369</td>
<td>942</td>
<td>189</td>
<td>4,500</td>
</tr>
<tr>
<td>Total</td>
<td>39,017</td>
<td>12,151</td>
<td>2,272</td>
<td>53,440</td>
</tr>
</tbody>
</table>

Inpatient and other patient related details may please be seen in Chapter 6. Hospital (Medical Record Division)

Laboratory Services

Hormones investigations

<table>
<thead>
<tr>
<th>No</th>
<th>Hormone</th>
<th>Tube assays done</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T4</td>
<td>14,926</td>
</tr>
<tr>
<td>2</td>
<td>TSH</td>
<td>20,703</td>
</tr>
<tr>
<td>3</td>
<td>TPO</td>
<td>2,011</td>
</tr>
<tr>
<td>4</td>
<td>LH</td>
<td>2,805</td>
</tr>
<tr>
<td>5</td>
<td>FSH</td>
<td>2,810</td>
</tr>
<tr>
<td>6</td>
<td>PRL</td>
<td>3,359</td>
</tr>
<tr>
<td>7</td>
<td>Cortisol</td>
<td>5,954</td>
</tr>
<tr>
<td>8</td>
<td>Testosterone</td>
<td>2,716</td>
</tr>
<tr>
<td>9</td>
<td>DHEA</td>
<td>1,032</td>
</tr>
<tr>
<td>10</td>
<td>17 OHP</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>ACTH</td>
<td>1,730</td>
</tr>
<tr>
<td>12</td>
<td>PTH</td>
<td>4,304</td>
</tr>
<tr>
<td>13</td>
<td>Vitamin D</td>
<td>7,172</td>
</tr>
<tr>
<td>14</td>
<td>Insulin</td>
<td>2,718</td>
</tr>
<tr>
<td>15</td>
<td>C Peptide</td>
<td>999</td>
</tr>
<tr>
<td>16</td>
<td>GH</td>
<td>1,496</td>
</tr>
<tr>
<td>17</td>
<td>GAD</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>F T4</td>
<td>5,864</td>
</tr>
<tr>
<td>19</td>
<td>T3</td>
<td>2,887</td>
</tr>
<tr>
<td>20</td>
<td>F T3</td>
<td>1,374</td>
</tr>
<tr>
<td>21</td>
<td>IGF 1</td>
<td>1,851</td>
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<tr>
<td>22</td>
<td>E2</td>
<td>917</td>
</tr>
<tr>
<td>23</td>
<td>Aldosterone</td>
<td>543</td>
</tr>
<tr>
<td>24</td>
<td>Renin</td>
<td>402</td>
</tr>
<tr>
<td>25</td>
<td>FGF 23</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>89,706</td>
<td></td>
</tr>
</tbody>
</table>

The HPLC—Tandem Mass Spectrophotometer system for measuring Steroid hormones in patient samples was installed and is working satisfactorily in the RIA Laboratory of the Department of Endocrinology and Metabolism.

Several validated reagent method protocols for quantitation of steroid hormones (including 25 (OH) Vitamin D) have been applied, tested and finally selected and standardized on this system by early 2019.

Currently, we are in the process of doing trial measurements of steroid hormones in patient’s samples using both methods, namely HPLC-MS/MS using our validated reagent method protocols and conventional RIA for comparison of results.

Biochemical investigations

<table>
<thead>
<tr>
<th>No</th>
<th>Investigation</th>
<th>Number of Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Blood glucose</td>
<td>17,491</td>
</tr>
<tr>
<td>2</td>
<td>Glycated Hemoglobin (HbA1c)</td>
<td>18,697</td>
</tr>
</tbody>
</table>
Specialty Clinics:
(a) Diabetes of Young on Saturdays
(b) Paediatric and Adolescent Endocrine Clinic on Monday afternoons
(c) Gestational Diabetes Mellitus (GDM) Clinic on Friday mornings
(d) Community services/camps

The department regularly hold camps especially awareness and screening programmes on obesity, PCOS, diabetes, and thyroid disorders.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Nikhil Tandon was nominated by Director-General, World Health Organisation (WHO) to serve on the 13th General Programme of Work (GPW 13) Measurement and Impact Framework Committee, Geneva, Switzerland; R.M. Shah Oration “Global Dimensions of Obesity and Diabetes Mellitus: Where are we heading?”, 4th Annual Conference of DIA Care—DIACON 2018, 22 September 2018, Ahmedabad; Maharashtra RSSDI Oration 2019: Gestational Diabetes: The Post-Delivery Years, Annual Conference of Maharashtra RSSDI, 1 February 2019, “Webinar”, Nagpur; Member, Medical Council of India’s Board of Governors, New Delhi; Chairman, Scientific Advisory Committee of NIN, Hyderabad; Associate Editor for the scientific journal Global Health, Epidemiology and Genomics; Member of the KDIGO Management of Diabetes and CKD Guideline: Work Group; Member of the Governing Body of the Institute of Medical Sciences, Banaras Hindu University, Varanasi; Nominated by the Ministry of Earth Sciences, Government of India as a Member of the National Coordination Committee for Polar Science Programme (NCPP), Antarctica; Member of the Governing Body of the National Institute of Health and Family Welfare (NIHFW), Ministry of Health and Family Welfare, Muniirk, New Delhi; Nominated as a Chairman of the Selection Committee for the selection of Medical Officers for the 38-Indian Scientific Expedition to Antarctica (ISEA), Goa; Vice President, National Board of Examination (NBE), New Delhi; Member, Institute Body (IB), Governing Body (GB), Standing Finance Committee (SFC) and Standing Selection Committee (SSC) of AIIMS, Jodhpur, Rajasthan; Delivered Convocation Address, BHU, IMS Convocation, 30 March 2019, BHU, Varanasi.

Professor Ravinder Goswami was Member, TEC ‘Human Genetics and Genome Analysis programme’ DBT; Expert for selection of faculties in the Department of Endocrinology, AIIMS, Rishikesh 2018; Expert for the Standing Selection Committee of the All India Institute of Medical Sciences, Jodhpur for the Department of Endocrinology and Metabolism; Expert for selection of faculties in the Department of Endocrinology, Indira Gandhi Institute of Medical Sciences, Patna; Member Project Review Committee for Medical Projects, CSIR; Member Dean’s Research Committee (DRC) AIIMS, New Delhi; Member Core Committee of the Central Core Research Facility (CCRF); Member, Joint Scientific Advisory Committee of the Institute under ICMR.

Professor Rajesh Khadgawat participated in medical camps—Leh, Ladakh from 21-28 September 2018; Subject Expert for the Interview for Endocrinology—Rajasthan Public Service Commission, UPSC, Institute of Liver and Biliary Sciences (ILBS); Member, Scientific Council of Zandu foundation of Health Research, Kolkata; Expert, National Anti Doping Agency (NADA), Ministry of Youth Affairs and Sports, Government of India; DM examiner for NRS Medical College, Kolkata, Srimanata Sankaradeva University of Health Sciences, Guwahati, West Bengal University of Health Sciences, Sher-i-Kashmir Institute of Medical Sciences, Srinagar, J & K; Member, SAE-Death Committee, DCGI; Member, Subject Expert Committee (Endocrinology), DCGI New Delhi; Subject expert, Medical Council of India.

Dr Alpesh Goyal received Endocrine Society of India (ESI) AV Gandhi Award for Best Clinical Research, 2018.

Visiting Scientist

1. Dr Brad Newsome, Programme Officer, National Heart Lung and Blood Institute (NHLBI), NIH, USA visited from 13 to 15 September 2018.
9.12. Forensic Medicine and Toxicology

**Professor and Head**
Sudhir Gupta

**Professors**
DN Bhardwaj
OP Murty
Sanjeev Lalwani
Adarsh Kumar
(MJP Apex Trauma Centre)
Millo Tabin

**Associate Professor**
Chittaranjan Behera

**Assistant Professors**
Kulbhushan Prasad
Abhishek Yadav

**Scientist-C**
Nidhi Sharma

**Chemist**
AK Jaiswal

**HIGHLIGHTS**

The Department of Forensic Medicine and Toxicology is apex referral center for complicated medico legal problems in India. The department is providing expert opinions in referred cases from CBI, NIA, NHRC, Courts and Crime branch of different states. It is involved in medico-legal autopsy, embalming of MLC deaths, clinical forensic medicine services, teaching, training, research, expert opinion in referred medico-legal cases and court related works. The department is running three laboratory services-Toxicology, DNA Fingerprinting and Histopathology and two support services in form of Forensic Radiology and Forensic Anthropology. A total of 2,665 medico legal autopsies were conducted by doctors of the department and attended 642 summons from courts including both at main as well as trauma center.

The department has facilitated the organization of cadaveric workshops and training programme for many clinical departments. Work is going on for development of odorless mortuary. The department has received grant for development of “Centre of Advanced research and excellence in Virtual Autopsy” from ICMR. A Task Force project entitled “Development of DNA database and Identification portal for unidentified dead bodies autopsied at AIIMS, New Delhi, by using bioinformatics tools and techniques is granted from ICMR”. A total of 10 departmental research projects are continuing and 2 have been completed. 5 collaborative projects were completed and 1 is continuing.

**EDUCATION**

There are 9 postgraduate (MD) students and one PhD students enrolled in the department. The department is also imparting training in DNA—Fingerprinting and Medical Toxicology to BSc, MSc and MD students of other universities from all over India. 5 students from different universities were trained for short term training.

**CMEs/Workshop/Symposium/Conferences**

1. Symposium on Humanitarian Forensics on 29 August 2018.

**Lectures delivered**

**Adarsh Kumar**

1. Latest trends in Forensic Medicine, IPS Induction Training Course, 4 April 2018, Hyderabad
2. Emerging Trends and Technologies in Forensic Toxicology, TOXOCON-12, 12th Annual Conference of Indian Society of Toxicology, 6-7 April 2018, Gangtok
3. Defensive medicine as a plea of defense—How far justified, Mid Term CME jointly organized by Department of Medicine and Forensic Medicine with Punjab Academy of Forensic Medicine and Toxicology, 12 May 2018, Jalandhar
4. Latest trends in Forensic Medicine, IPS Induction Training Course, 28-29 August 2018, Hyderabad
5. Legal aspects to be dealt by Medical Officers, CME Speaker for CHS Medical Officers, 19 September 2018, New Delhi
6. Forensic consultative forum meeting, Humanitarian Forensics on Dignified Management of the Dead including Forensic Human Identification in India, 25-26 September 2018, Gandhinagar
7. Legal aspects of medical records: Challenges and solutions, National CME jointly organized by Medico Legal Society of Assam and IJHRMLP, 9 October 2018, Tejpur
8. Human rights violation issues and crime against women in Indian perspective, CME on “Crime against Females: Problems and Solutions”, 12 October 2018, Meerut
10. Custodial death investigation-NHRC experience, 15th Annual Conference of South India Medico Legal Association, 30 November and 1-2 December 2018, Thiruvananthapuram

Chittaranjan Behera
1. Medico legal aspects of poisoning, CGR-Acute Poisoning, Emergency Department Experience, 9 October 2018, New Delhi
2. MOHFW guidelines on medico-legal response especially sexually assaulted victims and role of medical personnel in dealing with organ trafficking, Training programme on Gender-Based Violence and Human Rights for promoting women health under NHM, 30 October 2018, New Delhi

Abhishek Yadav
1. Basics of postmortem in current legal purview, CME Programme for Medical Officers of District Ghaziabad Provincial Medical Services Association, UP, 5 May 2018, Ghaziabad
2. Forensic evidence in civil and criminal trials, Training Programme for Junior Division Judges of India, conducted by National Judicial Academy, 8 September 2018, Bhopal
3. Forensic evidence: DNA profiling, Training Programme for Bangladesh Judicial Officers, conducted by National Judicial Academy, 8 October 2018 and 19 February 2019, Bhopal
4. Applicable models to India for the large-scale preservation of bodies of the dead and practical issues for mortuary operation following Disasters, Training for Disaster Management Authorities in India, International Centre for Humanitarian Forensics in Gujarat Forensic Science University, 5 December 2018, Gandhi Nagar

AK Jaiswal
1. Basics of liquid chromatography and its scope, Workshop on LC-MS for Analysis of Drugs and Explosives, 10 December 2018, New Delhi

Oral papers/posters presented
2. Kishore S, Behera C, Gupta SK, Arava S, Mridha AR, Jaiswal AK, Biochemical and histopathological findings in Sudden Death in Epilepsy, 71st AAFS Annual Scientific Meeting, 18-23 February 2019, Baltimore, USA
6. Sikary AK, Behera C, Body Coloration artifacts in Forensic Autopsy, 71st AAFS Annual Scientific Meeting, 18-23 February 2019, Baltimore, USA
8. Sharma N, Millo T, Kumar A, Gupta SK, DNA Bill: A critical review and updates for implementation and regulation in India, 9th International Conference on Legal Medicine, Medical Negligence and Litigation in Medical Practice, 26-28 October 2018, Pune
9. Yadav A, Strangulated hernia leading to a mid-air fatality, 40th Annual National Conference of Indian Academy of Forensic Medicine (IAFM), 1 February 2019, Jodhpur
RESEARCH

Funded projects

Ongoing

1. Centre of advanced research and excellence in Virtual Autopsy, Sudhir K Gupta, ICMR, 5 years, 2019-2024, Rs 5 crores
2. TASK FORCE Project—Development of DNA database and identification portal for unidentified dead bodies autopsied at AIIMS, New Delhi, by using bioinformatics tools and techniques, Chittaranjan Behera, ICMR, 3 years, 2018-2021, Rs 1.36 crores
3. Bioinformatics identification and *invitro* evaluation of single nucleotide polymorphisms associated with completed suicide in Indian population, Chittaranjan Behera, ICMR, 3 years, 2017-2020, Rs 69.11 lakhs

Completed

1. Association of inflammatory cytokines with suicidal deaths: A hospital based comparative cross-sectional study, Chittaranjan Behera, AIIMS, 2 years, 2016-2018, Rs 10 lakhs

Departmental projects

Ongoing

1. Genetic association of cytokine gene polymorphisms with suicidal behavior in Indian population
2. Content and linguistic analysis of suicide notes collected during medico legal autopsy at AIIMS, New Delhi
3. Gross, histological and electron-microscopic study of antemortem and postmortem electrocution burn mark
4. Quantification and quality assessment of human DNA by RT PCR
5. Radiological study of internal neck injuries in cases of death due to fatal pressure on the neck
6. Study of efficacy of various preservatives as compared to formalin-based solution being used in embalming for transportation purpose
7. Study of cardiac markers, gross findings and histopathological changes in heart in cases of suspected Cardiac Deaths
8. Age estimation between age 1-18 years by radiological study of epiphyseal union around elbow and wrist joints
9. Screening of alcohol and drug of abuse in road traffic accident cases reported at mortuary AIIMS New Delhi
10. Ligature and compressing material fiber detection, collection, identification and comparison in asphyxia deaths

Completed

1. Estimation of endogenous production of alcohol in human body by different microbes after death and its relevance to medico-legal issues
2. Toxicological analysis and distribution pattern of different drugs in various biological samples and their neurobiological effects in suicidal deaths

Collaborative projects

Ongoing

1. Development of rotary ultrasonic bone drilling machine prototype, Pathology and IIT Delhi
2. To study the extent of variation in ridge characteristics and determining gender among twins using their fingerprint characteristics, Department of Forensic Medicine and Toxicology, KMC, Manipal
3. Morphometric and morphoscopic study of ear and nose in brahmin and Rajput population of Mandi, Himachal Pradesh, A Forensic Anthropological Investigation, Department of Anthropology, Punjab University, Chandigarh
4. Fibrillin 1 gene mutation and the role of TGF beta in aortic aneurysms with cystic medial degeneration, Pathology
5. The role of neuroinflammation and glial activation in the suicidal deaths: A study in human postmortem brain, Anatomy

Completed

1. Immunohistochemical analysis of Matrix Metalloproteinases (MMP-2 And 9), Tissue Inhibitors of Matrix Metalloproteinases (TIMP-1 And 2), Collagen I and Collagen IV in Ascending Thoracic Aortic Aneurysm, Pathology

PUBLICATIONS

Journals: 40

PATIENT CARE

A. Casualty services: The Department of Forensic Medicine and Toxicology is providing round-the-clock medico-legal services like in cases of injury, sexual offences, poisoning etc. to the South and South-East district of Delhi
B. Mortuary Services: A total of 2665 (1788+877-JPNATC) medico legal autopsies were conducted at mortuary

C. Clinical Forensic Medicine: Total 605 cases of potency and other medico-legal examination brought by investigating officer and referred from court were dealt by the department. A total of 54 cases from CBI were dealt by medical board of the department. A subsequent opinion in complicated cases including reference from casualty etc. was offered in total 658 cases

D. Summons: Doctors of the department attended court of law in 642 cases from Delhi and other states

E. Medical Toxicology: Total 222 tests for 79 samples were performed for various poisons referred from the clinical department of AIIMS, medico-legal cases and in academic cases

F. Forensic Histopathology: The department is providing histopathology services for the samples of medico-legal autopsy cases from South and South-East district and also research purpose. Total 102 cases and 569 samples were done during this period

G. Embalming facility: The department is providing embalming facility for MLC cases (Postmortem cases). Total 260 cases of embalming were done during this period

H. Organ Retrieval for Therapeutic Transplantation: Total 130 corneas were retrieved at mortuary for transplantation by National Eye Bank

I. Forensic Radiology Services: Forensic radiology services were provided to 101 cases for various medico legal and academic purposes. (Both autopsy and live cases)

J. Forensic Anthropology Services: Age estimation for 7 cases referred from Courts as well as Sports Authorities

K. DNA Fingerprinting Laboratory: Paternity/Maternity case (6 samples), Research samples (DNA extraction and quantification), 145 samples

L. Community services: The department continues to participate in training programme for CBI officials, police officers and public prosecutors from all over the country

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Adarsh Kumar elected as Governing Council Member of International Academy of Legal Medicine (IALM) for 2019-2021 at Fukuoaka, Japan in June 2018; received Award of Excellence in view of outstanding service to medical profession by MN Barman Charitable Trust, Guwahati at Government Medical College, Tezpur, Assam on 9 October 2018; Elected as Governing Council Member of Indo-Pacific Association of Law Medicine and Science (INPALMS) for 2016-2019 at Bali, Indonesia; Nominated as Board of Studies-External Expert Member (Forensic Medicine and Forensic Sciences) by Kasturba Medical College, Manipal Academy of Higher Education, Manipal, Karnataka for 2017-2019; Member of Asia Pacific Medicolegal Association (APMLA) for another term of two years 2018-2020 at Japan; Medicolegal Expert to National Human Rights Commission; Member, Editorial Board of various journals: International Editorial Board Member-HSOA Journal of Forensic, Legal and Investigative Sciences (USA), Egyptian Journal of Forensic Sciences-Egypt, Adli Tip Bulletin-Turkey, The Egyptian Journal of Forensic Sciences and Applied Toxicology; Associate Editor, Medico Legal Update, Journal of Research in Medical Education and Ethics; Web Editor, International Journal of Health Research and Medico legal Practice; Member Editorial Board, Journal of Indian Society of Toxicology: Journal of Karnataka Medico legal Society; Indian Journal of Community and Family Medicine; Indian Journal of Forensic Medicine and Toxicology; Journal of Forensic Chemistry and Toxicology.

Dr Chittaranjan Behera was external examiner for 2nd MBBS at AIIMS, Bhubaneswar, Kolkata National Medical College and NDMC Medical College, Delhi; External expert for selection of faculties at Dr BSA Medical College, Delhi; Letter of appreciation from CMET, AIIMS for Institute Day Exhibition; Reviewer of Pub Med Index Journal: Journal of Affective Disorders, Journal of Forensic and Legal Medicine etc.; Editor/editorial board member: Assistant editor of International Journal of Medical Toxicology and Legal Medicine, ARC Journal of Forensic Sciences, Annals of Forensic Research and Analysis, Sci Fed Journal of Forensic, Journal of Forensic Medicine.

Dr AK Jaiswal was editorial board member for Research Journal of Forensic Science; Editor in Chief, Forensic Chemistry and Toxicology.

Dr Abhishek Yadav received Certificate of Appreciation for outstanding contribution as Faculty Incharge Mortuary to National Eye Bank by Dr RP Centre, AIIMS, on 33rd National Eye Donation Fortnight-2018, 4 September 2018; Represented India in “3rd regional conference for Government representatives and disaster management agencies” organized by International Committee of Red Cross (ICRC) for “Regional Cooperation and Policy development in Management of Dead in Emergencies” in Colombo, Sri Lanka, 22-23 May 2018; Represented AIIMS in “International Symposium of Humanitarian Forensics and Inauguration of International Centre for Humanitarian Forensics” at Gandhi Nagar, Gujarat from 20 to 22 June 2018” organized by International Committee of Red Cross (ICRC) and Gujarat Forensic Science University (GFSU); Awarded Letter of Appreciation after completing Certificate of Advanced Studies in Virtual Autopsy in University of Zurich, Switzerland, 27 March 2019.
HIGHLIGHTS
The department organized Six CME and National conferences and patient education activities. Awarded two Centers of Advanced Research Excellence in pancreatic disease and Intestinal diseases by Indian Council of Medical Research; Published 76 scientific papers. Initiated Advanced Fellowship Programme in Endoscopy, Pancreatic Diseases, Liver Diseases and Inflammatory Bowel Diseases. Initiated full-fledged gastrointestinal motility services. The faculty, residents and PhD students of the department received many awards including BEST paper awards. The faculty of the department initiated and coordinated making of national guidelines on various GI diseases.

EDUCATION
The department continued the training programme for courses on DM in Gastroenterology, and PhD in Gastroenterology and Human Nutrition. The department also participated in the training of undergraduate and postgraduate students also. The department initiated Advanced Fellowship Training Programme.

Long-term training:  
24 DM students  
4 PhD candidates  
One: Advanced Fellowship in advanced endoscopy

Short-term training: 2 trainees were trained during 2018-2019.

CME/Workshops/Symposia organized by the department
1. IBD-Masters Class at New Delhi, 10 June 2018
2. World Hepatitis Day at the AIIMS, New Delhi, 28 July 2018
3. 2nd National Conference of Clinical Nutrition at the AIIMS, New Delhi, 31 August-2 September 2018
4. CME on “IBD Care: IBD Counselling Assistance and Research for Education” at New Delhi, 9 September 2018
5. Young Clinician Programme, Hyderabad, 17-19 August 2018
6. Gastroenterology Young Masters (GYM-2019) at AIIMS, New Delhi, 12 January 2019

Lectures delivered
Anoop Saraya
1. Symposium Autoimmune Liver Disease, Diagnosis and Standard Treatment, 26th Annual Scientific Meeting of Indian National, Association for Study of the Liver (INASL), 2-5 August 2018, New Delhi
2. Nutritional therapies in alcoholic hepatitis and cirrhosis, CPLD 2018, Theme: Alcoholic Liver Disease, 13-14 October 2018, PGIMER, Chandigarh
3. Early nutrition in acute pancreatitis, ISGCON 2018, 28 November-1 December 2018, Kochi
7. Severe acute pancreatitis: Management in the first week, UPISGCON 2019, 30 March 2019, Lucknow
8. Debates in Liver Diseases and Transplantation, 4th International Liver Symposium, 6-8 April 2018, New Delhi
10. INASL Symposium on NAFLD-East meets West, INASL 2018, 2 August 2018, New Delhi

Pramod Garg
1. Genetic testing for adult patients with chronic idiopathic pancreatitis: In real life approach, Asian-Oceanic Pancreatic Association and Korean Pancreatobiliary Association and Korean Pancreatic Surgery Club, 26-28 April 2018, Seoul, South Korea
2. Pancreatitis phenotypes and genotypes in India, 50th Jubilee Meeting of the EPC, 13-16 June 2018, Berlin, Germany
3. Hypothesis Testing and Framing a Research Question, ‘Research Methodology Course’ at Government Medical College, 9-10 July 2018, Tanda, HP.
6. Organ failure in acute pancreatitis, Annual Conference of American Pancreatic Association, 31 October-3 November 2018, Miami, USA
7. Management of Pancreatic Fluid Collections, 1st India EUS Summit, 29 March 2019, Mumbai

Govind Makharia
1. Overview, ISG Task Force on Helicobacter Pylori Meeting, 7-8 April 2018, Bhubaneswar
2. Intestinal tuberculosis, Bihar Chapter of ISG, 14-15 April 2018, Bhagalpur
3. Ten mistakes we commit in the management of IBD, IBD Meet, 20 May 2018, Ludhiana
4. Ten mistakes we commit in the management of IBD, 3rd GRS Drug Review Meeting, 2 June 2018, Mumbai
5. Introduction to Delphi process, ISG-Taskforce Meeting on GERD, 16-17 June 2018, Mumbai
8. Gut Microbiome and Metabolic Disorder, Eco Summit-2, 29 July 2018, Hyderabad
9. How to deliver a talk, Young Clinicians Programme-2018 (YCP), 17-19 August 2018, Hyderabad
10. Celiac Disease: Challenges and Opportunities, ISGCON of Telangana State Chapter, 25-26 August 2018, Hyderabad
11. Liver manifestations of intestinal diseases, Liver Meeting in Delhi, 8 September 2018, New Delhi
12. C difficile infection, 2nd Annual State Conference of Chhattisgarh Association of Medical Microbiologists, 8-9 September 2018, Raipur
16. Intestinal tuberculosis, 28th Annual Conference of Indian Association of Surgical Gastroenterology, 3-7 October 2018, Chandigarh
17. Celiac: Who to screen and how to screen, 59th Annual Conference of Indian Society of Gastroenterology, 28 November-1 December 2018, Kochi
18. Intestinal failure, 59th Annual Conference of Indian Society of Gastroenterology, 28 November-1 December 2018, Kochi
20. Coeliac Disease, 19th North East Zonal Cardiological Society of India Conference, 21-23 December 2018, Agartala
21. Intestinal tuberculosis, 28th Annual Conference of Indian Association of Surgical Gastroenterology, 3-7 October 2018, Chandigarh
22. Coeliac disease, 19th North East Zonal Cardiological Society of India Conference, 21-23 December 2018, Agartala
24. How to write a complete diagnosis, Gastroenterology Young Masters Programme, 25-27 January 2019, Coimbatore
26. Non-celiac gluten sensitivity, Annual Conference of West Bengal Chapter of ISG, 8-9 February 2019, Kolkata
27. Functional GI disease, Kalinga Perspective on Liver and Digestive Disease, 9-10 February 2019, Bhubaneswar

Shalimar

1. Adjuvant antivirals for HCC, 2018 Update of INASL Consensus on HCC, 5-6 May 2018, Puri, Odisha
2. ATT Hepatitis, 2nd PGI-GI Emergency Update, 29-30 September 2018, PGIMER, Chandigarh
3. HE in ALF/CLF and ACLF: How are they different? 18th Current Perspectives in Liver Disease (CPLD)-2018, 13-14 October 2018, (PGIMER), Chandigarh
4. Symposium on ACLF, 26th Annual Scientific Meeting of the Indian National Association for the Study of the Liver (INASL), 2-5 August 2018, New Delhi
6. Conducted a panel discussion on surgical clearance in patients with cirrhosis, Annual Conference of Indian Society of Gastroenterology-2018, 1 December 2018, Kochi, Kerala
8. A case of NASH and management issues—Multi organ and multiple etiologies, 7th Kolkata Liver Meeting, 6-8 December 2018, Kolkata, West Bengal
9. Spectrum of infection and choice of antibiotics community, nosocomial and 2nd Hit, APASL ACLF Consensus Update, 1 October 2018, ILBS, Delhi
10. Acute Liver Failure, South Asian Association for Study of the Liver [SAASL], 10 February 2019, KIIT University, Bhubaneswar

Baibaswata Nayak

1. De novo assembly of Hepatitis C Virus full-length genome following next generation sequencing and genetic variations of strains circulating in north and North-East India, INTERVIROCON 2018, International Conference of Virology, 12-14 November 2018, PGIMER, Chandigarh
2. DNA Methylation in Cancer, relevant techniques and analysis, AIIMS, Seminar, 15 May 2018, AIIMS, New Delhi
3. Recent advances in molecular diagnostic, treatment and therapeutic response evaluation in hepatitis virus infections, National Seminar, 8 May 2018, SUMS Hospital, Bhubaneswar
4. Trends in Flow Cytometer Technology, Beckman-Coulter Symposium, 10 April 2018, New Delhi

Saurabh Kedia

1. Nutrition in IBD, Annual Conference of the Indian Society of Nutrition, 31 August 2018, New Delhi, India
2. Presentation of Asian working group on dietary guidelines in IBD, National IBD Meet, 16 September 2018, New Delhi, India
3. Diet as a therapy for IBD, 59th ISGCON 2018, 29 November 2018, Kochi, India
4. Very early onset IBD, West Bengal Chapter of ISG, 9 February 2019, Kolkata, India
5. Updates on Ulcerative colitis, Kalinga Perspective in Liver Disease 2019, 9 February 2019, Bhubaneswar, India
6. Treat to target therapy in IBD, Endosurg 2018, 28 March 2019, New Delhi, India
7. Physiology and pathophysiology of Achalasia cardia: Can it be set right? UP-ISGCON 2019, 29 March 2019, Lucknow, India

Deepak Gunjan

2. Endoscopic management of GAVE, 59th Annual Conference of ISG, ISGCON 2018, 28 November-1 December 2018, Kochi, Kerala


4. Recent advances in pancreas, Gastroenterology Young Masters (GYM), 12 January 2019, AIIMS, New Delhi

5. Endoscopy simulation device in Gastroenterology, MedSim 2019: DBT-IISc Bioengineering and Biodesign Initiative (BBI2) Workshop on Medical Simulation, 27 February 2019, IISC, Bangalore

6. Radial EUS: Mediastinum (How I do it?), India EUS Summit, 28-30 March 2019, Mumbai


**Oral papers/posters presented**


10. Kamat N, Kedia S, Aggarwal KK, et al, National Survey of Physicians on awareness of Inflammatory Bowel Disease in India, Poster, 28 November-1 December 2018, Kochi, Kerala


19. Rampal R, Wari NM, Madhu D, Kedia S, et al, Prospective validation of CD4+CD25+FOXP3+ T-regulatory cells as an immunological marker to differentiate intestinal tuberculosis from Crohn’s Disease, Poster, 28 November-1 December 2018, Kochi, Kerala


25. Shalimar, Kumar S, Nayak B, Gunjan D, Kedia S, Persistent or incident hyperammonemia is associated with complications and poor outcomes in acute decompensation and acute on chronic liver failure, American Association for the Study of Liver Diseases (AASLD), 9-13 November 2018, San Francisco, USA


27. Sharma S, Singh N, Kedia S, et al, Exclusive enteral nutrition is effective in adults with Crohn’s Disease: Experience from a tertiary care hospital in India, Poster, 28 November-1 December 2018, Kochi, Kerala


33. Yadukrishna S, Teja V, Kedia S, Thromboembolic complications in patients with Inflammatory bowel disease predict poor prognosis, Poster, 5-9 March 2019, Copenhagen, Denmark

RESEARCH
Funded projects
Ongoing
1. Role of gene-regulating and immunological markers in pathogenesis of pancreatic adenocarcinoma, Anoop Saraya, ICMR, 3 years, 2018-2021, Rs 41 lakhs
2. Role of miRNA medicated modulation of signal transduction in pancreatic cancer, Anoop Saraya, DST, 3 years, 2018-2021, Rs 58 lakhs
3. Home based blenderized formulations in acute pancreatitis: A pilot randomised control trial, Anoop Saraya, ICMR, 3 years, 2018-2021, Rs 39 lakhs
4. To study the gut mucosal injury in severe acute pancreatitis and their correlation with organ failure and mortality, Anoop Saraya, DBT, 4 years, 2015-2019, Rs 56 lakhs
5. MicroRNAs as biomarkers in chronic pancreatitis patients who are at risk of developing pancreatic cancer, Anoop Saraya, DBT, 3 years, 2016-2019, Rs 91 lakhs
6. Sarcopenia in chronic pancreatitis: Epidemiology, diagnosis and evaluation of etiological factors and molecular mechanisms responsible for sarcopenia, Anoop Saraya, ICMR, 3 years, 2019-2022, Rs 84 lakhs
7. Centre for advanced research and excellence in pancreatic diseases, Pramod Garg, ICMR, 5 years, 2019-2024, Rs 500 lakhs
8. Lypolytic Helicobacter pylori enzymes and their potential role(s) in pathogenesis, Vineet Ahuja, ICMR, 4 years, 2017-2021, Rs 56.75 lakhs
9. Gut Microbiome—Regulators of the Intestinal Stem cell niche in Health and Inflammatory Bowel Disease, Vineet Ahuja, MHRD-Scheme for Promotion of Academic and Research Collaboration (SPARC), 2 years, 2019-2021, Rs 45.97 lakhs
10. Centre of Advanced Research in Intestinal Diseases, ICMR, 5 years, 2019-2024, Rs 500 lakhs
11. To study the innate inflammatory ability of macrophages in Crohn’s Disease and ITB, Vineet Ahuja, DST–SERB, 3 years, 2017-2020, Rs 27.40 lakhs
12. Crohn’s Disease in India: A multi-centric study from a country where intestinal tuberculosis as well as Crohn’s Disease is endemic, Vineet Ahuja, ICMR, 3 years, 2016-2019, Rs 42 lakhs
13. Combined Phase 3, Double Blind, Randomized, Placebo-Controlled Studies Evaluating the Efficacy and Safety of Filgotinib in the induction and maintenance of Remission in Subjects with Moderately to Severely Active Crohn’s Disease, Vineet Ahuja, Gilead, 3 years, 2018-2021, Rs 20 lakhs
14. Combined Phase 2b/3, Double-Blind, Randomized, Placebo-Controlled Studies Evaluating the Efficacy and Safety of Filgotinib in the Induction and maintenance of Remission in Subjects with Moderately to Severely Active Ulcerative Colitis, Vineet Ahuja, Gilead, 1 year, 2018-2019, Rs 5 lakhs
15. Entyvio (Vidolizumab IV) Extended Access Programme in Ulcerative colitis and Crohn’s Disease, Vineet Ahuja, PPD, 3 years, 2016-2019, Rs 3 lakhs
16. Department of Biotechnology-Consortium on celiac disease, Govind K Makharia, DBT, 3 years, 2017-2020, Rs 359 lakhs
17. Whole gut and intestinal metagenome in patients with irritable bowel syndrome and non-celiac gluten sensitivity and effect of gluten free diet, Govind K Makharia, DST, 3 years, 2018-2021, Rs 61.7 lakhs
18. Estimation of gluten content in unlabelled and labelled gluten free food products and commonly used food items used by celiac disease patients, Govind K Makharia, ICMR, 3 years, 2018-2021, Rs 24 lakhs
19. Indo-US Joint Network Centre for Excellence in Celiac Disease, Govind K Makharia, IUSSTF, 2 years, 2017-2019, Rs 43 lakhs
20. Exploration for development of wheat with low immunogenic gluten, Govind K Makharia, IARI, 5 years, 2016-2021, Rs 46 lakhs
21. To study the Resistance Associated Variants (RAVs) in Chronic Hepatitis C patients treated with Sofosbuvir-based therapy, Shalimar, Ministry of Health and Family Welfare (DHR), 3 years, 2017-2020, Rs 44 lakhs
22. Development of reverse genetic based recombinant Newcastle disease virus model for understanding immune response in patients infected with Hepatitis C Virus, B Nayak, DBT-NER, 3 years, 2016-2019, Rs 105 lakhs
23. Clinical relevance of Human Leukocyte Antigen (HLA-G) molecules and its polymorphism in Hepatocellular carcinoma, B Nayak, AIIMS, 2 years, 2016-2018, Rs 4 lakhs
24. CD14 gene variations in Alcohol-Induced Liver Disease (ALD) and Alcoholic Pancreatitis (ALP) in Co-morbid Condition and Relationship between Associated Polymorphisms and MD2 molecule binding to the CD14-LPBS-TLR4 Complex, B Nayak, DST, 3 years, 2017-2020, Rs 27 lakhs
25. Gut microbiome—Regulators of the intestinal stem cell niche in health and inflammatory bowel disease, Vineet Ahuja, SPARC, 2 years, 2019-2021, Rs 4,50,000

**Completed**

2. Effect of H. pylori eradication therapy in patients with NAFLD having H. pylori co-infection: A pilot open label randomized controlled clinical study, Shalimar, AIIMS, 2 years, 2017-2019, Rs 5 lakhs

**Departmental Projects**

**Ongoing**

1. A prospective cohort study for the identification of miRNA expression in human Non-Alcoholic Fatty Liver Disease (NAFLD)
2. A randomized control trial of exclusive enteral nutrition with corticosteroids vs corticosteroids alone in patients with acute severe ulcerative colitis
3. A study of adaptive immune response in chronic pancreatitis
4. An open label, single arm, investigator initiated phase I/II study to assess the safety and efficacy of local administration of Stempeucel® (Adult human Bone marrow derived, cultured, pooled, Allogeneic Mesenchymal Stromal Cells) in patients with perianal fistulizing Crohn’s Disease
5. Assessment of villous enteropathy in first-degree relatives of patients with celiac disease
6. Comparative analysis of cost and nutritional composition of gluten-free food with their gluten containing counterparts
7. Consortium on Non-alcoholic Fatty Liver Disease, [ICON-D] A Multicentric Prospective Observational Study
8. Dabigatran as an Oral Anticoagulant in Hepatic Venous Outflow Tract Obstruction: A Retrospective study
9. Defining intestinal failure in patients with celiac disease
10. Development and validation of a tool for assessment of gluten free diet in Indian celiac disease patients
11. Early versus delayed percutaneous drainage for infected acute fluid collections in acute pancreatitis: A randomised controlled trial
12. Effect of supplementation of branched chain amino acids on parameters of sarcopenia in patients with liver cirrhosis: A double blinded randomized controlled trial
13. Efficacy and tolerability of hyperbaric oxygen therapy in small bowel stricturing and fistulizing Crohn’ Disease: A stratified RCT
14. Epigenetic Reprogramming of Intestinal Epithelial Stem Cells (ISCs) via gut microbiota derived metabolites in Ulcerative Colitis
15. Estimation of gluten content in unlabelled and labelled gluten-free food products and commonly used food items consumed by celiac disease patients
16. Extra small intestinal GI manifestations of celiac disease
17. Genetic basis of Budd Chiari Syndrome/hepatic venous outflow tract obstruction in Indian patients
18. Gut Microbiota: Regulators of Intestinal Stem Cell—Intrinsic Signaling Pathways in Health and Ulcerative Colitis
19. Identification of stage-specific molecular signature for diagnosis of non-alcoholic fatty liver disease using the multi-omics approach
20. Intestinal permeability in patients with acute pancreatitis—Role of tight junction proteins and effect of enteral nutrition
21. L-Ornithine L-Aspartate in Treatment of Overt Hepatic Encephalopathy in Patients with Cirrhosis: A Double-Blind Randomized Controlled Trial
22. Prevalence of celiac disease in patients of Inflammatory Bowel Disease
23. Prevalence of sarcopenia in cirrhosis and its correlation with serum myostatin and myostatin gene expression in muscle biopsy
24. Prognostic role of autophagy in patients with pancreaticadenocarcinoma
25. Role of immune pathways in the pathogenesis of chronic pancreatitis
26. Role of liquid Biopsy Biomarkers in Hepatocellular carcinoma and Hepatitis B Virus induced carcinogenesis
27. Role of microRNA as biomarker and its modulation in HCC targeting mTOR pathway
28. Role of miRNA mediated modulation of signal transduction in pancreatic cancer
29. Sarcopenia in Chronic Pancreatitis: Prevalence, diagnosis and prognostic value
30. Targeted versus standard fluid therapy in predicted severe acute pancreatitis: A randomized controlled study
31. To assess the prevalence and etiology of non-responsive celiac diseases in patients on gluten free diet for one year or more
32. Treat to target strategy in active Ulcerative Colitis patients: A randomized control trial
**Completed**

1. A multiparameter model to differentiate intestinal tuberculosis from Crohn’s Disease in ulcero-constrictive disease of the intestine
2. Assessment of oxidative stress and antioxidant levels in patients of Idiopathic Recurrent Acute Pancreatitis
3. Development of gluten-free food products for patients with celiac disease and consumer validation by clinical trials for commercialization
4. Effect of different etiologies on the outcome and long term survival of acute liver failure
5. Evaluation of the diagnostic performance of second-generation serological tests in two different ethnic populations, Assessment of Global prevalence of celiac disease
6. Modulation of Human Immune and Inflammatory Responses by Vitamin A in Inflammatory Bowel Disease (Ulcerative Colitis, Crohn’s Disease)
7. Role of C-Reactive Protein (CRP) in predicting response to loco-regional therapy of HCC
8. Role of gut microbiota in the pathogenesis of alcoholic and non-alcoholic fatty liver disease in humans
9. Spectrum of clinical and subclinical endocrinopathies in treatment naïve patients with celiac disease
10. The role of miRNA(s) regulating metabolic reprogramming enzyme to promote tumor progression
11. To study the pathogenesis of Non Alcoholic Fatty liver disease in Indian Population
12. To study the pathophysiological changes in patients with acute on chronic liver failure
13. To study the prevalence of metabolic syndrome in patients with celiac disease on GFD for 1 year

**Collaborative Projects**

**Ongoing**

1. A randomized trial of endoscopic versus laparoscopic drainage of pancreatic pseudocysts, Surgery
2. Comparison of various diagnostic modalities for identification of refractory celiac disease in a cohort of patients with celiac disease unresponsive to gluten free diet, Pathology
3. Correlation of hepatic fat content and angiographic coronary artery stenosis, Department of Cardiology, VMMC and Safdarjang Hospital
4. Development of a low-cost diagnostic platform for the identification of viral DNA using CRISPR/Cas13a system, South Asian University, New Delhi
5. Effect of anti-inflammatory drugs on duct ligation and Na-Taurocholate model of experimental acute pancreatitis in rats, GI Surgery and Anatomy
6. Effect of urbanization on gut microbiome, mycobiome and virome in patients with Inflammatory Bowel Disease from Northern India, Department of Microbiology, Maharshi Dayanand University, Rohtak, Haryana
7. Estimation of pooled prevalence of celiac disease in patients with liver disease: Systematic review and meta-analysis, Beth Israel Deaconess Medical Center, USA
8. Estimation of pooled prevalence of celiac disease in patients with short stature: Systematic review and meta-analysis, Beth Israel Deaconess Medical Center, USA
9. Genetic association of cytokine with suicidality in Indian population, Forensic Medicine
10. Hepatic regenerative potential of exosomes derived from human Mesenchymal Stem Cells in liver fibrosis model, Stem Cell facility
11. Intestinal stem cells in celiac disease, Pathology
12. miRNA as disease modifier in HLA-DQ2/ DQ8 matched first degree relatives of patients with celiac disease, Pathology
14. Nanoparticles based amperometric biosensor for detection of thyroid dysfunctioning, Department of Biotechnology, Jaypee Institute of Information Technology, NOIDA, UP
15. Nanotechnology based vaccine against Hepatitis E Virus, Department of Biotechnology, Jaypee Institute of Information Technology, NOIDA, UP
17. To assess the prognostic value of various cytokines in Acute on Chronic Liver Failure (ACLF) patients, Infectious disease
Completed

1. Correlation between serum biomarkers, dynamic contrast-enhanced magnetic resonance imaging and histopathology in paediatric osteosarcomas, Orthopaedics
2. Impact of bariatric surgery on oxidative stress and pro-anti inflammatory pathways in Non-alcoholic fatty liver disease of morbidly obese patients, Surgical Disciplines
3. Prevalence and molecular characterization of Occult Hepatitis C Virus Infection (OCI) in patients with cryptogenic liver disease, Microbiology
4. Role of multiparametric MRI and Ga-68 PSMA PET Scan in evaluation of high risk prostate cancer and its correlation with histopathology and genomic markers, Radiodiagnosis
5. Study of the role of butyrate a short-chain fatty acid, in modulating HBV Replication and Hepatocellular Carcinoma, Department of Life Sciences and Biotechnology, SAU, Chanakyapuri, New Delhi

PUBLICATIONS

Journals: 63    Abstracts: 19    Chapters in book: 1

PATIENT CARE

Routine Gastroenterology Clinic (Monday to Friday)
New cases: 27,552   Old cases: 38,606

Special clinics:

<table>
<thead>
<tr>
<th>Name of the clinic</th>
<th>New cases</th>
<th>Old cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver Clinic</td>
<td>1,382</td>
<td>14,329</td>
</tr>
<tr>
<td>Pancreas Clinic</td>
<td>772</td>
<td>3,431</td>
</tr>
<tr>
<td>IBD and ITB Clinic</td>
<td>688</td>
<td>7,380</td>
</tr>
<tr>
<td>Interventional Clinic</td>
<td>405</td>
<td>585</td>
</tr>
<tr>
<td>Celiac Clinic</td>
<td>70</td>
<td>735</td>
</tr>
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</table>

Endoscopy services

List of procedures

- Diagnostic and therapeutic endoscopies: 20,520
- Diagnostic and therapeutic colonoscopies: 2,880
- Diagnostic sigmoidoscopies: 2,168
- Side-viewing endoscopies: 830
- Endoscopic Retrograde Cholangiopancreatography (ERCP): 2,520
- Endoscopic ultrasound (Diagnostic and therapeutic): 515
- Fibroscan: 10,610

G.I. Motility

- High resolution esophageal manometry: 437
- High resolution anorectal manometry: 334
- Biofeedback: 186
- 24 hours ambulatory PH monitoring: 12

Tests which were undertaken in the department

<table>
<thead>
<tr>
<th>No.</th>
<th>Test Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Hepatitis B Virus quantitation by realtime PCR</td>
<td>2,716</td>
</tr>
<tr>
<td>2.</td>
<td>Hepatitis C Virus quantitation by realtime PCR</td>
<td>2,054</td>
</tr>
<tr>
<td>3.</td>
<td>HCV genotyping by real time PCR</td>
<td>155</td>
</tr>
<tr>
<td>4.</td>
<td>HEV detection quantitative</td>
<td>422</td>
</tr>
<tr>
<td>5.</td>
<td>HBsAg by ELISA</td>
<td>1,759</td>
</tr>
<tr>
<td>6.</td>
<td>HBeAg by Flurometry/ELISA</td>
<td>480</td>
</tr>
<tr>
<td>7.</td>
<td>Anti Hbe by Vidas/ELISA</td>
<td>188</td>
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<tr>
<td>8.</td>
<td>Anti Hbc Total by Vidas/Elisa</td>
<td>938</td>
</tr>
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<td>9.</td>
<td>HBcIgM by Vidas</td>
<td>7</td>
</tr>
<tr>
<td>10.</td>
<td>HAV IgM by ELISA</td>
<td>447</td>
</tr>
<tr>
<td>11.</td>
<td>HEV IgM by ELISA</td>
<td>450</td>
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<tr>
<td>12.</td>
<td>Anti HCV by ELISA</td>
<td>1,644</td>
</tr>
</tbody>
</table>
13. Arterial Ammonia 1,136
14. IgG4 by Nephelometry 13
15. D-Xylose by colorimetry 422
16. Fecal Fat by ether extraction 273
17. Fecal elastase by ELISA 398
18. Hydrogen Breath Test 79
19. Urea Breath Test 23
20. Ttg IgA by FEIA 300
21. Ttg IgA by ELISA 1,753
22. Ceruloplasmin by turbidometry 1,615
23. Serum Copper by colorimetry 837
24. 24 hrs. urinary copper 663
25. Lipid peroxidation (MDA) by spectrophotometry 21
26. Free Radical Antioxidant Potential (FRAP) 21
27. Lactose 150
28. Mannitol 150
29. sHLA G ELISA 76
30. hsCRP by ELISA 80

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Pramod Garg was awarded Om Prakash Bhasin Award in the category ‘Health and Medical Sciences’ for the year 2017, Nominated Member of Scientific Advisory Board, Indian Council of Medical Research, New Delhi, Member of Scientific Advisory Group for the Division of Non-Communicable Diseases, Indian Council of Medical Research, New Delhi, Delivered ‘KN Jalan Oration’ during the Annual Conference of the West Bengal Chapter of the Indian Society of Gastroenterology, held in Kolkata on the 8 February 2019.

Professor Govind K Makharia was nominated as the Co-chair of Clinical Research Committee, World Gastroenterology Organization (2017-2020); Co-chairman of making of Global guidelines on “Diet and Gut” by World Gastroenterology Organization; Board Member, International Association for the Studies on Celiac Disease (2015-2019); Council Member, Asian Pacific Association of Gastroenterology (APAGE); Secretary General of Indian Society of Gastroenterology (2016-2019); Editorial Advisory Board Member, Clinical and Translational Gastroenterology (American College of Gastroenterology); Coordinator of the Department of Biotechnology Consortium on Celiac Disease; Governing Council Member, Indian Motility and Functional Diseases Association; Coordinator of Indian Society of Gastroenterology Task Force on Inflammatory Bowel Disease; Coordinator of Young Clinician Programme, Indian Society of Gastroenterology.


Dr Saurabh Kedia was awarded Young Investigator Award for the paper titled ‘Gut microbiome diversity in acute severe colitis is different from mild to moderate colitis’ during the ISGCON-2018 held at Kochi, Kerala, Nominated as Member ISG Task Force on the development of Indian Guidelines on Gastroesophageal reflux disease, nominated Member of ISG-API Task Force on the development of guidelines on GERD.

VISITING SCIENTISTS

1. Dr Saurabh Mukewar, Assistant Professor, NY Presbyterian Hospital, USA on 28 August 2018
2. Dr David C Whitcomb, Professor of Medicine, Chief, Division of Gastro, Hepatology and Nutrition, University of Pittsburgh, USA on 5 December 2018
3. Dr S Dasarathy, Chairman Department of Gastroenterology, Hepatology and Nutrition, Cleveland Clinic, Ohio, USA on 2 February 2019.
HIGHLIGHTS
The department organized the inaugural conference of the Liver Transplantation Society of India (LTSICON 2018) on 17 and 18 November 2018. We also conducted hands-on training workshops on cadaveric multi-organ retrieval and vascular anastomosis on 18 November 2018.

EDUCATION
The department is actively involved in the teaching of undergraduate students. The department offers 3-year training leading to award of MCh in Gastrointestinal Surgery. There are 14 MCh students in the department. The department also offers short-term observership for a period of 1-3 months. The weekly academic activities include a weekly audit, presentations of abstracts of recently published papers, a seminar, journal club, and discussion on research and dissertation projects. Besides these, a combined round with Gastroenterology and a GI Radiology conference are held once in a week, and a GE-GI Surgery histopathology conference once in two weeks.

CMEs/Workshops/Symposia/National and International Conferences organized by the department

1. ‘Celebrating 30 years of publishing’ of The National Medical Journal of India, AIIMS, New Delhi, 5-8 April 2018
2. Workshop on ‘Writing a Research Paper’, AIIMS, New Delhi, 5-6 April 2018
3. Workshop on ‘How to Peer Review?’, AIIMS, New Delhi, 6 April 2018
4. Seminar-cum-Workshop for Editors, AIIMS, New Delhi, 7-8 April 2018
5. Inaugural conference of the Liver Transplantation Society of India (LTSICON 2018), AIIMS, New Delhi, 17-18 November 2018
6. Workshop on cadaveric multiorgan retrieval, AIIMS, New Delhi, 18 November 2018
7. Workshop on vascular anastomosis, AIIMS, New Delhi, 18 November 2018

Lectures delivered
Peush Sahni

1. IMRAD format, Workshop on Writing a paper, 5-6 April 2018, AIIMS, New Delhi
2. Discussion, Workshop on Writing a paper, 5-6 April 2018, AIIMS, New Delhi
3. Editorial process, Workshop on Writing a paper, 5-6 April 2018, AIIMS, New Delhi Scientific misconduct/Predatory journals, Workshop on Writing a paper, 5-6 April 2018, AIIMS, New Delhi
4. Choosing a journal, Workshop on Writing a paper, 5-6 April 2018, AIIMS, New Delhi
5. The peer review process: History and methods, Workshop: How to peer review, 6 April 2018, AIIMS, New Delhi
9. Components of peer review: Results and discussion, Indian Journal of Urology workshop on peer review, 14-15 April 2018, Hyderabad
11. Writing a review, Indian Journal of Urology workshop on peer review, 14-15 April 2018, Hyderabad
12. Ethics of research: Consent, IEC and trial registration, Workshop on Research and Writing, 17 April 2018, ESIC Medical College and Hospital, Hyderabad
13. Authorship issues, Scientific misconduct, 17 April 2018, ESIC Medical College and Hospital, Hyderabad
14. Pseudo/predatory journal, 17 April 2018, ESIC Medical College and Hospital, Hyderabad
15. Cystic neoplasms of pancreas—What a Surgical resident should know, Endosurg 2018, AIIMS, New Delhi, 19 April 2018
17. Methods, PG Research Methodology Course, 5 May 2018, AIIMS, New Delhi
18. Results, Tables/Figures, PG Research Methodology Course, 5 May 2018, AIIMS, New Delhi
19. Discussion, PG Research Methodology Course, 5 May 2018, AIIMS, New Delhi
20. References, PG Research Methodology Course, 5 May 2018, AIIMS, New Delhi
22. Publication ethics: COPE, WAME and ICMJE initiatives, National Workshop on Publication Ethics and Scientific Writing, 5-7 July 2018, Ayush Centre of Excellence, Savitribai Phule Pune University, Pune
24. COI and Ethics—Editor’s and reviewer’s perspective, National Workshop on Publication Ethics and Scientific Writing, 5-7 July 2018, Ayush Centre of Excellence, Savitribai Phule Pune University, Pune
25. Case studies—An interactive session, National Workshop on Publication Ethics and Scientific Writing, 5-7 July 2018, Ayush Centre of Excellence, Savitribai Phule Pune University, Pune
27. How to improve surgeon’s participation, Indian Society of Gastroenterology, Brain Storming, Hyderabad, 15 August 2018
29. Submission requirements for E-journals, Dr MP Khunteta Homoeopathic Medical College, Hospital and Research Centre, Jaipur, 25 August 2018
30. IMRAD format, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
31. Choosing a journal, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
32. Editorial process, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
33. Results/Tables/Figures, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
34. Discussion, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
35. References Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
36. Scientific misconduct/Predatory journals, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
37. Conflict of interest, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
38. Results, Workshop on writing a research paper, 7-8 September 2018, AIIMS, New Delhi
39. Tables and figures, Workshop on writing a research paper, 7-8 September 2018, AIIMS, New Delhi
40. Discussion, Workshop on writing a research paper, 7-8 September 2018, AIIMS, New Delhi
41. Editorial process, Workshop on writing a research paper, 7-8 September 2018, AIIMS, New Delhi
42. Scientific misconduct, Workshop on writing a research paper, 7-8 September 2018, AIIMS, New Delhi
43. Choosing a journal, Workshop on writing a research paper, 7-8 September 2018, AIIMS, New Delhi
44. Segmental Anatomy of Liver: Clinical implication for a hepatologist, Indian Association for Study of the Liver, 14 September 2018, New Delhi
46. Introduction, PG Research Methodology Workshop, 28 September 2018, AIIMS, New Delhi
47. Tables/Figures, PG Research Methodology Workshop, 28 September 2018, AIIMS, New Delhi
<table>
<thead>
<tr>
<th>No.</th>
<th>Event</th>
<th>Date</th>
<th>Location</th>
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<tr>
<td>48</td>
<td>Discussion, PG Research Methodology Workshop</td>
<td>28 September 2018</td>
<td>AIIMS, New Delhi</td>
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<tr>
<td>49</td>
<td>Pitfalls in publishing, IASGCON 2018</td>
<td>7 October 2018</td>
<td>Chandigarh</td>
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<tr>
<td>50</td>
<td>Case capsules (3), CME on HPB Oncology</td>
<td>9-10 November 2018</td>
<td>Tata Memorial Centre, Kolkata</td>
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<tr>
<td>51</td>
<td>Informed consent, Trial registration, Ethics, ICMR-PGIMER Research Methodology Workshop</td>
<td>18-20 November 2018</td>
<td>PGIMER, Chandigarh</td>
</tr>
<tr>
<td>52</td>
<td>How to write a paper, ICMR-PGIMER Research Methodology Workshop</td>
<td>18-20 November 2018</td>
<td>PGIMER, Chandigarh</td>
</tr>
<tr>
<td>53</td>
<td>Scientific communication: Need, types and importance, Course on Scientific Communication</td>
<td>24-25 November 2018</td>
<td>Sanjay Gandhi Post-graduate Institute of Medical Sciences, Lucknow</td>
</tr>
<tr>
<td>54</td>
<td>IMRAD: Results, including tables and figures, Course on Scientific Communication</td>
<td>24-25 November 2018</td>
<td>Sanjay Gandhi Post-graduate Institute of Medical Sciences, Lucknow</td>
</tr>
<tr>
<td>55</td>
<td>Editorial process and peer review, Course on Scientific Communication</td>
<td>24-25 November 2018</td>
<td>Sanjay Gandhi Post-graduate Institute of Medical Sciences, Lucknow</td>
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<tr>
<td>56</td>
<td>Choosing a journal and pseudojournals, Course on Scientific Communication</td>
<td>24-25 November 2018</td>
<td>Sanjay Gandhi Post-graduate Institute of Medical Sciences, Lucknow</td>
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<tr>
<td>57</td>
<td>Shunt surgery: Certificate course in Hepato Pancreateo Biliary Surgery, Indian Chapter of International Hepato Pancreateo Biliary Association, Christian Medical College, Vellore</td>
<td>28 November 2018</td>
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<tr>
<td>58</td>
<td>Portal Biliopathy: Certificate course in Hepato Pancreateo Biliary Surgery, Indian Chapter of International Hepato Pancreateo Biliary Association, Christian Medical College, Vellore</td>
<td>28 November 2018</td>
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<tr>
<td>59</td>
<td>Benign liver lesions: Certificate course in Hepato Pancreateo Biliary Surgery, Indian Chapter of International Hepato Pancreateo Biliary Association, Christian Medical College, Vellore</td>
<td>28 November 2018</td>
<td></td>
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<tr>
<td>60</td>
<td>Management of suspected infected pancreatic necrosis, Panel Discussion, Symposium on Acute Pancreatitis</td>
<td>1 December 2018</td>
<td>Kochi</td>
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<tr>
<td>61</td>
<td>Lower G.I. bleed, A surgeon’s nightmare, FALS Colorectal-2018</td>
<td>7 December 2018</td>
<td>Fortis Memorial Research Institute, Gurugram</td>
</tr>
<tr>
<td>62</td>
<td>Keynote address: Doing meaningful research, a paradigm for medical college students</td>
<td>19 January 2019</td>
<td>Dayanand Medical College, Ludhiana</td>
</tr>
<tr>
<td>63</td>
<td>Portal biliopathy: Suspicion, pathophysiology and diagnostic algorithm, Mid-term CME of IHPBA</td>
<td>19-20 January 2019</td>
<td>Lovely Professional University, Jalandhar</td>
</tr>
<tr>
<td>64</td>
<td>Algorithmic approach to management of carcinoma gall bladder, Mid-Term CME of IHPBA</td>
<td>19-20 January 2019</td>
<td>Lovely Professional University, Jalandhar</td>
</tr>
<tr>
<td>65</td>
<td>Approach to a case of obstructive jaundice: How to evaluate, Hepatobiliary surgery</td>
<td>1 February 2019</td>
<td>Department of Surgery, IMS, BHU, Varanasi</td>
</tr>
<tr>
<td>66</td>
<td>Case Capsule: Obstructive jaundice, How to evaluate, Hepatobiliary surgery</td>
<td>1 February 2019</td>
<td>Department of Surgery, IMS, BHU, Varanasi</td>
</tr>
<tr>
<td>67</td>
<td>Ward round: Acute pancreatitis, Hepatobiliary surgery</td>
<td>1 February 2019</td>
<td>Department of Surgery, IMS, BHU, Varanasi</td>
</tr>
<tr>
<td>68</td>
<td>Types of manuscripts and what authors need to know, Pre-Conference workshop: Preparation of Scientific Research Publications, Clinical Research Advancing the Frontiers of Health, 12th Annual Indian Society for Clinical Research Conference</td>
<td>14 February 2019</td>
<td>New Delhi</td>
</tr>
<tr>
<td>72</td>
<td>Results, PG Research Methodology Workshop</td>
<td>8 May 2019</td>
<td>AIIMS, New Delhi</td>
</tr>
<tr>
<td>73</td>
<td>Tables/Figures, PG Research Methodology Workshop</td>
<td>8 May 2019</td>
<td>AIIMS, New Delhi</td>
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<tr>
<td>74</td>
<td>Discussion, PG Research Methodology Workshop</td>
<td>8 May 2019</td>
<td>AIIMS, New Delhi</td>
</tr>
<tr>
<td>75</td>
<td>References, PG Research Methodology Workshop</td>
<td>8 May 2019</td>
<td>AIIMS, New Delhi</td>
</tr>
<tr>
<td>76</td>
<td>Clinical perspectives on affordable medical devices, CBME MedTech Workshop</td>
<td>9 March 2019</td>
<td>IIT Ropar, Ropar, Punjab</td>
</tr>
</tbody>
</table>
Sujoy Pal

2. Moderator: Master video on SMA first approach to PD, 28th Annual conference of IASG, 4-7 October 2018, Chandigarh
5. Current role of surgery in Crohn’s Disease, Annual Meeting of the WB state Chapter of ISG, 8-9 February 2019, Kolkata
6. Cystic neoplasms of the pancreas, Annual conference of the India chapter of IHPBA, 15-17 February 2019, Jaipur
7. Panelist: Panel discussion on Severe Acute Pancreatitis, Annual conference of the India chapter of IHPBA, 15-17 February 2019, Jaipur
9. Moderator for panel discussion on Bile Duct Injury, Endolap MAMC, 1-3 March 2019, New Delhi
10. Surgery for IBD, 13th AIIMS Surgical week ENDOSURG, 28-31 March 2019, New Delhi
11. Debate: Duct to duct vs. HJ for bile duct repair following BDI, 13th AIIMS Surgical week ENDOSURG, 28-31 March 2019, New Delhi
12. AKI prior to transplant in CLD: Optimising strategies, Apollo LTHPS Conclave, 30-31 March 2019, Gurgaon

Nihar Ranjan Dash

1. Surgical complications of intestinal stoma, 11th Congress of the Asian Society of Stoma Rehabilitation, 22-23 February 2019, Osaka, Japan
2. From marking to maintenance of stoma, 13th AIIMS Surgical week ENDOSURG, 28-31 March 2019, New Delhi

Rajesh Panwar

1. Training in peer review: Does it help? ‘Celebrating 30 years of publishing’ of The National Medical Journal of India, AIIMS, New Delhi, 5-8 April 2018
2. Video presentation: Whipple’s procedure, 12th AIIMS Surgical week ENDOSURG, 19-22 April 2018, New Delhi
4. Video Presentation: Constructing Ileal pouch and pouch-anal anastomosis, 28th Annual conference of IASG, 4-7 October 2018, Chandigarh
5. Management of malignancies of anal canal (excluding adenocarcinoma), 13th AIIMS Surgical week ENDOSURG, 28-31 March 2019, New Delhi
6. Video presentation: IPAA, 13th AIIMS Surgical week ENDOSURG, 28-31 March 2019, New Delhi

Anand Narayan Singh

1. Surgical management for portal hypertension, 12th AIIMS Surgical week ENDOSURG, 19-22 April 2018, New Delhi
3. Surgical management of rectal prolapse, 13th AIIMS Surgical week ENDOSURG, 28-31 March 2019, New Delhi

Oral papers/posters presented

3. Biswas RS, Dash NR, Singh AN, Sahni P, Pal S. Outcome following hepatectomy for complex bile duct injuries, 28th Annual Conference of IASG, 4-7 October 2018, Chandigarh
4. Dash NR, Roy S, Krishna P, Madhusudhan KS. A case of haemosuccus pancreaticus treated with a technically challenging pancreatico-duodenectomy and a novel reconstruction of proper hepatic artery, 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland
5. Dash NR, Saraya A, Rashid S, Rashid S. Circulating miR-107 could be a potential biomarker for pancreatic ductal adenocarcinoma, 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland


12. Pal S, Kilambi R, Singh AN, Roy S, Bhoje A. Modified Appleby procedure in locally advanced carcinoma of the body of pancreas with inadequate circulation through the pancreaticoduodenal arcade, 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland


RESEARCH

Funded projects

Ongoing

1. Development of an indigenous affordable no-frill enteral feeding pump, Peush Sahni, DST, 3 years, 2015-2018, Rs 23.85 lakhs

2. Randomized controlled trial on skin preparation with chlorhexidine alcohol prep vs. savlon/betadine prep in elective gastrointestinal surgery, Peush Sahni, AIIMS, 5 years, 2012-2018, Rs 1.50 lakhs

3. Posterior (SMA-first) approach vs. standard pancreatoduodenectomy in patients with pancreatic cancer with special focus on circumferential resection margins and medium term survival outcome: A prospective randomized controlled trial, Sujoy Pal, AIIMS, 5 years, 2013-2018, Rs 5 lakhs

4. A preliminary study to document the genetic and molecular profile of resected colorectal cancers in India, Sujoy Pal, AIIMS, 3 years, 2016-2019, Rs 5 lakhs

5. Safety and effectivity of HIPEC in Gall Bladder Cancer, Nihar Ranjan Dash, AIIMS, 3 years, 2016-2019, Rs 5 lakhs
Departmental projects

Ongoing
1. A randomized trial of peri-operative low dose vs standard dose steroid regimen in patients of ulcerative colitis
2. Safety and efficacy of hyperthermic intra peritoneal chemotherapy in the management of gastric cancer
3. A prospective study to evaluate sarcopenia in adult Chronic Liver Disease (CLD) patients waiting for liver transplantation

Completed
1. Prevalence of frailty and its association with morbidity in elderly surgical patients
2. Incidence of Deep Vein Thrombosis (DVT) in major gastrointestinal surgery: A prospective observational study
3. Outcome of post cholecystectomy biliary stricture in a tertiary care centre
4. Impact of proton pump inhibitors on the development of anastomotic complications after gastric pull-up and cervical oesophago-gastric anastomosis, A randomized control study

Collaborative projects

Ongoing
1. Isolation and molecular characterisation of colorectal cancer stem cells (Biochemistry)
2. Development of singleplex PCR based test for detecting multiple hepatitis viruses simultaneously (Laboratory Medicine)
3. Isolation, identification and characterization of cancer stem cells from different histopathological grades of colorectal carcinoma (Biochemistry)
4. Elucidating the role of differentially expressed gene(s) in colorectal cancer stem cells (Biochemistry)
5. Genomics in Gall bladder cancer in Indian Population (Radiation Oncology)

Completed
1. Assessment of frailty in geriatric patients undergoing GI surgery (Geriatric Medicine)
2. An observational study of portal vein embolization in patients with hepatobiliary malignancies (Radiodiagnosis)

PUBLICATIONS
Journals: 16    Abstracts: 17    Chapters in Books: 1    Books: 1

PATIENT CARE

OPD
Total number of new patients seen: 3,471    Total number of old patients seen: 6,925

Specialty clinics
Department is running a daily clinic for stoma patients.

Special laboratory facilities
Anal manometry, Oesophageal manometry, 24-hour ambulatory oesophageal pH monitoring, Endotraining laboratory.

Inpatients
Total Surgical procedures: 607    Elective: 480    Emergencies: 127

Special interest areas
Biliary obstruction: 130    Portal hypertension: 26
Oesophageal cancer: 31    Carcinoma gall bladder: 49
Ulcerative colitis: 57    Upper GI haemorrhage: 04
Lower GI haemorrhage: 10    Acute pancreatitis: 12
Chronic pancreatitis: 10    Biliary strictures: 13
Pancreateo-duodenectomy: 57    Liver resections: 62

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor Peush Sahni delivered Dr Shrish K Bhansali Memorial Oration “Evolution of Surgery for Acute Pancreatitis” on 28 December 2018 at the 78th Annual Conference of Association of Surgeons of India held at Chennai. He was
President and Chair, Education Committee, Indian Association of Surgical Gastroenterology; President, Indian Association of Medical Journal Editors; Chair, Membership Committee, World Association of Medical Editors; Member, Editorial Board, Journal of Gastrointestinal Surgery (official Journal of Society for Surgery of the Alimentary Tract) and International Representative, Member Services Committee, Society for Surgery of the Alimentary Tract, USA; Member, International Committee of Medical Journal Editors; Member, Ethics Committee, Medical Council of India; Member, Board of Studies, AIIMS, Bhubaneswar.

Professor Sujoy Pal completed the tenure of Founder President of Liver Transplantation society of India in November 2018 and was nominated as the Past President (LTSI) for the year 2018-2019. He is a member of the Scientific committee of the Indian Association of Surgical Gastroenterology, Gall bladder Cancer Registry Working group of the IHPBA and editorial board member of Indian Journal of Gastroenterology. He is also the Chief Public Information Officer of the Department of GI Surgery under the RTI Act.

Professor Nihar Ranjan Dash was re-elected as President, Indian Ostomy Society and organized the Annual Meeting of the Indian Ostomy Society. He was reviewer for European Radiology, BMC Surgery, BMC Case Reports and Tropical Gastroenterology. He was appointed Expert for Union Public Service Commission in Surgery with specialization in GI Surgery, interviews of Lecturer Surgical Gastroenterology in Health and Medical Education Department, Jammu and Kashmir, Central Drugs Standard Control Organisation (CDSCO), Prashna India, ICMR Gall Bladder Task Force, and selection of Faculty in the Department of Surgical Gastroenterology, AIIMS, Bhubaneswar.

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<th>9.15. Geriatric Medicine</th>
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<tr>
<td><strong>Professor and Head</strong></td>
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<tr>
<td>AB Dey</td>
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<tr>
<td><strong>Assistant Professors</strong></td>
</tr>
<tr>
<td>Prasun Chatterjee</td>
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<tr>
<td>Avinash Chakrawarty</td>
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<tr>
<td>Vijay Kumar</td>
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HIGHLIGHTS

The Honorable Prime Minister Shri Narendra Modi laid the foundation stone of the National Centre for Ageing at AIIMS on 29 June 2018. Shri J P Nadda, Union Minister of Health and Family Welfare, Shri Ashwini Kumar Choubey and Smt Anupriya Patel, Ministers of State for Health and Family Welfare were also present at the event. The National Centre for Ageing will provide “state of art” clinical care to the elderly population and shall play a key role in guiding research in the field of geriatric medicine and related specialties. The centre will also be a key training facility for undergraduate and post graduate courses. The centre will provide multi-specialty health care with 180 general ward beds and 20 ICU beds. It will be developed at a cost of Rs 330 crores. The Department of Geriatric Medicine organized 4th International Congress on Gerontology and Geriatric Medicine along with the Asia Pacific Geriatric Medicine Network Conference at All India Institute of Medical Sciences on 15-16 November 2018.

EDUCATION

The department is the largest postgraduate Department of Geriatric Medicine in India. In addition to active participation in institutional academic activities like clinical combined rounds the department placed major focus on postgraduate training with five sessions of teaching every week. Dr Manjula Gupta, Professor, Department of Medicine, Gandhi Medical College Bhopal, spent two weeks in the department as an observer establishing a Geriatric Service in her hospital.

CMEs/Workshops/Symposia/National and International Conferences

1. 4th International Congress on Gerontology and Geriatric Medicine along with the Asia Pacific Geriatric Medicine Network Conference, 15-16 November 2018, New Delhi

Lectures delivered

AB Dey

1. Progress in Fragility Fracture Network activities in India with special reference to hip fracture management strategies, 7th FFN Global Congress, 5 July 2018, Royal College of Surgeons, Ireland, Dublin, Ireland
2. How to provide ortho-geriatric care in different healthy care environments, 7th FFN Global Congress, 6 July 2018, Royal College of Surgeons, Ireland, Dublin, Ireland
3. Future perspective of fragility fracture care: Geriatric medicine in India, 7th FFN Global Congress, 7 July 2018, Royal College of Surgeons, Ireland, Dublin, Ireland
4. Conceptualization of an Ortho-geriatric Unit in a Tertiary Care Hospital, 6th International Conference of the Geriatric Orthopedic Society of India-GOSICON-2018, 8 September 2018, All India Institute of Medical Sciences, New Delhi
5. Progress of FFN in India, Asia-Pacific Regional Expert Meeting on the Prevention and Management of Fragility Fractures, 24 November 2018, University of Tokyo, Tokyo, Japan
8. ICOPE pilot study for validation in India, CCHA Work stream onICOPE Pilots and Implementation, 21 February 2019, Miami, USA

Prasun Chatterjee
1. Euthanasia—The Right Right, TEDX Talk, 21 October 2018, Indian Institute of Technology, Indore, Madhya Pradesh
2. ICOPE implementation in India, CCHA Work stream onICOPE Pilots and Implementation, 21 February 2019, Miami, USA

Oral papers/posters presented
5. Bansal R, Role of comprehensive geriatric assessment in predicting post-operative delirium in major orthopedic surgery in Indian elderly, 16th Annual Conference of Indian Academy of Geriatrics (IAG), 8 December 2018, Government Medical College, Kota
7. Devangan G, Association of sarcopenia and mid upper arm circumference in older Indian population, 4th ICGGM (International Congress on Gerontology and Geriatric Medicine), 16 November 2018, AIIMS, New Delhi
8. Devangan G, Association of sarcopenia and low calf circumference in older Indians (won 1st prize), 16th Annual Conference of Indian Academy of Geriatrics (IAG), 8 December 2018, Government Medical College, Kota
9. Devangan G, Association of sarcopenia and mid upper arm circumference in older Indian population, International Conference on Frailty and Sarcopenia Research (ICFSR 2019), 21 February 2019, Miami, USA
10. Saini M, Gait and balance assessment in patients attending memory clinic, 16th Annual Conference of Indian Academy of Geriatrics (IAG), 8 December 2018, Government Medical College, Kota
11. Kumar P, Cardiovascular status and Geriatric syndrome in the very old population, 16th Annual Conference of Indian Academy of Geriatrics (IAG), 8 December 2018, Government Medical College, Kota
12. Singhal S, Serum creatinine and cystatin C based index can be a screening biomarker for sarcopenia in older population, 4th ICGGM (International Congress on Gerontology and Geriatric Medicine), 15 November 2018, AIIMS, New Delhi
13. Singhal S, Serum creatinine and cystatin C based index can be a screening biomarker for sarcopenia in older population, GERICON–18, 16th Annual Conference of Indian Academy of Geriatrics, 8 December 2018, Government Medical College, Kota (Best poster award)
16. Singh A, Serum Sirtuin level in Alzheimer’s Disease as a window for the novel diagnostic marker, 14th International Conference on Alzheimer’s and Parkinson’s Diseases, 2019, 31 March 2019, Congress Center Lisbon, Lisbon

RESEARCH

Funded projects

Ongoing
1. Harmonized Diagnostic Assessment of Dementia (DAD) for Longitudinal Aging Study of India (LASI), AB Dey, NIH, 3 years, 2015-2019, Rs 528 lakhs
2. Longitudinal Aging Study of India (LASI), AB Dey, MoHFW, 4 years, 2015-2019, Rs 5 lakhs
3. www.oldagesolutions.org, A web portal for older people and their care givers, AB Dey, DST, 3 years, 2019-2022, Rs 47.38 lakhs
4. Effect of multimodal intervention in subjective impairment in comparison with health awareness, Prasun Chatterjee, DST, 2 years, 2018-2020, Rs 38.52 lakhs

Departmental projects

Ongoing
1. Impact of Nordic Walking training on functional status in the very old: A randomized control trial
2. Geriatric assessment of patients with hematological malignancies (Multiple Myeloma) by a newly developed scale for older persons with malignancy for their initial assessment, Prognostication and care
3. Evaluation of novel intracellular proteins in serum as marker of aging
4. Study of skeletal muscle regeneration in old age
5. Assessment of autonomic function across frailty status in Indian Elderly
6. Randomized Placebo Controlled Trial to assess clinical and immunological efficacy of Pneumococcal Vaccine In Indian Older Adults
7. Cardiopulmonary testing in the older Indian adults attending the Geriatric Medicine OPD
8. Development of a new clinical frailty scale in older adults
9. Biomarkers and diagnostic tools of Sarcopenia in Indian older population
10. One carbon metabolism and cognitive impairment in older Indians
11. Establishment of a clinical construct of intrinsic capacity in older adults
12. Estimation of Novel Proteins among Older Subjects as Biomarkers for Cognitive Impairment
13. Predictor of survival following hospitalization for illness of recent onset among the oldest old (>85 years)
14. Observation of Sarcopenia in community setting
15. Caregiver stress and burden among carers of cognitively impaired individuals
16. Incidence and prevalence of delirium and it’s socio demographic, clinical and biochemical correlates in geriatric population
17. Biological ageing indicators and its correlates in older Indians

Completed
1. Study of older patients undergoing elective orthopedic procedure in Indian Tertiary Care Hospital
2. Study of cognition in frail older adults
3. Gait and balance assessment in patient attending memory clinic
4. Clinical, biochemical and radiological profile in mild behavior impairment
5. Comprehensive geriatric assessment of older adults attending fragility clinic in a tertiary health care setting in India
6. Collaborative Multi-centric Clinical Trial to study the effect of Ayush Rasayana (A and B) on ageing in apparently healthy elderly subjects
7. Predicting frailty in Indian hospital setting; comparison of three indicators
8. A randomized clinical trial on the effect of Laser Therapy treatment on diabetic peripheral neuropathic pain in older adults
9. Impact of Nordic Walking training on functional status in the very old: An RCT
PUBLICATIONS
Journals: 7    Chapters in Books: 2

PATIENT CARE
The department provided daily OPD service and once a week afternoon Memory Clinic. During the year 51,365 (new and revisit) consultations were provided to patients in OPD and 412 (202 new and 210 old) patients were seen in the Memory Clinic. Rehabilitation services from the Day Care service of the department was provided to 14,345 patients. In the Geriatric Medicine Ward 1,401 patients were admitted during the year.

Community Service
The faculty and residents of the department participated in health camps for senior citizens organized by non-governmental organization Healthy Aging India in old age homes in Delhi NCR region.

AWARDS, HONORS AND SIGNIFICANT EVENTS
Professor AB Dey was invited to participate in WHO Clinical Consortium on Healthy Ageing meeting on 11-12 December 2018 in Geneva. Dr AB Dey was the Section Editor of the Section Gerontology in API Textbook of Medicine, 11th Edition.

VISITING SCIENTISTS
Dr Nandu Goswami, Associate Professor from Medical University of Graz, Austria Priv. Dozent, Otto Loewi Research Center for Vascular Biology, Immunology and Inflammation visited the department in February 2019.

9.16. Haematology

Professor and Head
Renu Saxena

Professors
HP Pati
S Tyagi
M Mahapatra
Tulika Seth

Assistant Professors (contract)
Mukul Agarwal
S Sazawal
Rishi Dhawan
Suman Lata

Scientist I
Ravi Ranjan
Ravi Kumar

HIGHLIGHTS
- The department of hematology was involved in utilizing cutting edge technology like real time PCR/PCR/flowcytometry for the diagnosis and management of hematological disorders. It was involved in routine diagnosis and management of patients with hematological disorders
- The department continues to perform allogeneic hematopoietic stem cell transplants for aplastic anemia, thalassemia, leukemias and myelodysplastic syndrome
- The ISHTM-AIIMS external quality assessment programme for hemogram, conducted by Department of Hematology, AIIMS with Dr R Saxena as coordinator, was accredited for further two years as PT provider by NABL
- Department of Hematology, with Dr R Saxena as Chief Investigator, continued to be regional training centre by International Society of Hemostasis and Thrombosis in collaboration with the Institute of Experimental Hematology and Transfusion Medicine, University Clinic Bonn
- National Policy for control of thalassemia and hemoglobinopathies and also for hemophilia was made by MOH through the endeavours of faculty of the Department of Hematology, AIIMS
EDUCATION

The department continued to conduct DM Clinical Hematology and DM Hemato-pathology courses along with PhD programme.

The faculty continues to take undergraduate classes for Hematology and Medicine, and Clinical case studies for Department of Paediatrics students. It also continues to train the MD Pathology students in Hematology. The department has provided training in the field of clinical and laboratory hematology to 2 doctors from other institutions for two weeks each. Also 7 MSc students also undertook short-term training hematology for two months each, during this year.

CMEs/Workshops/Symposia/National and International Conferences

- The department organized National Hematology Update-XI on 14-15 April 2018
- It also organized workshops on haemophilia and Central Line Insertions and Care on 13 April 2018 at AIIMS

Lectures delivered

Renu Saxena

1. Interpretation of automated hemogram, National Hematology Conference, 29 April 2018, Varanasi
2. Pathogenesis of Thrombotic Stroke in Young: Indian Scenario, Workshop on “Genomics Based Translational Approaches for High Altitude Induced Maladies: Special Reference to Thrombo-Embolic Disorders”, 4, 5 October 2018, DRDO, Delhi
3. Risk stratification in AML—Where are we now, Indian Society of Haematology and Blood Transfusion (ISHBT), 26-28 October 2018, Kochi, Kerala
4. Strengthening diagnostic infrastructure in India, Initiative on Hemophilia Care-IV, 17 April 2018, New Delhi
5. Bleeding in Females, 8th National Haemostasis Update (NHU), 11 August 2018, Bengaluru
6. Hemostatic abnormalities in chronic liver diseases, ISTH-ILBS Symposium on coagulopathy in liver disease, 2 March 2019, New Delhi
7. Laboratory services, 3rd Foundation Training Programme (FTP) for GDMOs under CHS, 6 September 2018, New Delhi
8. Carrier detection and prenatal testing in bleeding disorders, Seminar on Women with Bleeding Disorders organized by HFI, 16 September 2018, New Delhi
10. Flow cytometry in pediatric haematolymphoid malignancies, CME on Paediatric Pathology, 16 March 2019, NOIDA
11. Quality control in Hematology, NMLPW, 23 July 2018, AIIMS, New Delhi
12. Panelist, Sickle Cell Anaemia: Clinical Symptoms, diagnosis and treatment, Rajasthan Conclave-6, 20-22 October 2018, Jodhpur

HP Pati

1. Basic approach to bleeding disorders, National Haematology Update, 7-8 April 2018, New Delhi
2. Thrombocytopenia, pathogenesis and approach to Diagnosis, 2nd Haematology Update, 27-29 July 2018, Jodhpur
3. MPN: Still a morphological domain, Northeast chapter of ISHTM, 22-23 November 2018, Guwahati
4. Laboratory approach on Non-immune hemolytic anemias, 59th ISHBT, 26-28 October 2018, Kochi
5. Aging Hemopoietic Stem Cells and its reversibility, 59th ISHBT Conference, 26-28 October 2018, Kochi
6. Diagnosing chronic hematological malignancy starts with physicians, 38th Annual Conference of APICON, 10-11 November 2018, Burla
8. Advances in MDS, Eastern Hematology Group—ASH Highlights, 19 January 2019, Bhubaneswar

M Mahapatra

1. Venous Thromboembolism in India, Highlights of ASH in Asia-Pacific, 23-24 February 2019, Bangkok, Thailand
2. Acute Myeloid Leukemia: Moving beyond 7 +3, EHG-ASH Highlights, 19 January 2019, Bhubaneswar, Odisha
4. Immune Thrombocytopenic Purpura: Diagnosis and Management, 10th Annual Conference of Odisha Hematology, 10-11 November 2018, Berhampur, Odisha
6. How I treat Aplastic Anemia, 2nd Hematology Update, 28-29 July 2018, Jodhpur, Rajasthan

Seema Tyagi
1. Optimal utilization of thrombophilia testing, 2nd National Update in Hemato-Pathology, 21-23 December 2018, Mumbai
2. HPLC/CZE for diagnosis of Hemoglobinopathies, National Hematology Update: XI 2018, 14 April 2018, AIIMS, Delhi

Tulika Seth
1. Evidence based medicine, CEU Evidence Based Medicine Workshop, 31 March and 1 April 2018, New Delhi
2. Paediatric palliative care, 17th Annual Conference on Palliative Care. Cansupport and IRCH, AIIMS, 15 April 2018, New Delhi
3. Panel discussion—inborn errors, 3rd South Asian and 19th Asian LSD Symposium, Satellite Workshop on Gaucher Disease, 22 April 2018, New Delhi
4. Paediatric prophylaxis: Is India poised? Initiative on hemophilia care IV, 17 April 2018, New Delhi
5. Hemophilia workshop management and complication in hemophilia therapy, Xth NHU, 13-15 April 2018, New Delhi
6. Moderator panel discussion CML and discussion on CML AP, Xth NHU, 13-15 April 2018, New Delhi
7. Oleptiss, new iron chelator, World Thalassemia Day, Seminar the basics of Thalassemia Management, Care and Prevention, 8 May 2018, New Delhi
8. Prophylaxis for hemophilia and management of complications, Hemophilia Patients Awareness Programme, 13 May 2018, New Delhi
10. Panelist, For panel discussion on Tobacco Control, ISCO First Conference on Environmental and Occupational Determinants of Cancer: Interventions for Primary Prevention, 26-27 May 2018, New Delhi
11. Panelist session 5: Pediatric diseases, EBMT Highlights 2018, APAC Region, 26-27 May 2018, New Delhi
12. Moderator for panel discussion and case scenario: How to avoid and deal with misconduct? Organization and Ethics of Biomedical Research Publications 1 June 2018 ICMR-NIRTH, Jabalpur, 1 June 2018, Jabalpur
13. Diagnosis and treatment of inhibitors in India, Changing the landscape of hemophilia management in India, 9 June 2018, Bangalore
14. Hemophilia scenario in India, current management, Raising the bar in hemophilia management, 5 July 2018, New Delhi
15. Need for establishment of HSCT donor registry in India, Meeting under chairperson Secretary H&FW for “Establishment of Stem Cell Donor Registry”, 5 July 2018, New Delhi
16. Panelist discussion—Survivorship, Best of ASCO, 29 July 2018, New Delhi, Case discussion on update in MPN and CML, Best of EHA, 4 August 2018, New Delhi
17. Muscle bleed, And Ilio-Psoas Bleed, 8th National Haemostasis Update (NHU), 11-12 August 2018, Bangalore
18. Diagnosis and Management of Patients with Inhibitors in Hemophilia, ESI Doctors Meet, 18-19 August 2018, Mumbai
19. International panel discussion with Dr P Dolan, UK on ITP with case discussion, Webcast in 5 cities in India, ITP Update, 17 August 2018, New Delhi
21. Case discussion on lymphomas, Presented difficult lymphoma case, Mumbai Hematology Group Meeting 2018 and Indian B Cell Malignancies Conclave, 1,2 September 2018, Mumbai
22. Case Presentation Polycythemia Vera, ASH Update, 24 January 2019, Mumbai
23. Genetics of bleeding disorder, Conference for Women, hemophilia, HFI, 2 February 2019, Hyderabad
24. Panel discussion, Normal coagulogram and inherited bone marrow failure syndrome, PEDICON, 8 February 2019, Mumbai
26. Indian changing scenario of hemophilia, Delhi State Hemophilia Meet, 23 February 2019, New Delhi
27. Moderator panel discussion multiple myeloma monitoring updates, Oncocon 2019, 3 March 2019, New Delhi
30. Moderator panel discussion, Prophylaxis in Haemophilia-challenges and ways to overcome them
31. Panelists Dr Maitreyee Bhattacharyya Dr S Das Dr Santanu Basu, Pioneering disability free haemophilia in India, 30-31 March 2019, Gurugram

Mukul Aggarwal
1. Introduction to central lines, indications and types, National Hematology Update XI, 13 April 2018, Delhi
2. Learning through interesting case (A case of paraplegia), National Hematology Update XI, 14 April 2018, New Delhi
3. BCR ABL negative myeloproliferative neoplasm: Case based panel discussion, Second Haematology Update, 29 July 2018, Jodhpur, Rajasthan
4. Haematologist’s perspective on Haemophagocytic Lymphohistiocytosis, Second Haematology Update, 29 July 2018, Jodhpur
5. Case presentation-MF, 22 September 2019, New Delhi
7. Panel discussion-BMT, Year in Review 2018, 16 February 2019, New Delhi
8. Case presentation-sickle cell anemia, Best of ASH, 2018, 26 January 2019, Mumbai

Oral papers/posters presented


18. Sazawal* S, Chhikara S, Chaubey R, Mahapatra M, Seth T, Saxena R, Chronic myeloid leukemia with rare fusion transcript, b2a3 (e13a3) bcr--abl1: A report of Four cases from aiims, HAEMATOCON 2018, Kochi, 25-28 October 2018


* Won awards

RESEARCH

Funded projects

Ongoing

1. Diagnostic efficacy of digital hemoglobinometer (TrueHb), HemoCue and non-invasive devices for screening patients for anemia in the field settings, Renu Saxena, DHR, 1 year, 2018-2019, Rs 25 lakhs

2. Socio-ecological impact and tribal health: A study on epidemiological diversity of thalassemia mutations among tribes in India and impact of socio-ecological influences, Renu Saxena, DST, 3 years, 2017-2020, Rs 4.38 lakhs per year

3. Safety of turoctocog alfa for prophylaxis and treatment of bleeding episodes in previously treated patients with moderate or severe Haemophilia A in India, Tulika Seth, Novo Nordisk India Private Ltd, 1 year.

4. Clinical outcomes of CLL and MCL patients treated with Ibrutinib: An observational retrospective medical chart review from India, Tulika Seth, Siro Clin Pharma Pvt Ltd, 1 year, 2018-2019
Completed

1. Myeloproliferative neoplasms Epidemiological Registry in Growing and Emerging markets The MERGE Study, Tulika Seth, Novartis India, 3 years, 2015-2018
2. Role of activated platelets in the regulation of monocyte functions and immune responses in hemolytic disorders, Tulika Seth, DBT, 1 year, 2017-2018

Departmental projects

Ongoing

1. Impact of molecular genetics on the phenotype of Indian sickle cell syndrome patients
2. Role of hMICL in BCR-abl 1 negative MPNs by FCM
3. Immunophenotyping and MRD analysis in Multiple Myeloma
4. Flow cytometric ploidy analysis in B-cell acute lymphoblastic leukemia
5. Assessment of Nutritional status/Parameters in acute leukemia patients undergoing induction chemotherapy
6. Efficacy of low dose rasburicase in management of tumor lysis syndrome in leukaemia and lymphoma patients
7. Abdominal infections in immunocompromised hosts: A clinical, microbiological and radiological correlation
8. Nilotinib versus Imatinib deep molecular response in CML
9. Role of IHC with CD 61 and p53 on bone marrow biopsies in enhancing diagnosis in suspected MDS cases-retrospective and prospective study
10. Correlation of serum iron profile and Hepcidin level in patient with microcytic hypochromic anemia
11. Study of bone marrow lymphocyte subset in acute myeloid leukemia Chief guide
12. Study of expression of cereblon protein by immunohistochemistry in newly diagnosed and treated multiple myeloma patient
13. To compare the diagnostic performance of Whole Body Low dose Computed Tomography (WB LDCT) and Conventional Skeletal Survey (CSS) in diagnosis and management of patients with Multiple Myeloma (MM) in a Tertiary Care Centre
14. Effect of tyrosine kinase inhibitor on sperm parameters and pituitary gonadal axis in male patients with Chronic Myeloid Leukaemia
15. Imatinib dose escalation in CML: Indication, responses and outcomes

Completed

1. Immunohistochemistry as a tool to detect calreticulin mutation in patients of primary myelofibrosis and essential thrombocythemia and its comparison with PCR
2. An observational study on the prevalence and factors leading to non adherence to imatinib therapy in patients of chronic Myeloid Leukemia
3. Priyanka thesis
4. Comparison of allopurinol and Febuxostat for prevention of hyperuricemia in Acute leukemias
5. Uday thesis
6. Evaluate the role of tissue factor and tissue factor pathway inhibitor gene polymorphisms in the pathogenesis of deep vein thrombosis in India
7. To understand the cumulative effect of high dose cytarabine as consolidation in Acute Myeloid Leukemia
8. Evaluation of ‘AML Maturity Score’ as a marker of prognosis in patients with Acute Myeloid Leukemia by quantitative immune-phenotyping by Flow Cytometry

Collaborative projects

Ongoing

1. Minimal residual disease in Multiple myeloma, IRCH
2. Prevalence of anaemia among community-dwelling elderly persons in rural Ballabgarh, district Faridabad, Haryana, CCM
3. An observational study of the association of plasma activated Protein C and other coagulation factors with post primary PCI coronary re-flow phenomenon in patients of acute ST elevated myocardial infarction undergoing primary PCI, Cardiology
4. Study of aspirin and clopidogrel resistance by platelet aggregation and its association with adverse outcomes in Indian Stable Coronary Artery Disease Patients, Cardiology
5. Randomized control trial to evaluate safety and efficacy of intra vitreal injection of autologous bone marrow derived stem cells in acute cases of ischaemic central retinal vein occlusion, Dr RP Centre for Ophthalmic Sciences
6. A population based prospective cohort study to unravel the causes of stroke and cognitive decline: A cross cultural perspective, DBT International Co-Operation Division and Erasmus Medical Center Rotterdam, Netherlands, Clinical Epidemiology Unit, AIIMS
7. Ocular GVHD in post allogeneic HSCT patients, Dr RP Centre for Ophthalmic Sciences
8. Immune reconstitution in Haplo Identical HSCT, Transplant Immunology and Immunogenetics
9. Multiple Myeloma, Biochemistry
10. Standardization of voriconazole/posoconazole levels for Paediatric Hematology Patients, Microbiology
11. Study of efficacy of topical rituximab encapsulated in nanoparticle in oral pemphigus vulgaris, A randomized double blinded placebo-controlled trial, Dermatology

Completed
1. Directly observed iron supplementation during pregnancy in a rural population in Haryana: A randomized control trial, CCM
2. Epidemiology and prognostic utility of cellular components of hematological system in sepsis, Anaesthesia
3. A study of endothelial Nitric Oxide Synthase (eNOS), Nitric Oxide (nO), cytokinese, vascular endothelial growth factor, A (Vegf-A) in lower limb arterial disease and the alteration with the clinical outcome, Surgery
4. The effect of negative pressures used during ultrafiltration on erythrocyte, CTVS

PUBLICATIONS
Journals: 34    Abstracts: 24    Chapters in Books: 8

PATIENT CARE

Laboratories of department of hematology have following state of the art facilities:
1. Bone marrow aspirate, bone marrow biopsies and peripheral smears
2. Immunohistochemistry
3. Molecular genetics
4. Hemolytic anemia workup
5. Flow cytometry
6. Capillary electrophoresis for hemoglobinopathies
7. Coagulation workup for inherited and acquired bleeding disorders
8. Platelet aggregometry
9. Thrombophilia workup
10. Prenatal diagnosis of Hemophilia and hemoglobinopathies

Clinical Services
(a) OPD runs all 6 days:
1. Monday: CML, Hemato-oncology
2. Tuesday: Transplant Clinic
3. Wednesday: Hemolytic anemias and ITP, CMPD
4. Thursday: Coagulation and Bleeding clinic
5. Friday: AA, CLPD
6. Saturday: Leukemia Survivor clinic
(b) In Patient care:
i) Inpatients: C2, C6, D6, Emergency ward, Private wards
ii) Stem cell Transplant: 4 new allogeneic transplants per month
iii) Hematology Day care
Hematology OPD
New patients: 5984  Follow-up patients: 13,414  Chemotherapy: 3800

Hematology Day Care
Admission 13742

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Male | 5513  | Female | 2741  | Children | 5488 |

(a) Community services

The department has been active in the area of thalassemia and hemophilia awareness at both community sensitization programmes, and public forums at AIIMS and with the thalassemia and Hemophilia Society. The new disability bill included inputs from the department faculty. A workshop for women carriers of hemophilia conducted with both genetic counseling and psycho-social counseling by department faculty. The department conducted ISHTM—AIIMS external quality assessment programme for hemogram for 3,000 labs across India under Dr R Saxena as coordinator.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Professor Renu Saxena** was member of expert committee meeting on INSPIRE fellowship, DST; Member, Project Review Committee, ICMR; Member of Taskforce on Human Genetics and Genome Analysis-DBT; Member New Drug Advisory Committee for Hematology and Oncology, DCGI; Member of Medical Device Advisory Committee, DCGI; Expert member, NABL (DST) Accreditation Committee for PT provider; Chairman, Ethics committee, ICMR Campus 2; Member Ethics Committee, IIT Delhi; Coordinator Indian Society of Hematology and Transfusion Medicine, AIIMS EQAP Programme.

**Professor HP Pati** was Professor J B Chatterjea Memorial Lecture (Oration) at Professor J B Chatterjea Centenary celebration and BeSCON-2019, Kolkata, 16-17 February 2019; Dr Malti Sathe Oration Award 2018, Indian Society of Hematology and Blood Transfusion at 59th Annual Conference (HEMATOCON), Kochi October 2018; Professor J B Chatterjea Memorial Lecture (Oration) 2019 at Professor J B Chatterjea Centenary Celebration and Bengal Society Conference-2019, Kolkata 16-17 February 2019; Continuing as Editor-in-Chief, Indian J hematology and blood transfusion.

**Professor M Mahapatra** was Honorary Secretary of Indian Society of Hematology and Blood Transfusion (ISHBT); Elected as Vice-President of Indian Society of Hematology and Blood Transfusion (ISHBT); Represented as an Indian leader to attend Annual Congress of European hematology Association (EHA) at Stockholm, Sweden to discuss with European leaders in hematological education and research collaborations; Represented as an Indian leader to moderate a session on hemostasis during Highlights of ASH in Asia-pacific at Bangkok, Thailand in March 2018.

**Professor Tulika Seth** was Member Secretary of ethics committee CanSupport; Member of Ethics Committees, AIIMS-PG; Member of Ethics Committees, Delhi University; Member of Ethics Committees, AYUSH; Nominated Member of NBE for Hematology; Selected to contribute to framing National policy of Thalassemia and Hemophilia; Was Session Co-Ordinator for Hematology (leukemia, lymphoma, myeloma) of best of ASCO 28-29 July 2018, New Delhi; Conducted international webcast with UK expert on ITP, simultaneously transmitted to 5 cities in India.

VISITING SCIENTIST

- Professor Parinda Mehta, Cincinnatti, Childrens Hospital, 7 April 2018
- Professor Francesco Passamonti from Varese, Italy, 22 October 2018
- Dr Nitin Jain, MD Anderson USA
- Professor Francesco Passamonti, Professor of Hematology at the University of Insubria, Varese, (Italy) and Head of the Hematology at the Ospedale di Circolo of Varese (Italy).
### 9.17. Hospital Administration

**Professor and Head**  
Sidhartha Satpathy

**Medical Superintendent, Dr RP Centre**  
Shakti Kumar Gupta

**Medical Superintendent, Main Hospital**  
DK Sharma

**Professors**
- IB Singh
- Sanjay Arya
- Aarti Vij

**Associate Professors**
- Nirupam Madaan
- Anoop Daga
- Amit Lathwal
- Mahesh R

**Assistant Professors**
- Angel Rajan Singh
- Vijaydeep Siddharth
- Parmeshwar Kumar
- Jitender Sodhi
- Abdul Hakim

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### EDUCATION

The department is running a postgraduate degree programme for medical graduates, MD (Hospital Administration). The earlier course viz. MHA (Masters in Hospital Administration) was started in February 1966, for the first time in India and has since been recognized as a distinct postgraduate discipline. Re-nomenclature of this course which was effective from January 2016, has been done in accordance with decision of Academic Committee (AC-113/10) duly ratified by GB (GB-152/7) during its meeting held on 13 April 2015. The Residency Programme in Hospital Administration focuses on ‘hands on’ training, where Resident Administrators are posted in the ‘Administrative Control Room’ of hospital, round the clock as ‘Duty Officers’, and coordinate all the hospital activities after duty hours. It is also the nerve centre of the hospital.

Faculty members conducted several training programmes for doctors working in various organizations including Central, State Governments, Paramilitary Forces and in various PSUs such as IICM, Ranchi and also other management institutes.

#### Short- and Long-Term Training

1. One Student of MD (HA) from BPKIHS, Dharan, Nepal

#### Continuing Medical Education

1. Organized 16th Healthcare Executive Management Development Programme (HxMDP) at Mysuru, Karnataka from 2 to 9 February 2019
2. Symposium on “Plant Based Nutrition for Prevention and Treatment of Chronic Diseases” on 30 July 2018 at Ramalingaswamy Board Room, AIIMS, New Delhi
3. Organized workshop on Communication Skills among Nursing Personnel at Board Room AIIMS, New-Delhi on 26 February 2019
4. Workshop on “Infection Prevention in Oral Health Care” on 10 April 2018 at CDER, AIIMS

#### Lectures delivered

**Sidhartha Satpathy**

1. NABH standards—Access assessment of care, Training programme on Quality and Accreditation for Senior Medical Officers of Royal Government of Bhutan, 23 April 2018, IIHMR, Dwarka, New Delhi
2. Overview of Laws applicable to hospitals and CPA-2 lectures, Senior Professional Programme (04/18) for Sr Medical Officers of IRMS, 7 May 2018, National Institute of Indian Railways, Vadodara, Gujarat
3. Overview of Laws applicable to hospitals and CPA-2 lectures, Senior Professional Course for Sr Admn Grade Officers of IRMS, 18 July 2018, National Institute of Indian Railways, Vadodara, Gujarat


6. CPA in hospitals and Medical Audit-2 lectures, Senior Professional Course for Sr Admn Grade Officers of IRMS, 17 October 2018, National Institute of Indian Railways, Vadodara, Gujarat

7. Patient related chapters NABH standards-5 lectures, Quality management and Accreditation of Health Care Organization Course, 30 October 2018, NOIDA, UP


9. Mock drills and return to normal functioning; Co-ordination with External agencies-2 lectures, Training Programme on District preparedness for PHEs, 16 January 2019, National Institute of Health and Family Welfare, New Delhi

10. Organizational Behavior Lab and Hosp topics-6 lectures, Training Programme on Hospital management and Administration for MS and GDMOs of Coal India Hospitals, 21-23 January 2019, Indian Institute of Coal Management, Ranchi, Jharkhand

11. Lecture on Medico-legal systems, Consumer Protection Act in hospitals and Open House on Healthcare Ethics, Hospital Executive Management Development Programme (HxMDP), 8-9 February 2019, Mysuru, Karnataka

12. Panel discussion on, Advances in Health-Care management Services, IIM, Ahmedabad, 16-17 February 2019, IIM, Ahmedabad

13. Bio-medical waste management—An overview, Training Programme on Hospital Management for Medical Officers of ONGC, 1 March 2019, IIHMR, Dwarka, New Delhi

14. Patient Care related chapters in NABH standards-5 lectures, Senior Prof Management Course for Sr. Medical Officers of Railways, 6 March 2019, National Institute of Indian Railways, Vadodara, Gujarat

15. NABH Standards—Organ related Chapters 6-10, ROM, CQI, FMS, HRM, IMS (5 lectures), Quality Management and Accreditation of Healthcare Organization by Academy of Hospital Administration, 13 March 2019, Noida, UP

Shakti Kumar Gupta

1. Quality and patient safety in Healthcare institutions—An Inescapable Necessity, Quality and Patient safety Conclave, 16 March 2019, Medical College, J&K

2. Importance of Pharmacokinetics in Government Hospitals, Procurement: Pharmacoeconomics Principles and Best Practice, 12 March 2019, India Habitat Centre, New Delhi

3. Challenges before Hospital Administrators and Changing Role of Hospitals, 16th Healthcare Executive Management Development Programme (HxMDP), 2-9 February 2019, Mysuru, Karnataka

4. Exploring the New Frontiers in Hospital Management, Nepal Netra Jyoti Sangh Britnagar Eye Hospital, 28 April 2018, Biratnagar, Nepal

DK Sharma

1. Disaster and Trauma Management, CME on/disaster and Trauma Management, 5-6 May 2018, Military Hospital, Jalandhar

IB Singh

1. A study on Incidence of Wrong Dose Administration, Errors in ICUs at AIIMS, New Delhi, Fourth International Conference on Medical and Health Sciences themed: “Improving Quality and Patient Safety in Health Care”, 9-11 November 2018, Thimpu, Bhutan


Sanjay Arya

1. 6 lectures on Special Programme on Hospital Management and Administration for Medical Superintendents, GDMO’s of Coal India Ltd, 7-9 February 2019, Indian Institute of Coal Management, Ranchi, Jharkhand

Nirupam Madaan

1. 4 lectures, Training Programme on Hospital Management and Administration for Medical Superintendents GDMOs, 27-29 January 2019, IICM, Ranchi
Anoop Daga
1. Hospital Support Services (4 lectures), Management Development Programme on Hospital Administration for Medical Officers, 17 February 2019, Indian Institute of Coal Management, Ranchi, Jharkhand
2. Lectures on various topics of ‘Quality in Hospital Support Services’, Contact Programme of PGQM and AHO for Gujarat Government, September 2018 and February 2019, Academy of Hospital Administration, NOIDA, Ahmedabad, Gujarat

Amit Lathwal
1. 6 lectures, Hospital Management and Administration, 27-29 January 2019, Indian Institute of Coal Management, Ranchi, Jharkhand
2. Resource faculty, Mass Casualty Incident and Trauma Nurse Co-ordinator Training Programme, 5 September 2018, IICM, Ranchi, Jharkhand
3. Resource Faculty, Training course on “District Preparedness for Public Health Emergencies”, 14 January 2019, NIHFW, New Delhi

Mahesh R
1. 6 lectures, Special Programme on Hospital Management and Administration for Medical Superintendents, GDMO’s of Coal India Ltd, 7-9 February 2019, Indian Institute of Coal Management, Ranchi, Jharkhand
2. 4 lectures on Research Methodology and Project Writing, Planning and Quality needs in OPD, Accident and Emergency Services, IPD and Human Resource Management, Quality Management and Accreditation of Health Care Organization [QM&AHO] Programme, 18-23 February 2019, Academy of Hospital Administration, NOIDA, Uttar Pradesh
3. 1 lecture on Management of Dietary Services, 94th Training Course on Hospital Administrator for Senior Hospital Administrators, 26 September 2018, National Institute of Health and Family Welfare, New Delhi

Angel Rajan Singh
1. 1 lecture on Health Risk Assessment and Management for Environment Pollution, Training programme for “Environmental Pollution and Its Health impacts”, 5 July 2018, Haryana Institute of Public Administration, Gurgaon, Haryana

P Kumar
1. 6 lectures, Training programme on Hospital Management and Administration for Medical Superintendents GDMOs, Non Specialist of Coal India Ltd at IICM, 4-6 February 2019, Indian Institute of Coal Management, Ranchi

Vijaydeep Siddharth
1. 6 lectures, Training programme on Hospital Management and Administration for Medical Superintendents GDMOs, Non Specialist of Coal India Ltd at IICM, 4-6 February 2019, Indian Institute of Coal Management, Ranchi, Jharkhand
2. 1 lecture, 95th Training Course on Hospital Administration for Senior Hospital Administrators, NIHFW, 14 February 2019, NIHFW, New Delhi
3. 2 lectures, Workshop on Patient Safety, Legal and Ethical Issues in Hospital Management, Agartala Government Medical College, 26-27 February 2019, Government Medical College, Agartala, Tripura
4. 1 lecture, Senior Nursing Officers Empowerment Programme, AIIMS, August to December 2018, AIIMS, New Delhi

Abdul Hakim
1. 6 lectures, Training programme on Hospital Management and Administration for Medical Superintendents GDMOs, Non Specialist of Coal India Ltd at IICM, 7-9 February 2019, Indian Institute of Coal Management, Ranchi, Jharkhand
RESEARCH

Funded projects

1. A study to assess the impact of application of software based process and system simulation in operationalization of out-patient department at National Cancer Institute, AIIMS, Angel Rajan Singh, Assistant Professor of Hospital Administration, AIIMS, 1 year, 2018-2019, Rs 4.5 lakhs

Departmental projects

Ongoing

1. A comparative study of the engineering department of select hospitals in Delhi with 100 and above beds, against standard guidelines
2. A study of experiences and scope of practice of nurses as transplant coordinators and to explore the status and position of potential donor referrals from the hospital before and after placement of nurse as transplant coordinators at the AIIMS Hospitals, New Delhi
3. A study of process handling of medico-legal cases at the Emergency Department of AIIMS from the perspective of systematic improvement
4. A study of the effectiveness of the “never use” list of abbreviations in medical prescriptions at AIIMS
5. A study of the leadership styles of unit heads/HoDs of various departments and its effectiveness on the work performance and well being of fellow doctors
6. A study of time utilization and effectiveness of Administrative nurses across AIIMS Hospital
7. A study of time utilization and effectiveness of nursing administrators in various clinical areas across All India Institute of Medical Sciences, New Delhi
8. Optimizing blood inventory management at a super-specialty blood centre in India
9. Study the impact of OPD information project in RAK OPD of AIIMS

Completed

1. A study on costing of management of cardiac patients admitted in CT Centre, AIIMS
2. Physical and chemical hazards identification and risk analysis for healthcare workers at AIIMS
3. To study the role of healthcare analytics in monitoring hospital indices at AIIMS

Collaborative projects

Ongoing

1. Evaluation of stress among MBBS students of a tertiary care teaching institution, Psychiatry
2. Evaluation of the impact of training amongst the food handlers in dietary services on knowledge, practices and beliefs of food safety behavior, Dietetics

PUBLICATIONS

Journals: 19

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Sidhartha Satpathy was nominated as Member of National Accreditation Board for Hospital and Health care providers (NABHI) as AIIMS representative by Director, AIIMS; Contributed as Expert to finalize National Guidelines on Infection Prevention and Control on 29-30 May 2018 under aegis of WHO Country Office at Manesar, Gurgaon; Participated as External Technical Expert of Assessment Committee for assessment of NTPC Project hospitals for “Swarn Shakti” awards during September-October 2018; Contributed to development of AIIMS Bhubaneswar as Mentor and Subject Expert to assist Selection Committee for Assistant Professor Hospital Administration and other non-Faculty posts at AIIMS, Bhubaneswar; Member of Visiting Committee to develop future road-map for Institute of Medical Sciences, BHU under the aegis of NitiAyog, Government of India; Expert Member of Committee for Development of Bhopal Memorial Hospital and Research Center (BMHRC) by Department of Health Research, GoI; Expert member of Committee for Development of Quality Standards in AB-PM JAY scheme under aegis of National Health Authority, New Delhi; Member of Building Committee of National Brain Research Institute, providing oversight for development of Auditorium, Academic Block and Laboratories; Contributed as Expert Member of Academic Audit Committee of IIHMR University, for improvement of academics as mandated by UGC; Member of Committee for rationalization of recruitment rules for posts at upcoming CAPFIMS under the aegis of Ministry of Home Affairs, Government of India; Contributed as Editorial Committee member of JAHA and IJRFHHA, and Reviewer for National Medical Journal of India; Contributed for development of National Cancer Institute at Jhajjar, Haryana; External Subject Expert Member of Selection Committee of PGIMER for post of Assistant Professor, Hospital Administration and Deputy Medical Superintendent.
**Dr Shakti Kumar Gupta** was honored with Capital Foundation National Award in September 2018 by Governor of Assam for tremendous contribution to the field of Health Care Administration; Awarded with Times Healthcare Achievers Award, 2018 by Times of India in Honor of Excellence in Healthcare; Member for the selection committee meeting for selection of Medical Superintendent and Nursing Superintendent on 19 January 2019 at New Delhi; Member for the master plan for AIIMS, Jammu at MoHFW, New Delhi on 22 January 2019; Member of the expert committee for setting of a Psychiatric and Mental Hospital at Juba, South Sudan from 2 to 5 November 2018; Member of National Executive Committee of Hemovigilance Programme of India at National Institute of Biological, Noida on 18 September 2018; Jury Member for the evaluation of prospective incumbates to the Mediivalley and Biovalley incubation parks at Vishakhapatnam on 11 September 2018; Expert for the panel selection committee for recruitment of Faculty in the Department of Hospital Administration at AIIMS, Bhopal on 6 September 2018; Honored with Chairman position for FICCI Taskforce Chair for Costing of Select Medical Procedures and to share the outcome of AIIMS studies on costing with FICCI; Member of the Board of Directors for International Association for Applied Management (IAAM), USA, 2018; Expert for the selection of candidates for the promotion/selection in the speciality of Hospital Administration on 1 August 2017 at Soura, Srinagar, Jammu and Kashmir; Honorary Consultant for National Mineral Development Corporation Limited for establishing 200 Bedded Multi Specialty Hospital, New Nagamar, Jagdalpur, Chhattisgarh; Programme Director for 3rd Lean Six Sigma Green Belt International Programme in Healthcare, New Delhi from 22 to 24 June 2018; Expert member for the standing selection committee for selection of “Faculty post” of NEIGRIHMS in the Department of Hospital Administration on 2 May 2018 at AIIMS, New Delhi; Attended Grand Finale of Healers of India Awards on 19 April 2018; Invited to “CME on Future of Healthcare Gen. Next” as Guest of Honor for inauguration of “Indo US Academy of Health and Hospital Administration” at Hyderabad on 15 April 2018; Attended the Symposium on Pharmacologists in Indian Healthcare System, Director’s Board Room, AIIMS, New Delhi on 15 April 2018; Attended CII Regional Lifesciences Summit 2018 at India Habitat Centre, New Delhi on 13 April 2018; Expert member of the Task Force in Healthcare at FICCI, New Delhi on 12 April 2018; Invited as an expert member for the selection committee for Casual Medical Officers at Institute of Liver and Biliary Sciences, Vasant Kunj, New Delhi on 9 April 2018; Honorary Board Member of the Patient Safety and Access Initiative of India Foundation; Honorary Board Member of the Patient Safety and Access Initiative of India Foundation; Chaired the Annual Conference of International Association for Applied Management held from 17 to 19 July 2018, Nevada, USA.

**Dr DK Sharma** was External Examiner for MD (Hospital Administration) at Nizam’s Institute of Medical Sciences, Hyderabad; Subject expert for recruitment of faculty on contractual basis for Department of Hospital Administration at AIIMS, Raipur; Subject expert for Faculty posts of Associate Professor (Hospital Administration) NEIGRIHMS, Shillong; Subject Expert for selection of faculty at Sanjay Gandhi Post Graduate Institute of Medical Sciences (SGPGI), Lucknow, UP; Visited NEIGRIHMS Shillong to attend meeting of the committee constituted by the MoH&FW for Finalization of Recruitment Rules of the post of Director, Dean and Medical Superintendent of NEIGRIHMS, Shillong and RIMS, Imphal; Visited Solina Srinagar (J&K) as an expert for conducting interviews of Deputy Medical Superintendent, Government Medical College (Jammu/Srinagar) in Health and Medical Education Department at J&K Public Service Commission, Srinagar; Member, Selection Committee, for the selection of Medical Officer for IIT Jammu; Visited Srinagar (J&K) as External Examiner for practical of MD Hospital Administration Annual Examination (Batch-2015) for Sher-I-Kashmir Institute of Medical Sciences, Soura Srinagar; External Expert, Standing Senior Staff Selection Committee Meeting for direct recruitment of Senior Medical Records Officer at SCTIMST, Thrivunanthapuram; Subject Expert, Standing Selection Committee meeting for Selection/Promotion of Faculty of Hospital Administration, Chief Nursing Officer and Medical Officer, PGIMER, Chandigarh; Chief Guest, Hospital Medicine Conclave 2018, Amrita Institute of Medical Sciences, Kochi; Subject Expert, Selection Committee meeting, Selection/Recruitment of Senior Resident of Hospital Administration, Bhubaneswar, AIIMS; Subject Expert, Selection committee meeting, Post of Medical Superintendent, SHKM Government Medical College, Nalhar, Nuh, Rohtak; Member of Board of Studies for MBA (HM), IIHMR University, Institute of Health Management Research, Jaipur; Visited Dehradun, Uttarakhand as an Examiner for the MHA Final Semester Viva-Voce and Dissertation for University Examination at Swami Rama Himalayan University (SRHU) Dehradun, Uttarakhand; Expert at Institute of Liver and Biliary Sciences, Vasant Kunj, New Delhi; Standing Selection Committee Meeting as an External Expert for selection of Faculty at AIIMS, Jodhpur; Subject expert for recruitment to the post of Chief Pharmacist and Sanitation Officer on deputation basis at AIIMS, Raipur; Attended the meeting as a member of Board of Studies, IIHMR University, Institute of Health Management Research, Jaipur; External Expert, Selection Committee meeting, Assistant Professor, Department of Hospital Administration at Indira Gandhi Institute of Medical Sciences, Patna; Subject Expert, Selection committee meeting for the selection of Professor, Associate Professor, Assistant Professor and Medical Officer at Rajiv Gandhi Super Specialty Hospital, Tahirpur, New Delhi; Visited Hyderabad as a part of central team constituted by MoHFW, for setting up new AIIMS in Telangana State; Part of central team constituted by MoHFW, to inspect the suitability of site at Kalyani offered by Government of West Bengal for early operationalisation of new AIIMS; Visited Rewari (Haryana) for site inspection of new AIIMS like institute to be established by MoHFW; Part of central team constituted by MoHFW to inspect the site at Bilaspur (Himachal Pradesh); Part of central team constituted by MoHFW to inspect the site at Gujarat (Ahmedabad, Vadodara and Rajkot); Part of central team constituted by MoHFW to inspect the facilities of Government Siddhartha Medical College, Vijayawada for early operationalisation of AIIMS-Mangalagiri, Andhra Pradesh.

**Professor IB Singh** was external examiner for conduct of practical of MD Hospital Administration Annual Examination (Batch-2015) Session, May 2019, Sher-e-Kashmir Institute of Medical Sciences, J&K.
Professor Aarti Vij received FLO Icon Award (Women Transforming India) for achievements in the field of Healthcare and Wellness in the 24th Annual Session of FICCI Ladies Organization, New Delhi held on 5 April 2018, Shri Ram Nath Kovind, Honourable President of India was the Chief Guest of the programme; Awarded Certificate of Appreciation for outstanding contribution to National Eye Bank, Dr RP Centre for Ophthalmology, AIIMS; Letter of Thanks from Mr NC Jhingta, Secretary to Former PM Late Sh. Atal Bihari Vajpayee; Member Inspection Committee for Registration of Hospital for Transplantation/Retrieval of Organ and Tissue, Delhi Organ and Tissue Transplantation Cell; ORBO Donor Pledge Form was made available online for spreading awareness about Organ donation and to increase the pool of voluntary Organ donors; Android OS based App has been developed for spreading awareness about Organ donation and to increase the pool of voluntary organ donors; A QR Code based ORBO Donor Pledge Form has been developed for easy message dissemination across various social media tools for spreading awareness about Organ donation and to increase the pool of voluntary Organ donors; 27 Nos of awareness camps were organized for public education and awareness generation on Organ and Tissue donation; 7,229 persons pledged for organ and tissue donation on motivation of ORBO.

Dr Nirupam Madaan received Chevening’s Gurukul Fellowship Award in Leadership and Excellence 2018, from the British High Commission, Foreign and Commonwealth Office, UK; Member, Editorial Board, International Journal of Research Foundation of Hospital and Healthcare Administration (IJRFHHA), New Delhi, India; Nominated Member of Health Informatics, MHD-17, from AIIMS, New Delhi; Member, Committee to Revise the CGHS rates for Medical Reimbursements form MOHFW; Member, Committee to draft framework agreement on development cooperation between the Government of South Korea and India.

Dr Anoop Daga was Associate Editor, Journal of Academy of Hospital Administration (JAHA), Noida, India; Member, Editorial Board, International Journal of Research Foundation of Hospital and Healthcare Administration (IJRFHHA), New Delhi, India.

Dr Mahesh R was continuing to Contribute as Principal Member of Medical Equipment and Hospital Planning Division Council (MHDC), Bureau of Indian Standards; Contributed as Expert in the committee for development of Pack Warnings, MoHFW, GOI (Tobacco Control Division); Contributed as Member Sub-Committee for Development of Minimum Standards for Clinical Establishments, GOI, DGHS; Authored a chapter on Blood Transfusion Services under Support and Utility services for the syllabus of Post graduate certificate in Quality Management Accreditation of Health Care Organization (QM-AHO); Contributes as Expert in Standardization of training material on Hospital Preparedness for Health Emergencies for Senior Hospital Administrators.

Dr Angel Rajan Singh was granted fellowship by Harvard T.H. Chan School of Public Health, USA for attending the programme on ‘Health Care Project Management: The Intersection of Strategy, People, and Process’ from 16 to 18 July 2018.

Dr Parmeshwar Kumar was member of Editorial Board, International Journal of Health Scope (Iran); Member of Editorial Board, International Journal of Research Foundation of Hospital and Healthcare Administration (IJRFHHA), New Delhi, India; Member of Editorial Board, Journal of Indian Society of Hospital Waste Management; External expert and temporary advisor with WHO (EMRO) for HRM for Senior Hospital Administrators from 22 nations.

### 9.18. Laboratory Medicine

**Professors and Head**

<table>
<thead>
<tr>
<th>AK Mukhopadhyay (up to 31 May 2018)</th>
<th>M Irshad (from 1 June 2018)</th>
</tr>
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</table>

**Professor**

Sarman Singh (On deputation)

**Assistant Professors**

<table>
<thead>
<tr>
<th>Sudip Kumar Datta</th>
<th>Shyam Prakash</th>
</tr>
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<tbody>
<tr>
<td>Raghavendra L (up to 21 June 2018)</td>
<td>Priyam Batra</td>
</tr>
<tr>
<td>(Contract)</td>
<td>(Contract)</td>
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</tbody>
</table>

**HIGHLIGHTS**

The Department of Laboratory Medicine contributes in the areas of patient care, teaching and research on regular basis. With an annual test-load of more than 85 lakhs tests, this department conducts tests and submits reports on-line and ensures quality results by a regular check via internal and external quality assurance programmes. Introduction of the appointment system at the Central Blood Collection Facility and the use of automated phlebotomy tube-labeler in this facility has
improved the blood collection operation. A total of 4,44,270 phlebotomy were made in 2018-2019 in the extended time-period of 7:30 AM to 11:00 AM. Several members of other departments were also trained in phlebotomy at this centre. Faculty of this department remains engaged in management of routine services and teaching at UG/PG level. Simultaneously, the faculty also bring intramural and extramural research grants. The faculty and staff organized CMEs, scientific events and participated in conferences, both in India and outside. Besides a regular teaching and training programme, this year four candidates were awarded the degree of MD (Laboratory Medicine), two candidates - PhD and three candidates obtained certificate for training. Renowned faculties from other institutions were invited to deliver lectures in the department. The development of new technologies and expansion of test-profile remain the major goals to be achieved in the Department of Laboratory Medicine.

EDUCATION

Training: 164 candidates of Paramedical staff were trained in Laboratory procedures.

CMEs/Workshops/Symposia/Conferences Organized

The department organized the first CME on “Gut Microbiome: Emerging role in health and disease” on 9 January 2019 in AIIMS, New Delhi under the aegis of American Association of Clinical Chemistry (AACC), India Section.

Lectures delivered

Sudip Kumar Datta

1. Discrepancies in electrolyte measurements by direct and indirect ion selective electrodes due to interferences, North Zone ACBICON 2018, 7-8 April 2018, Jodhpur
2. Discrepancies in electrolyte measurements between direct and indirect Ion-Selective Electrodes (ISEs), Delivered Brown Bag Session at 70th Annual Meeting of American Association of Clinical Chemistry (AACC), 29 July-2 August 2019, Chicago, USA
3. Uncertainty of measurement in clinical laboratories, Method Validation and Verification- CLSI perspective, 3-4 October 2018, New Delhi
4. Quiz Master for AFMC-ACBI Quiz, 45th Annual Conference of Clinical Biochemists of India (ACBICON), 24-27 October 2018, Goa
5. Active communication between laboratory professional and clinician: Case Studies, AACC, India Section Symposium, 45th ACBICON, 24-27 October 2018, Goa
6. Panelist in panel discussion: Latest challenges in the clinical laboratory, 26th Annual Conference of Medical Biochemists of India (AMBICON), 2018, 15-17 November 2018, New Delhi

Shyam Prakash

1. Expression of GDF involved in changing of lifestyle diseases a manifestation of metabolic diseases, 7th Annual Conference IABS-2018, 20-22 April 2018, Srinagar
2. Dysregulation of asymmetric dimethyl arginine and molecular expression of tight junction proteins in gastric cancer International mini Symposium on biotechnology in medical research, MIET, 24 April 2018, Meerut
3. Dysregulation of ADMA and molecular expression of tight junction proteins in gastric cancer, Central Zone ACBICON 2018, 21-22 July 2018, Lucknow
5. An emerging molecular expression of GDF-15 and novel macrophages cytokine in NAFLD and metabolic syndrome, 8th Annual Meeting of Indian Academy of Biomedical Sciences and Conference on Translation of Basic Scientific Insights into Affordable Healthcare Products, 25-27 February 2019, Thiruvananthapuram
6. Prokineticins and GDF-15 as interlinked potential biomarkers for NAFLD and metabolic syndrome, National Conference on Recent Developments in Biomedical, Unani and Ayurvedic Translational Research and Darker side of Rampant Use of Lead Based Products IABS and In SLAR, 11-12 March 2019, Aligarh

Oral papers/posters presented

4. Arora P, Datta SK, Sarkar A, Mahajan DS, Discrepancies in Electrolyte Measurements by Direct and Indirect Ion Selective Electrodes due to Interferences by Proteins and Lipids, 70th Annual Meeting of American Association of Clinical Chemistry (AACC), 29 July-2 August 2019, Chicago, USA
15. Sharma A, Chaudhary SP, Raina V, Shukla NK, Sreenivas V, Prakash S, Priyatma, Bharti S, Final results of a phase II/III, randomized, double blind, placebo-controlled study to investigate the efficacy of a high potency multistrain probiotic, on chemotherapy induced diarrhea in cancer patients receiving Fluropirimidines and/or Irinotecan based therapy, ESMO-2018 Congress, 19-23 October 2018, Munich, Germany

RESEARCH
Funded projects
Ongoing

1. Genotypic characterization of Autosomal Dominant Polycystic Kidney Disease (ADPKD) in Indian population: A pilot study, Sudip Kumar Datta, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
2. Molecular expression and interaction between growth differentiation factor-15 and iron trafficking proteins in nonalcoholic fatty liver disease, Shyam Prakash, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
3. Rapid diagnostic evaluation of micro PCR for hepatitis B virus DNA (HBVDNA) and HCV RNA quantitation, Shyam Prakash, BigTec Bangalore, 6 years, 2013-2019, Rs 25 lakhs

AIIMS 2018-19 / 226
4. Clinical validation of two versions of salivary glucose and urea analyzers for developing of rapid non-invasive prototypes, Shyam Prakash, AIIMS-IIT Delhi collaborative research Funds, 2 years, 2019-2021, Rs 10 lakhs

5. Molecular expression and interaction between growth differentiation factor-15 and nitric oxide regulatory genes in diabetes and metabolic syndrome, Shyam Prakash, ICMR, 3 years, 2018-2021, Rs 13.7 lakhs

6. CAP-53194, a novel predictive tumor inhibitor of Polo Like Kinase-1, Shyam Prakash, DST, 3 years, 2019-2022, Rs 14.73 lakhs

**Completed**

1. An inexpensive and rapid diagnostic method for detection of Hepatitis C viral RNA (HCV RNA) by loop mediated isothermal amplification (LAMP), Shyam Prakash, DBT, 5 years, 2013-2018, Rs 32 lakhs

**Departmental projects**

**Ongoing**

1. Abnormality of platelet functions and effect of ammonia levels in Acute liver failure and Acute on chronic liver failure
2. CAP-53194, a novel predictive tumor inhibitor of polo-like kinase-1
3. Cloning expression and purification of the novel recombinant protein from Toxoplasma gondii and its evaluation for the diagnosis of human toxoplasmosis
4. Development of a multiplex Real Time PCR (qPCR) assay for simultaneous detection of hepatitis viruses (A-G) in serum Flowcytometric Assessment of CD4+T and CD8+T cell subset populations in active pulmonary tuberculosis with and without type 2 diabetes mellitus
5. Dysregulation of asymmetric dimethyl arginine and molecular expression of tight junctions (claudins) and programmed cell death ligand-1 in gastric cancer
6. Evaluation of myelin loss and oligodendrocyte pathology in severe traumatic brain injury
8. Molecular interaction of reactive oxygen species in mitochondrial dysfunction and Nrf-2 gene expressions in polycystic ovary syndrome (PCOS)
10. Randomized controlled trial to compare the impact of exercise and nutritional interventions on changes in skeletal muscle mass and function in obese patients with sarcopenia
11. Study of mild traumatic brain injury induced novel circulating brain protein SNTF as a rapid diagnostic and prognostic biomarker for brain dysfunction
12. Translational application of novel clinically accessible biological predictors to improved identification of mild and moderate Traumatic Brain Injury (TBI) induced neuro psychological impairment

**Completed**

1. A cross-sectional pathfinder study to assess the serum vitamin D level in patients undergoing non-surgical endodontic therapy and observe its potential association with periapical healing
2. Biomarker(s) for assessment of villous abnormalities in patients with celiac disease and other enteropathies
3. Effectiveness of intravenous iron sucrose in the treatment of moderate anemia among pregnant women, attending a sub district hospital in Haryana, North India
4. N22 Region of Torque teno virus: Cloning, expression and use of translational peptides in immunological assays and proteomic analysis
5. Study of platelet dysfunction in trauma patients requiring platelet transfusion
6. To assess the effect of renal transplantation on organochlorine pesticides levels in chronic kidney disease (stage 5D) patients
7. To study the role of lead exposure on Calcium metabolism and its relation with VDR polymorphism in battery workers in Delhi-NCR region

**Collaborative projects**

**Ongoing**

1. Application of Integrated Care Tool-BRIEF (ICT-BRIEF) in detection of Intrinsic Capacity and Geriatric Syndromes of older Indians, Geriatric Medicine
2. Comparative evaluation of endocrine disrupter chemicals (organochlorine, organophosphate, Biphenyl A, Phthalate) in polycystic ovary syndrome, type 2 diabetes mellitus and healthy reproductive age Indian women, and their correlation with dietary habits (vegetarian Vs non-vegetarian) and genetic variability, Multi-centric project: SKIMS, Srinagar; PGI, Chandigarh; MIRRH, Mumbai; GMC, Trivandrum; IPGMER, Kolkata; NEIGRIHMS, Shillong; AIIMS, Raipur; Swami Medical College, Hyderabad; Maternal Health and Research Trust, Hyderabad

3. Effect of low dose Rasburicase in management of tumor lysis syndrome, Haematology

4. Evaluation of HE4 level in epithelial ovarian cancer for diagnosis and and monitoring of therapy, Laboratory Oncology

5. Evaluation of prevalence, regional phenotypic variation, co morbidities, risk factors and the variations in response to different therapeutic modalities among Indian women with polycystic ovary syndrome (PCOS): A multicenter study across India, SKIMS, Srinagar

6. Prevalence of vitamin B12 deficiency among Indian Women with PCOS and the impact of Vit. B12 suplementation on the efficacy of conventional drugs in the management of women with PCOS, SKIMS, Srinagar

7. Psychosocial stress and lipid profile as predictors of adverse pregnancy outcomes, Obstetrics and Gynaecology

8. Role of spot urine sodium in furosemide stress test in volume overloaded critically ill patients with acute kidney injury, Anaesthesia and Critical Care

9. Single arm open label trial to assess effectiveness of intravenous Ferric Carboxy Maltose (FCM) in improving haemoglobin level among pregnant women with moderate to severe anaemia attending a Sub District Hospital, district Faridabad, Haryana, Community Medicine

10. Urine albumin creatinine ratio as a marker for predicting acute kidney injury and patient outcome in critically ill sepsis patients—A prospective observational study, Anaesthesia and Critical Care

**Completed**

1. Macronutrient composition of very preterm (<32 weeks) breast milk—A prospective observational study, Paediatrics

**PUBLICATIONS**

Journals: 6   Abstracts: 6

**PATIENT CARE**

Centralised Blood Collection Facility

I. **Total Phlebotomy:** 4,44,370

II. **Distribution of Blood Samples:**

   A) Laboratory Medicine
   
   Clinical Biochemistry Division: 2,20,000
   Haematology Division: 2,01,500
   Clinical Microbiology Division: 10,500

   B) Outside of Laboratory Medicine: 12,370
Emergency Laboratory Services (Round the clock)

Haematology Division

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<tr>
<th>Test</th>
<th>Number</th>
<th>Test Number</th>
<th>Number</th>
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<tbody>
<tr>
<td>Hb</td>
<td>1,00,241</td>
<td>Blood C/S and CSF C/S</td>
<td>10,932</td>
</tr>
<tr>
<td>TLC</td>
<td>1,00,241</td>
<td>Slide Stain</td>
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<td>PLT</td>
<td>1,00,241</td>
<td>MCV</td>
<td>1,00,241</td>
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<tr>
<td>PT</td>
<td>1,03,297</td>
<td>MCH</td>
<td>1,00,241</td>
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<td>CSF Cells</td>
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<td><strong>Total</strong></td>
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Clinical Biochemistry Division

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<tr>
<td>B. Glucose</td>
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<td>Cl⁻</td>
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<tr>
<td>B. Urea</td>
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<td>Ca²⁺</td>
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<td>S. Creatinine</td>
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<td>SGOT</td>
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<td>S. Bilirubin-T</td>
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<td>SGPT</td>
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<td>Amylase</td>
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<td>ABG</td>
<td>29,200</td>
<td>CSF-Glu.</td>
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<tr>
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<td>CSF-Prot.</td>
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<td>K⁺</td>
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<td><strong>Total</strong></td>
<td><strong>15,81,931</strong></td>
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Grand Total = 25,81,255

Haematology routine services

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<th>Test</th>
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<tr>
<td>1.</td>
<td>Hb</td>
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<td>89,318</td>
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<tr>
<td>2.</td>
<td>TLC</td>
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<td>3.</td>
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<td>5.</td>
<td>ESR</td>
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<td>6.</td>
<td>P/s Morphology</td>
<td>25,485</td>
<td>33,490</td>
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<td>7.</td>
<td>PLT</td>
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<td>8.</td>
<td>Retic Count</td>
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<td>9.</td>
<td>Abs Eos. Count</td>
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<td>89,318</td>
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<td>ANC</td>
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<td>11.</td>
<td>MP</td>
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<td>12.</td>
<td>MCV</td>
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<td>18.</td>
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<td>19.</td>
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<td><strong>Total</strong></td>
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Grand Total = 29,44,312
Clinical Biochemistry Routine Services

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<th>Urine and Fluid</th>
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<tr>
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<td>Urea</td>
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<tr>
<td>Creatinine</td>
<td>3,22,965</td>
<td>18,753</td>
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<tr>
<td>Calcium</td>
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<td></td>
</tr>
<tr>
<td>Phosphate</td>
<td>3,20,346</td>
<td>7,744</td>
<td></td>
</tr>
<tr>
<td>Uric Acid</td>
<td>3,20,733</td>
<td>6,100</td>
<td></td>
</tr>
<tr>
<td>Na</td>
<td>3,18,819</td>
<td>6,049</td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>3,18,819</td>
<td>6,049</td>
<td></td>
</tr>
<tr>
<td>SGOT</td>
<td>3,15,941</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>SGPT</td>
<td>3,15,941</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Alk. Phosphatase</td>
<td>3,16,629</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Bilirubin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Total</td>
<td>3,15,490</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii) Conj.</td>
<td>2,86,621</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T. Protein</td>
<td>3,15,323</td>
<td>22,895</td>
<td></td>
</tr>
<tr>
<td>Albumin</td>
<td>3,15,323</td>
<td>2,564</td>
<td></td>
</tr>
<tr>
<td>Cholesterol</td>
<td>13,856</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Amylase</td>
<td>4,598</td>
<td>2,531</td>
<td></td>
</tr>
<tr>
<td>ACP</td>
<td>–</td>
<td>4,253</td>
<td></td>
</tr>
<tr>
<td>24h Albumin</td>
<td>–</td>
<td>18,980</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>48,19,160</strong></td>
<td><strong>1,07,716</strong></td>
<td></td>
</tr>
</tbody>
</table>
### Clinical Biochemistry (Investigations on request or for research)

<table>
<thead>
<tr>
<th>Test</th>
<th>Number</th>
<th>Test</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBsAg/HBV-DNA</td>
<td>450</td>
<td>TTV-DNA</td>
<td>200</td>
</tr>
<tr>
<td>IgM anti HBe</td>
<td>100</td>
<td>CK</td>
<td>100</td>
</tr>
<tr>
<td>Anti HCV</td>
<td>300</td>
<td>LDH</td>
<td>50</td>
</tr>
<tr>
<td>IgM Anti HEV</td>
<td>100</td>
<td>TG</td>
<td>400</td>
</tr>
<tr>
<td>IgM Anti HAV</td>
<td>100</td>
<td>LDLc</td>
<td>400</td>
</tr>
<tr>
<td>HCV-RNA</td>
<td>300</td>
<td>HDLc</td>
<td>400</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,900</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>49,29,776</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Clinical Microbiology Services

#### Routine investigations

1. Urine

<table>
<thead>
<tr>
<th>Name of the Test</th>
<th>OPD</th>
<th>Ward</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical board</td>
<td>0</td>
<td>1,531</td>
<td>1,531</td>
</tr>
<tr>
<td>Routine</td>
<td>41,915</td>
<td>40,987</td>
<td>82,902</td>
</tr>
<tr>
<td>Microscopic</td>
<td>41,915</td>
<td>40,987</td>
<td>82,902</td>
</tr>
<tr>
<td>pH</td>
<td>41,915</td>
<td>40,987</td>
<td>82,902</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>41,915</td>
<td>40,987</td>
<td>82,902</td>
</tr>
<tr>
<td>Acetone</td>
<td>41,915</td>
<td>40,987</td>
<td>82,902</td>
</tr>
<tr>
<td>Bile pigment/salt</td>
<td>41,915</td>
<td>40,987</td>
<td>82,902</td>
</tr>
<tr>
<td>Test</td>
<td>OPD</td>
<td>Ward</td>
<td>Total</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----</td>
<td>------</td>
<td>---------</td>
</tr>
<tr>
<td>Urobilinogen</td>
<td>41,915</td>
<td>40,987</td>
<td>82,902</td>
</tr>
<tr>
<td>Bence Jones Protein</td>
<td>52</td>
<td>64</td>
<td>116</td>
</tr>
<tr>
<td>Chyluria</td>
<td>61</td>
<td>53</td>
<td>114</td>
</tr>
<tr>
<td>Urine Cultures</td>
<td>21,438</td>
<td>0</td>
<td>21,438</td>
</tr>
<tr>
<td>Strain identifications tests</td>
<td>16,108</td>
<td>0</td>
<td>16,108</td>
</tr>
<tr>
<td>Antibiotic Sensitivity</td>
<td>31,701</td>
<td>0</td>
<td>31,701</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td>3,62,765</td>
<td>2,88,557</td>
<td>6,51,322</td>
</tr>
</tbody>
</table>

### 2. Stool

<table>
<thead>
<tr>
<th>Name of the Test</th>
<th>OPD</th>
<th>Ward</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet mount saline</td>
<td>8,713</td>
<td>3,963</td>
<td>12,676</td>
</tr>
<tr>
<td>Wet Iodine stain</td>
<td>8,713</td>
<td>3,963</td>
<td>12,676</td>
</tr>
<tr>
<td>Occult blood in stool</td>
<td>2,953</td>
<td>2,905</td>
<td>5,858</td>
</tr>
<tr>
<td>Fat globules</td>
<td>127</td>
<td>71</td>
<td>198</td>
</tr>
<tr>
<td>Special stains for stool Z-N stain, Modified Z-N Stain, Trichrome and chromotote</td>
<td>436</td>
<td>99</td>
<td>535</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td>20,942</td>
<td>11,001</td>
<td>31,943</td>
</tr>
</tbody>
</table>

### 3. Semen analysis

<table>
<thead>
<tr>
<th>Name of the Test</th>
<th>OPD</th>
<th>Ward</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine</td>
<td>5,234</td>
<td>-</td>
<td>5,234</td>
</tr>
<tr>
<td>No. of Reactions</td>
<td>5,234</td>
<td>-</td>
<td>5,234</td>
</tr>
<tr>
<td>Motility</td>
<td>5,234</td>
<td>-</td>
<td>5,234</td>
</tr>
<tr>
<td>Count</td>
<td>3,633</td>
<td>-</td>
<td>3,633</td>
</tr>
<tr>
<td>Fructose</td>
<td>2,064</td>
<td>-</td>
<td>2,064</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>21,399</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4. Sputum Analysis

<table>
<thead>
<tr>
<th>Name of the Tests</th>
<th>OPD</th>
<th>Ward</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of samples received</td>
<td>1,719</td>
<td>54</td>
<td>1,773</td>
</tr>
<tr>
<td>ZN staining (Microscopy)</td>
<td>3,068</td>
<td>84</td>
<td>3,152</td>
</tr>
<tr>
<td>MTB Culture</td>
<td>352</td>
<td>0</td>
<td>352</td>
</tr>
<tr>
<td><strong>Sub total</strong></td>
<td>5,139</td>
<td>138</td>
<td>5,277</td>
</tr>
</tbody>
</table>

### 5. Urine AFB Analysis

<table>
<thead>
<tr>
<th>Name of the Test</th>
<th>OPD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of samples received</td>
<td>1,304</td>
<td>1,304</td>
</tr>
<tr>
<td>ZN staining (Microscopy)</td>
<td>1,994</td>
<td>1,994</td>
</tr>
<tr>
<td><strong>Sub total</strong></td>
<td>3,298</td>
<td>3,298</td>
</tr>
</tbody>
</table>

### Specialized Investigations

#### Immuno-Serological and Molecular Diagnosis Tests

<table>
<thead>
<tr>
<th>Test (these remained suspended for most of the year)</th>
<th>Total</th>
<th>Test (these remained suspended for most of the year)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxoplasma gondii IgG</td>
<td>1,657</td>
<td>Anti HBs</td>
<td>640</td>
</tr>
<tr>
<td>Toxoplasma gondii IgM</td>
<td>1,777</td>
<td>Anti HCV antibody</td>
<td>45,745</td>
</tr>
<tr>
<td>Rubella IgG</td>
<td>1,841</td>
<td>HEV IgM</td>
<td>216</td>
</tr>
<tr>
<td>Rubella IgM</td>
<td>1,947</td>
<td>HIV</td>
<td>39,906</td>
</tr>
<tr>
<td>Cytomegalovirus IgG</td>
<td>1,852</td>
<td>HBV DNA</td>
<td>209</td>
</tr>
<tr>
<td>Test</td>
<td>Count</td>
<td>Test</td>
<td>Count</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-------</td>
<td>-------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Cytomegalovirus IgM</td>
<td>1,865</td>
<td>HCV RNA</td>
<td>116</td>
</tr>
<tr>
<td>Herpes Simplex virus IgG</td>
<td>495</td>
<td>CMV (RT PCR)</td>
<td>1,095</td>
</tr>
<tr>
<td>Herpes Simplex virus 2 IgG</td>
<td>487</td>
<td>Lab Strain Maintenance in Hamster</td>
<td>792</td>
</tr>
<tr>
<td>Herpes Simplex virus (1+2) IgM</td>
<td>28</td>
<td>Total number of samples received</td>
<td>652</td>
</tr>
<tr>
<td>HAV IgM</td>
<td>1,777</td>
<td>ZN staining:</td>
<td>1,004</td>
</tr>
<tr>
<td>HBsAg</td>
<td>46,365</td>
<td>LJ medium inoculated</td>
<td>749</td>
</tr>
<tr>
<td>HBc IgM</td>
<td>97</td>
<td>GeneXpert MTB/RIF</td>
<td>332</td>
</tr>
<tr>
<td>HBeAg</td>
<td>2,079</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>1,53,723</strong></td>
<td></td>
</tr>
</tbody>
</table>

Grand Total: 8,66,962

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor M Irshad, as a Head of the Department, made several changes in the working system of this department to further improve the patient-care and teaching pattern at UG/PG level. On academic front, he was listed among renowned icons (3%) of the world by Marquis, USA for his notable contribution in front-line research. He was selected as an active
Dr Sudip Kumar Datta was awarded International Travel Grant for 2018 by American Association of Clinical Chemistry (AACC) at Chicago during AACC 2018 Annual Meeting. He is also Corresponding Member from India for International Federation of Clinical Chemistry (IFCC) Task Force on Ethics (2018-till date) and Secretary, American Association of Clinical Chemistry (AACC)- India Section (2018-till date).

Dr Shyam Prakash organized 16th Annual Meeting of Society for Free Radical Research in India (SFRRI-2018) and International Conference on Translational Research in Free Radicals, Micronutrient Antioxidants and Functional Foods at AIIMS, New Delhi. He is a member of Project Review Committee of the SERC division of DST and Project Review Committee of the Nutrition Division of ICMR. He is also reviewer of research paper of the Indian J of Clinical Biochemistry and Clinical Nutrition ESPEN.

HIGHLIGHTS

The Department of Medicine is a vibrant department providing holistic services including patient care, medical education and research. Besides the routine services, it has a strong presence in the fields of infectious diseases, metabolic disorders, chest medicine and sleep disorders and a large number of medical problems requiring multi-disciplinary care. The patient-care activities at the infectious diseases, Travel Health and Adult Immunization Clinic recorded a substantial jump with more than 5-fold increase in the number of patients. This year the department initiated a series of symposia to enhance the clinical skills of undergraduate and postgraduate students, which was very well received. We hosted world-renowned infectious diseases specialists like Dr David Denning and Dr Ricard Ferrer, who interacted with our students. The department received re-designation as a WHO Collaborating Centre for Training and Research in Tuberculosis for the next four years.

EDUCATION

The department runs comprehensive undergraduate and postgraduate teaching programmes which includes integrated lectures, seminars, journal club and bedside clinical case discussions. Currently 58 MD students, 37 DM-Infectious Diseases (17 Junior Residents and 20 Senior Residents) and 16 Senior Residents are being trained in the department. It is striving to improve the clinical training of undergraduates and postgraduates with better alignment between the expected outcomes, learning opportunities and assessments. There is increasing focus on regular formative assessments and feedback to students.

CMEs/Workshops/Symposia/National and International Conferences

(Organized by the department/departmental faculty)

1. Symposium on “Clinical Skills in Cardiovascular System” on 8 April 2018 at AIIMS, New Delhi
2. Symposium on “Neglected Infectious Diseases” on 22 April 2018 at AIIMS, New Delhi
3. Public lecture on “Dengue Fever” on occasion of “National Dengue Day” on 16 May 2018 at AIIMS, New Delhi
4. Symposium on “Infectious Diseases” on 23 May 2018 at AIIMS, New Delhi
5. Update on “NIPAH Virus” on 24 May 2018 at AIIMS, New Delhi
6. Symposium on medical procedures from a medicine resident on 5-6 June 2018 at AIIMS, New Delhi
7. Symposium on “Evidence Based Medicine” on 6 October 2018 at AIIMS, New Delhi
8. Symposium on “How to write a research paper” on 13 October 2018 at AIIMS, New Delhi
9. Symposium on “Research Methodology Part II” on 3 November 2018 at AIIMS, New Delhi
10. Guest lecture on “Recent advances in fungal infections and their management: How many lives can be saved?” on 5 December 2018 at AIIMS

Lectures delivered

Ashutosh Biswas

1. Pitfalls in the management of severe dengue in adults, 1st National Conference on Dengue, 21-22 April 2018, Mysuru
3. Management and updated guidelines in HIV/AIDS, Delhi, API Chapter, 12 August 2018, New Delhi
6. Clinical aspects of human leptospirosis, Diagnostic approach, D/D, Case management, complications, referral protocol, tertiary care management, etc., Workshop on Leptospirosis, 27 March 2019, Kerala

Sanjeev Sinha


Naval K Vikram

4. Panelist of high consumption of fat, sugar and salt, Rajasthan Conclave-6, 20-22 October 2018, Jodhpur
7. PRF Publication Workshop, 74th Annual Conference of the Association of Physicians of India (APICON), 7-10 February 2019, Kochi
8. Consensus statement for metabolic surgery by Diabetes India, 9th World Congress of Diabetes India—Diabetes India 2019, 28 February-3 March 2019, Jaipur

Manish Soneja

1. Influenza: Management Guidelines, Expert group meeting, 25 February 2019, New Delhi

Neeraj Nischal

2. Hospital antibiotic policy: Applying guidelines to general practice, 3rd Professional Development Programme Leading Healthcare Quality and Safety Improvement: Essentials for Managers, 15 March 2019, New Delhi
Arvind Kumar
1. Utility of bedside ultrasonography in bedside clinical medicine, BAPICON 2019, 2 March 2019, Bettiah
2. Workshop on resuscitation, BAPICON 2019, 1-3 March 2019, Bettiah

Upendra Baitha
1. Workshop on resuscitation, BAPICON 2019, 1-3 March 2019, Bettiah

Oral papers/posters presented
2. Sagnik B, Soneja M, Kumar A, Roy A, Biswas A, Wig N, Role of N Terminal Pro BNP and Cardiac Troponin-I as Biomarkers to Predict Outcome in Patients with Sepsis, CIDSCON, 16 August 2018, Vellore

RESEARCH
Funded projects
Ongoing
1. Initiating antimicrobial stewardship activities in hospitals in India, Rita Sood, ICMR, 1 year, 2018-2019, Rs 10 lakhs
2. Functional analysis of human CD8 T cell response induced during dengue disease, Naveet Wig, DBT, 3 years, 2019-2022, Rs 25 lakhs
3. Seroprevalence of dengue infection, Ashutosh Biswas, NVBDCP, MoH&FW, 3 years, 2016-2019, Rs 30 lakhs
4. To study the effect of mobile phones on well-being, sleep and cognitive function (Multicentric project having 3 sites from all over country, AIIMS, New Delhi is LRI), Sanjeev Sinha, DST, 4 years, 2015-2019
5. Prevention of relapse in category I treated pulmonary tuberculosis patients with and without vitamin D3 supplementation: A randomized double-blind control clinical trial, Professor Sanjeev Sinha, ICMR, 1 year, 2016
6. Asha improving health and nutrition of Indian women with AIDS and their children, Sanjeev Sinha, NIH, USA, 1 year, 2013
7. Consumption pattern of food and food products/items high in fat, salt and sugar among selected cities/towns and rural population of India, Naval K Vikram, ICMR, 15 months, May 2018 onwards, Rs 62.59 lakhs
8. Mechanism of rapid propagation of dengue virus during infection, Naval K Vikram, DBT, 3 years, March 2018 onwards, Rs 20 lakhs
9. Effect of electromagnetic radiations due to mobile phone use on sleep and neurocognitive functions: A molecular approach, Manish Soneja, DST, 4 years, 2015-2019, Rs 65 lakhs
10. Role of biomarkers and its utility in algorithm for early diagnosis of invasive fungal infections, Manish Soneja, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
11. A study to evaluate the safety and efficacy of Saroglitazar 4 mg versus placebo in the treatment of HIV associated lipodystrophy, Neeraj Nischal, Zydu, 2016-2019, Rs 30 lakhs
12. To evaluate the role of Kit-based Loop Mediated Isothermal Amplification (TB-LAMP) in the diagnosis of Extra-pulmonary Tuberculosis, Neeraj Nischal, AIIMS, 2018-2019, Rs 3 lakhs
13. To study current practice in the management of bacterial urinary tract infection in patients at AIIMS, New Delhi with focus on current antibiotic usage and clinical outcomes, Arvind Kumar, AIIMS, 2 years, 2017-2019, Rs 1 lakh
14. Paradoxical reaction in lymph node tuberculosis among non-HIV subjects—Clinical implications and outcome, Pankaj Jorwal, RNTCP, 1 year, 2019-2020, Rs 1.9 lakhs
15. A study comparing nebulised amphotericin B with oral itraconazole for treatment of chronic cavitary pulmonary aspergillosis patients, Animesh Ray, AIIMS, 1 year, 2019-2020, Rs 5 lakhs
16. A study on the effects of simulation on resident doctors and nurse’s knowledge and skills about basic and advanced life support, Upendra Baitha, AIIMS, 2 years, 2018-2020, Rs 5 lakhs

AIIMS 2018-19 / 236
**Completed**

1. A prospective, multi-center, randomized, double-blind, parallel-group, active-controlled, phase III study to compare the efficacy, safety and immunogenicity of premixed human insulin biphasic (30% human insulin soluble injection and 70% human insulin isophane suspension) injectable suspension of MJ Biopharm Private Limited with Huminsulin® 30/70 in treatment of patients diagnosed with type 2 diabetes mellitus, Naval K Vikram, JSS Medical Research India Pvt Ltd, 1 year, 2017-2018, Rs 4.17 lakhs

2. A phase 3, multicenter, randomized, double blind, placebo controlled, parallel study to evaluate the efficacy and safety of lorcaserin hydrochloride in the treatment of obesity, Naval K Vikram, Dr Reddys Laboratories, 1 year, June 2017-October 2018, Rs 9 lakhs

3. The pattern of invasive fungal infections in high risk patients in medical ICU at AIIMS, New Delhi, Pankaj Jorwal, AIIMS, 2 years, 2016-2018, Rs 5 lakhs

**Departmental projects**

**Ongoing**

1. Active surveillance and targeted intervention in an ICU and HIC practices and its impact on ventilator associated pneumonia

2. Anti tubercular drug induced liver injury in patients with fatty liver

3. Anti-tubercular therapy induced liver injury in patients with type 2 diabetes mellitus: Prospective cohort study

4. A prospective observational study on clinical profile and outcome of patients to standard care of chronic pulmonary aspergillosis attending tertiary hospital

5. Assessment of body composition and metabolic profile of young health care providers

6. Association of lean mass, muscle strength and physical performance with diabetes and metabolic parameters

7. A study to compare the clinico-radiological and pulmonary function test profile of post tubercular COPD patients and smoking related COPD patients

8. Characteristics and clinical outcomes of patients with spinal tuberculosis presenting to a tertiary care hospital in India

9. Clinical and etiological profile of patients with eosinophilia

10. Clinical and serological characterization of autoimmune hemolytic anemia

11. Clinical and socio-demographic correlates of the patients presenting with medially unexplained physical symptoms in Medicine Outpatient Clinic

12. Clinical etiological and laboratory profile of patients with pericardial effusion

13. Clinical profile and outcome of renal tuberculosis and utility of gene expert in its diagnosis

14. Clinical radiological and functional correlation in treated pulmonary tuberculosis sequelae patients

15. Clinical spectrum, laboratory profile and outcome of patients with acute febrile encephalopathy: A prospective study from a tertiary care hospital in North India

16. Clinical, etiological and laboratory profile of patients with pericardial effusion

17. Clinico-microbiological profile and outcome of patients with urosepsis—A prospective study in a tertiary care hospital in North India

18. Comparison between obese and non-obese individuals with non-alcoholic fatty liver disease

19. Comparison of CPR quality pre and post training through the usage of high quality CPR markers

20. Cryptococcal Antigenemia in people living with HIV and AIDS

21. Diagnosis of patients with oligoarthritis with special reference to Brucellosis and Lyme disease

22. Dyslipidemia—A cardiovascular risk factor in HIV-AIDS patients

23. Effect of implementation of protocol based nutrition therapy on outcomes in Medical ICU

24. Effectiveness of Isoniazid Preventive Therapy for tuberculosis among retro positive individuals

25. Evaluating adherence to and outcome of evidence based practices in the care of the mechanically ventilated patient: A quasi-interventional study

26. Evaluation of TB LAMP assay in diagnosis of tubercular meningitis

27. Functional analysis of human CD8 T cell response induced during dengue disease

28. Impact of active continuous surveillance in an Intensive Care Unit on Ventilator Associated Pneumonia and Association of Exogenous flora with Ventilator Associated Pneumonia
29. Impact of surveillance and preventive interventions on device associated infections in Medical Intensive Care Unit (ICU)
30. Incidence of respiratory syncytial virus infection in adults in the first year following hematopoetic stem cell transplant
31. Invasive fungal infections and role of biomarkers and molecular approaches in early diagnosis
32. Outcome implications of protocol-based management in sepsis
33. Outcome implications of standardized checklist and protocol on incidence of adverse events during intra-hospital transport of critically ill patients
34. Outcome of implementation of guidelines on artificial airway maintenance and tube care in mechanically ventilated patients in Medicine Department at AIIMS, New Delhi
35. Outcome predictors of secondary hemophagocytic lymphohistiocytosis
36. Paradoxical reactions in HIV negative EPTB patients—incidence, outcome and predictive factors
37. Prevalence of immunologic failure among adult HIV/AIDS patients on Anti-Retroviral Therapy (ART)
38. Psychiatric morbidities in TB-HIV co-infection
39. Quality improvement of invasive procedures in Medicine Wards
40. Role of Impulse Oscillometry (IOS) in the evaluation and follow-up of newly diagnosed cases of Interstitial Lung Disease
41. Role of N-Terminal pro-BNP and Cardiac Troponin-I as biomarkers to predict outcome in patients with sepsis
42. Role of Serum CA-125 Level in diagnosis and monitoring of treatment response in pulmonary and extra-pulmonary tuberculosis
43. Role of serum procalcitonin levels in the management of sepsis
44. Secondary Hemophagocytic Lymphohistiocytosis (HLH) in patients with sepsis
45. Sonographic comparison of subclavian vein and inferior vena cava collapsibility for assessment of volume status of hypotensive patients
46. Spectrum of systemic fungal infections in Medical Wards at AIIMS
47. Sterile pyuria in patients admitted to medical wards: Incidence of Chlamydia trachomatis, Urea plasma urealyticum, Mycoplasma hominis and Mycoplasma genitalium
48. Study of clinico-epidemiological profile of acute undifferentiated febrile illness patients at a tertiary care centre
49. Study of prevalence of medically unexplained physical symptoms (MUPS), in Medicine OPD, associated disability and caregiver burden
50. Study of the effect of implementation of ‘Critical Pathways’ on the quality of management of community acquired pneumonia
51. Synthesis, quality control and biodistribution studies of 99mTechnetium (99mTc) labelled antibiotics for infection imaging
52. The pharmacokinetics of nebulized and intravenous colistin in mechanically ventilated patients in medicine ICU
53. Thromboelastographic abnormalities and correlation with bleeding manifestations in dengue fever
54. To evaluate the risk factors associated with HIV TB co-infection
55. To evaluate the role of ‘Kit-based commercial Loop-Mediated Isothermal Amplification (TB-LAMP)’ assay in the diagnosis of Tubercular Lymphadenitis

Completed

1. Adherence to lifestyle modification advices in non alcoholic fatty liver disease
2. Burden of dengue among adult population in DELHI/NCR AIIMS, New Delhi
3. Cardiac manifestations in hospitalized patients with dengue fever
4. Effect of implementation of protocol-based nutrition therapy on outcomes in Medical ICU
5. Epidemiology of Invasive fungal infections in ICU at AIIMS, New Delhi
6. Erectile dysfunction in nonalcoholic fatty liver disease
7. Hepatic left lobe volume as a sensitive index of metabolic improvement in patients with Nonalcoholic Fatty Liver Disease (NAFLD)
8. Nutritional and lifestyle risk factors associated with NAFLD (Non Alcoholic Fatty Liver Disease)
9. Outcome implications of ADA/AACE guidelines based insulin protocol in the management of hyperglycemia in hospitalised patients at AIIMS
10. To evaluate the incidence and risk factors of mortality in dengue infection
11. To study the current practice of management of bacterial UTI

**Collaborative projects**

**Ongoing**

1. A 26 week randomised open label parallel group comparison of SAR 341402 mix 70/30 to NovoMix® 30 in adult patients with diabetes mellitus using pre-mix insulin analogs, Endocrinology and Metabolism
2. A randomised 24-week controlled open label parallel arm multicenter study comparing the efficacy and safety of the insulin glargine/lixisenatide fixed ratio combination to insulin glargine in T2DM patients, inadequately controlled on basal insulin with or without metformin, Endocrinology and Metabolism
3. A randomised double blind placebo control parallel group multicentered study to demonstrate the effects of Sotagliflozin on cardiovascular risk and renal events in patients with T2DM cardiovascular risk factor and moderately impaired renal function, Endocrinology and Metabolism
4. A randomized double blind placebo controlled parallel group multicentered study to evaluate the effect of EFPEGLENATIDE on cardiovascular outcomes in T2DM patients at high cardio vascular risk, Endocrinology and Metabolism
5. A randomized placebo controlled prospective phase II clinical study of an Ayurvedic Coded Drug ‘AYUSH-D’ on Glycaemic control in Pre-Diabetic Subjects, Endocrinology and Metabolism
6. A randomized, double-blind, placebo- and active-controlled, multicenter, phase 3 study to assess the efficacy and safety of filgotinib administered for 52 weeks in combination with methotrexate to subjects with moderately to severely active rheumatoid arthritis who have an inadequate response to methotrexate, Rheumatology
7. A randomized, double-blind, placebo and active-controlled, multicenter, phase 3 study to assess the efficacy and safety of filgotinib administered for 52 weeks alone and in combination with Methotrexate (MTX) to subjects with moderately to severely active rheumatoid arthritis who are Naive to MTX Therapy, Rheumatology
8. Effect and safety of semaglutide 2.4 mg once-weekly in subjects with overweight or obesity and type 2 diabetes, Endocrinology and Metabolism
9. Efficacy and safety of oral semaglutide versus placebo in subjects with type 2 diabetes mellitus treated with insulin, A 52-week, randomised, placebo-controlled trial, double-blinded study, Endocrinology
10. Identifying the role of exogenous ATP in joint inflammation, Rheumatology
11. Muskuloskeletal symptoms and their impact in adolescent school children, Rheumatology

**PUBLICATIONS**

**Journals:** 67  
**Abstracts:** 3  
**Chapters in books:** 1

**PATIENT CARE**

Medicine OPD is a direct non-referral clinic running 6 days a week. The department runs speciality clinics including Sleep Disorders Clinic (Monday 2 PM), Infectious Diseases, Travel Health and Adult Immunization Clinic (Monday 2 PM), Chest Clinic (Friday 2 PM) and Obesity and Metabolic Disorders Clinic (Wednesday 2 PM). The department also runs ART centre under national programmes. The department has a Pulmonary Function Tests Lab (MOPD room no 34) wherein, there is no waiting period and the investigations are done and reports given on the same day. Bronchoscopy Lab is situated in DII ward and equipped with state-of-the-art Endobronchial Ultrasound System. Sleep Lab located in CII Ward is equipped with polysomnography machines, ambulatory Blood Pressure Monitoring System, and equipment for non-invasive assessment of endothelial dysfunction. The Department of Medicine provides diagnostic facilities for tuberculosis to patients coming to the AIIMS hospital as well as those referred from 5 zones of Delhi (Chest Clinics) under the RNTCP (Revised National Tuberculosis Control Programme). The department has state-of-art biosafety level 3 (BSL-3) lab.

Following is the data of patients in various clinics and laboratory investigations run by the department

**Medical OPD**

Total cases 1,65,322

**Infectious Diseases, Travel Health and Adult Immunization Clinic (Monday 2 PM)**

Total cases 3,523

**Sleep Clinic**

Total cases 786

**Chest Clinic**

Total cases 4,649
Obesity and Metabolic Disorders Clinic

Total cases 1,283

Antiretroviral (ART) Centre

Pre-ART 995  ART 791

Laboratories

Sleep

Sleep studies 278  Endothelial dysfunction studies 8
Ambulatory monitoring of blood pressure 20

PFT

Pulmonary function test 6,822  6 Minute walk test 269

Number of Bronchoscopy done

Fibre-optic bronchoscopy 381  EBUS 83

ADA/ACE Lab

ACE tests 85

Intermediate Reference Laboratory (IRL) services:

<table>
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<th>Test</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Liquid culture</td>
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<td>Liquid DST (1st line)</td>
<td>224</td>
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<tr>
<td>Line Probe Assay (1st line LPA)</td>
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<td>Solid drug susceptibility test</td>
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<tr>
<td>Liquid DST (2nd line)</td>
<td>716</td>
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<tr>
<td>Line Probe Assay (2nd LPA)</td>
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</table>

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Naveet Wig was Nodal Officer, WHO Collaborating Centre for Training and Research in Tuberculosis; Chairman, National Technical Working Group on TB – comorbidities; Chairman Expert Committee, DHR – ICMR for funded workshop on clinical training and translational research; Co-chair, Standing Treatment Guidelines (Medicine), ICMR; Member, Governing Body of All India Institute of Ayurveda; Member of Scientific Body of Indian Pharmacopoeia Commission; Member of ICMR Technical Resource Group on HIV/AIDS and member of HIV/AIDS Project Review Committee (PRC) of ICMR.

Professor Ashutosh Biswas was nominated as expert member with Central Team Deputed for reviewing Nipah outbreak in Kozhikode, Kerala by Ministry of Health and Family Welfare and DGHS, Emergency Medical Relief, 21-28 May 2018; Expert member for High Level Central Team to visit Ahmedabad, Gujarat to review public health measures (Including containment and surveillance) by Ministry of Health and Family Welfare, Directorate General of Health Services (Emergency Medical Relief) and the state health department for Zika Virus Disease outbreak on 20 October 2018 at Ahmedabad, Gujarat; Expert member for High Level Central Team to visit Jaipur, Rajasthan to review public health measures (Including containment and surveillance) by Government of India, Ministry of Health and Family Welfare, the Directorate General of Health Services (Emergency Medical Relief) and the state health department for Zika Virus outbreak, 5-10 October 2018 at Jaipur, Rajasthan; Expert to Assessment Board for promotion of ICMR scientists-B&F under Flexible Complementing Scheme; Expert member in central team to frame new guidelines for clinical management for Nipah virus disease by Central Team, MoH&FW; External expert, Standing Selection Committee for post of Assistant and Associate Professor, Department of General Medicine at IGIMS, Patna; External expert, Standing Selection Committee for the post of Assistant Professor, Department of General Medicine (Trauma and Emergency) at IGIMS, Patna; Expert member for workshop to develop a Nipah virus Research and Development roadmap for India, 6-7 August 2018, organized by ICMR and WHO-SEARO; Expert member for workshop on Malaria on occasion of World Malaria Day on 25 April 2018 organized by SEARO-WHO; Expert member for the meeting for Nipah: An emerging threat, country preparedness and challenges ahead’ organized by National Centre for Diseases Control (NCDC), New Delhi; Expert member for National Vector Borne Disease Control Programme (NVBDCP), Ministry of Health and Family Welfare, on evaluating different National Polices for prevention, control and management of Vector Borne Diseases; Expert member of Human Rights Commission, Government of India responsible for giving expert opinion in case of custodial death for legal proceeding; Expert member of Advisory Committee Group, ICMR, New Delhi; External Examiner of various National Universities/Medical Colleges; Expert member of selection board for combined Medical Services, Union Public Service Commission (UPSC), New Delhi; Expert member of selection board of the faculty of IGIMS, Patna, Bihar, highly appreciated by NVBDCP, Ministry of Health and Family Welfare, Government of India for organizing National Dengue Day and Dengue Symposium and Public Lecture organized in AIIMS, New Delhi, Special Invited for talk on Delhi Doordarshan Broadcasting: Topic - “Malaria” on
“Total Health Programme” on dated 29 April 2018 at Delhi Doordarshan, DD Bhawan (Tower – 2), Mandi House, New Delhi, Special Invited to talk on All INDIA RADIO LIVE SHOW topic: Zika Virus on 5 November 2018 at Akashvani Bhavan, Parliament Street, New Delhi.

**Professor Sanjeev Sinha** was Member of Medical Board Antarctica Expedition, Government of India, Goa; Member of Scientific Committee, NACO, Ministry of Health and FW, Government of India; Member of Health Wellness Programme, Ministry of Tourism, Government of India; Member of Review Committee of Journal of Physical Education and Sport Management, Published from South Africa; Member of Review Committee of Journal IJMR; Member of Review Committee of Journal of Current HIV Research; Member of Review Committee of projects funded by DHR, ICMR, Government of India; Member of Negotiation Committee of Central Store, AIIMS; Member Secretary of AIIMS Ethics Committee of PGR.

**Professor Naval K Vikram** was declared winner of ‘2018 8th Annual Research in Diverse Populations Tour Award’ for the abstract ‘Association of ectopic fat deposits with metabolic syndrome in Asian Indians’ in the The Obesity Week on 13 November 2018, in Nashville, Tennessee, USA; Awarded the ‘WORLD-INDIA DIABETES FOUNDATION (WIDF) 2019 INNOVATION AWARD’ on 6 January 2019 in Mumbai in recognition of innovative research in diabetes with potential application in patient management.

**Dr Manish Soneja** was Chairman Sub-Committee of Management of Influenza Guidelines, NCDC; Member Expert Group of National Guidelines on Dengue, Chikungunya and Influenza, Member Expert Group of ICMR Antibiotic Policy, and Sub-Committee of Standing National Committee on Medicines (SNCM) on Hygiene and other health care Products.

**VISITING SCIENTIST**

1. Professor David V Denning, Professor of Infectious Diseases in Global Health and a consultant in Infectious Diseases and Medical Mycology, Wythenshawe Hospital and University of Manchester, UK
2. Dr Ricard Ferrer, Head of Intensive Care, Valld’Hebron University Hospital, Barcelona, Spain on 27 March 2019.

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**9.20. Microbiology**

<table>
<thead>
<tr>
<th>Professor and Head</th>
<th>Gita Satpathy</th>
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<tbody>
<tr>
<td>Professors</td>
<td></td>
</tr>
<tr>
<td>Rama Chaudhry</td>
<td>Arti Kapil</td>
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<tr>
<td>Bimal K Das</td>
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<td>Assistant Professors</td>
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<tr>
<td>Sarita Mohapatra</td>
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<td>Kiran Bala</td>
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<td></td>
<td>Megha Brijwal</td>
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**HIGHLIGHTS**

The Department of Microbiology has always been dedicated towards patient care, teaching, research and CME programmes. It has been actively involved in teaching undergraduate and postgraduate students enrolled in MBBS, MD, PhD and BSc (Nursing) courses. The DM (Infectious Diseases) courses (3- and 6-years) have continued with the Department of Medicine.

The Department of Microbiology, which is an essential component of health care services, contributed significantly towards patient care. During this year it carried out a total of 2,81,601 diagnostic tests and also played a prime role in hospital infection control. The external inspection committee for Kaya Kalp made several visits to laboratories and other areas of the department and were extremely satisfied with the level of cleanliness and Bio-Medical waste management standards being followed. The department continued with the process of NABL accreditation.

The department made a significant contribution in terms of research with 73 publications in indexed national and international journals. Several funded research projects were started or continued during the period, many of which were in collaboration with other departments or institutes. Many award winning oral and poster presentations were made at national and international conferences.

The department was involved in the organization of a one day workshop on ‘Diagnostic Techniques in Mycology’ on 30 August 2018 and a workshop was organized for State Reference Laboratory (SRLs)—“EQAS panel distribution
EDUCATION

Undergraduate
MBBS for Medical Microbiology BSc (Nursing) - Medical Microbiology

Postgraduate
PhD (Microbiology)
Lecture - Once/week Journal Club - Once/week

MD (Microbiology)
Lecture/Seminar - Once/week Journal Club - Once/week
Tutorial - Twice/month Practical Exercise presentation - Twice/month
Laboratory postings in different sections of the department

DM (Infectious Diseases)
Seminar - Once/week
Laboratory postings in different sections of the department

Short-Term Training
The department provided short-term training to 18 candidates from various parts of the country.

CMEs/Workshops/Symposia/National and International Conferences
Organized by the department
1. One day workshop on ‘Diagnostic Techniques in Mycology’ on the 30 August 2018
2. Workshop Organized for State Reference Laboratory (SRLs)
   • EQAS panel distribution Workshop - 10 January 2019
     (Participants: PGIMER, Chandigarh, Government Medical College, Amritsar, Government Medical College,
     Patiala and Indira Gandhi Medical College, Shimla and HIV Laboratory Staff of AIIMS)
Lectures delivered
Gita Satpathy
1. Molecular Diagnosis of Paediatric Sepsis, CME on ‘Paediatric Sepsis’, 4 May 2018, Delhi
Rama Chaudhry
1. Probiotics—The wonder Drugs, CME on Probiotics at the Inaugural session of Chandigarh Region Menopause
   Society (CRMS), 14 April 2018, Chandigarh
2. Role of probiotics in prevention of neonatal sepsis, PEDS SEPSIS-2018, 4 May 2018, Delhi
3. Probiotics: An immunomodulator in health and disease, 2nd International Conference on Ear, Nose and Throat
   Disorders, 14-15 May 2018, Osaka, Japan
4. Clinical spectrum of *M. Pneumoniae* in Indian Patients, Joint Congress of 7th Meeting of the Asian Organization
   for Mycoplasma (7th AOM), 45th Meeting of the Japanese Society of Mycoplasmology (JSM), 18-20 May 2018
   Tokyo, Japan
5. Fermentation technology in probiotic supplementation for health benefits, Opportunities and challenges in
   fermentation based industrial processes, 13-14 September 2018, Jammu
   Genomics, Biology, Bioinformatics and Technology, 30 September-2 October 2018, Jaipur
8. Update on Emerging Infectious Diseases in India, MICROCON Bengaluru 2018, 29-30 November 2018, Bengaluru
Arti Kapil
1. Sterilization and Disinfection, Workshop on “Infection prevention, decontamination in oral health care”, 10 April
   2018, AIIMS, New Delhi
2. Healthcare associated infections, Conference on “Infection control practices in ophthalmic nursing”, 12 April 2018,
   AIIMS, New Delhi
3. Emergence of multi drug resistant pathologies in pediatric sepsis, “Paediatrics sepsis during PEDS SEPSIS 2018”, 4 May 2018, Chacha Nehru Bal Chikitsalaya, Delhi
4. Infection prevention aspects of indwelling intravascular medical devices, HISI Delhi NCR Chapter Meet, 7 July 2018, Indraprastha Apollo Hospital, New Delhi
5. Preparing quality antibiogram for disseminating AMR data, MICRO-D-CUM 2018, 10th Annual Conference, CME 2018, 2 November 2018, Indian Habitat Center, New Delhi
6. Antibiotic for Treatment of Typhoid Fever: Have we run out of the options, World Congress on Infectious Diseases and Antibiotics 2018 International Conference, 28 November to 1 December 2018, Bangalore, Karnataka

Lalit Dar
1. Nipah Virus, Faculty Continuing Medical Education Programme, 4 June 2018, New Delhi
2. Large group teaching, CMET workshop, 7 August 2018, Faridabad, Haryana
3. Nasal shedding of vaccine viruses in children 2-10 years of age after immunization with a Russian backbone Live-Attenuated Influenza Vaccine (LAIV), CDC Atlanta—AIIMS Delhi Cooperative Agreement Project Meeting, 23 August 2018, Atlanta, USA
4. Sequencing and phylogenic matching of LAIV viruses with the wild type influenza viruses isolated in the post-vaccination period, CDC Atlanta—AIIMS Delhi Cooperative Agreement Project Meeting, 23 August 2018, Atlanta, USA
5. Guidelines for the management of occupational exposure to HBV, HCV, HIV, and recommendations for PEP, National Training of Trainers for Laboratory Diagnosis: National Viral Hepatitis Control Programme (NVHCP), 11 October 2018, New Delhi
6. Influenza—Prevention and Infection control issues, Influenza A H1N1-Myths and Facts, 1 March 2019, New Delhi

BR Mirdha
2. Emerging Parasitic diseases, One day workshop on “Emerging Infectious Diseases”, 6 March 2019, Rohtak

Immaculata Xess
2. Diagnosis of invasive fungal infections in pediatrics, Paediatrics Sepsis, 4 May 2018, Delhi
4. Resistances to antifungal agents, mechanism and clinical impact, XIIth Annual State Conference of Indian Association of Medical Microbiologist, 7 October 2018, Berhampur

Benu Dhawan
1. Extragenital sexually transmitted chlamydial infection, ASTICON 2018, 11-13 October 2018, New Delhi

Seema Sood
2. DNA Biosensor for Diagnosis of Gonorrhoea, Indo-Japan Workshop on Biomedical Electronics and Organic Nanotechnology for Environment Preservation (IJWBME-2018), 6-9 December 2018, New Delhi

Urvashi B Singh
1. The Enigma of Latent TB, Panel Discussion, Pulmocrit 2019, 2 March 2019, New Delhi

Sarita Mohapatra
1. Introduction to HAI: An overview in Cardiotoracic Centre, Infection control workshop for health care personal, 4 April 2018, New Delhi
2. Collection and transport of specimens, Infection control workshop for health care personal, 4 April 2018, New Delhi
3. Hand Hygiene, Hospital infection control and prevention strategies and Hand Hygiene, 2 May 2018, New Delhi
4. Case based discussion on CAP, HAP and VAP, Imaging of chest infections, 4 August 2018, New Delhi
5. Current approach in the laboratory diagnosis of fungal pathogens, XIIth Annual State Conference of Indian Association of Medical Microbiologists, 7 October 2018, Berhampur, Odisha
7. Collection and transport of blood and other samples, CME for residents, Paediatrics, 11 November 2018, New Delhi

Aashish Choudhary
1. Anti-Viral Drug Susceptibility Testing, PG Assembly, Indian Association of Medical Microbiologists (IAMM)-Delhi Chapter, 17 August 2018, New Delhi
2. Laboratory diagnosis of influenza, Influenza A H1N1—Myths and Facts, 1 March 2019, New Delhi
3. Emerging viral infections—Indian Scenario, National Conference on Emerging Infectious Diseases, 6 March 2019, Rohtak, Haryana

Gagandeep Singh
2. Management issues in hospital laboratory services, 93rd Training Course on Hospital Administration for Senior Hospital Administrators, 27 September 2018, New Delhi
4. Sterilization and disinfection, Residents Induction training and Nurses training programme on infection control, Regular intervals, New Delhi
5. Standard precautions, Residents induction training and Nurses training programme on infection control, Regular Intervals, New Delhi

Hitender Gautam
1. Antimicrobial Resistance (AMR) in Hospital Associated Infections at IRCH, Clinical Grand Round for Department of Microbiology, 16 October 2018, New Delhi

Nishant Verma
1. Infections in dental settings, 1st Workshop on “Infection prevention, decontamination in oral health care”, 10 April 2018, AIIMS, New Delhi
2. Newer agents of parasitic diarrhea, 12th National Conference of Indian Academy of Tropical Parasitology (TROPACON 2018), 7-9 September 2018, Varanasi, Uttar Pradesh

Nishat Hussain Ahmed
1. Antimicrobial Resistance in Ocular Pathogens, Microbiology Clinical Grand Round, 16 October 2018, AIIMS, New Delhi

Megha Brijwal
1. Influenza—Virology and Epidemiology, Influenza A H1N1—Myths and Facts, 1 March 2019, New Delhi

Oral papers/posters presented
5. Arif N, Rawre J, Agrawal S, Khanna N, Juyal D, Dhawan B, A case of multiple sites of sexual contact infection due to Mycoplasma genitalium and Chlamydia trachomatis in a bisexual male, Indian association for the study of STD and AIDS, ASTICON 2018 at All India Institute of Medical Sciences, 11-13 October 2018, New Delhi
8. Biswal D, Agrawal SK, Choudhary SK, Chaudhry R, Anaerobes in cardiac infections: An under reported issue, World Congress on Infectious Diseases and Antimicrobials-2018, 28-29 November 2018, Bangalore
14. Dhawan B, Rawre J, Dhawan N, Bhatia R, Gupta V, Khanna N, High prevalence of Mycoplasma genitalium in men who have sex with men in a tertiary care hospital in New Delhi, Indian association for the study of STD and AIDS, ASTICON 2018 at All India Institute of Medical Sciences, 11-13 October 2018, New Delhi
15. Dubey D, Bamola VD, Kapardar RK, Lal B, Chaudhry R, A search for microbial Biomarkers for colon cancer in Indian population using a Next Generation sequencing Approach, 9th India Probiotic Symposium, “Probiotics through the lifespan”, 24-25 November 2018, Kolkata
23. Kothari S, Dhawan R, Aggarwal M, Seth T, Rath S, Mahapatra M, Gut Colonization with Carbapenem Resistant Enterobacteriaceae (CRE) Leads to More Chemotherapy Interruptions and Higher Mortality in Patients with Acute Leukemias Receiving Remission Induction Chemotherapy, American Society of Hematology Annual Meeting, 3 December 2018, USA


33. Rawre J, Namdeo D, Das R, Khanna N, Dar L, Dhawan B, Herpes Simplex Virus Type 2 and Cytomegalovirus in an HIV infected woman with a perigenital ulcer, INTERVIROCON 2018 at PGI, 12-14 November 2018, Chandigarh


42. Samanta P, Bamola VD, Chaudhry R, Evaluation of Functional Attributes, Survival Strength and Immuno-modulatory Potential of Indigenous Lactobacillus acidophilus Strains of Indian Gut, ASM MICROBE, 7-11 June 2018, Atlanta, Georgia

43. Samanta P, Bamola VD, Chaudhry R, Modulation of Mucosal Immunity by Indigenous Lactobacilli for Preventive, Therapeutic and Clinical Application, 9th India Probiotic Symposium, “Probiotics through the lifespan”, 24-25 November 2018, Kolkata


50. Sood S, Agarwal SK, Singh R, Gupta S, Sharma VK, In vitro Assessment of Gentamicin and Azithromycin Based Combination Therapy against Neisseria gonorrhoeae isolates in India, IUSTI-AP Sexual Health Congress, 1-3 November 2018, Auckland, New Zealand


52. Sreenath K, Chaudhry R, Antibiotic susceptibility of L.pneumophila isolates from water systems of a tertiary health care center, India, ASM MICROBE, 7-11 June 2018, Atlanta, Georgia


RESEARCH

Funded projects

Ongoing

1. Seroepidemiological study of Rickettsia and scrub typhus among patients with acute febrile illness and molecular detection by Real time PCR, Rama Chaudhry, DBT, 3 years, 2019-2022, Rs 69.8 lakhs

2. A detailed study to understand the non-putrefying property of river Ganga in both water and sediment, Rama Chaudhry, Ministry of Water Resources—Government of India, 2 years, 2017-2019, Rs 68 lakhs

3. A study to assess the effect of a probiotic strain (Bacillus clausii) on gut microbiota and mucosal immunity in Inflammatory Bowel Disease (Ulcerative Colitis/Crohn’s Disease), Rama Chaudhry, Unique Biotech Pvt Ltd, 4 years, 2016-2020, Rs 60 lakhs

4. Characterization of bacteriocins produced by Lactobacillus and assessment of Antimicrobial Profile, Rama Chaudhry, AIIMS, 2 years, 2017-2019, Rs 10 lakhs


6. National Surveillance System for Enteric Fever in India (NSSEFI) - Tier 3, Arti Kapil, ICMR, 2 years, 2018, Rs 40 lakhs for 1st year
7. NACO Regional Reference Lab for HIV Viral Load (VL) and Early Infant Diagnosis (EID), Lalit Dar, National AIDS Control Organization (NACO), 2012-Ongoing, Rs 10.98 lakhs (per annum)+reagent support

8. National Vector Borne Disease Control Programme apex laboratory for dengue and chikungunya, Lalit Dar, National Vector-borne Disease Control Programme (NVBDCP), 2012-Ongoing, Rs 3 lakhs (per annum)+reagent support

9. A multi-centric observational study to examine replicative fitness and pathogenic properties of the emerging new viral strains of HIV-1 in India, Bimal K Das, DBT, 2 years, 2018-2019, Rs 21 lakhs


12. Multicentric prospective hospital based sentinel surveillance to determine the etiology of acute bacterial in children with conventional and molecular methods, Bimal K. Das, Central Research Laboratory, KIMS Medical College, Bangalore, 2 years, 2018-2019, Rs 1.45 lakhs

13. Study of immunopathogenesis and disease dynamics of Pneumocystis jirovecii pneumonia (Pneumocystis pneumonia), BR Mirdha, SERB, DST, 3 years, 2018-2021, Rs 44 lakhs

14. Invasive Fungal Infections: Epidemiology, Drug Resistance and Molecular characterization of the clinical and environmental isolates from the hospital, Immaculata Xess, ICMR, 3 years, 2017-2020, Rs 52 lakhs

15. Early detection of Hemophilus ducreyi, Treponema pallidum, Herpes Simplex Virus type 1 and 2 from patients with genital ulcer disease by Multiplex PCR in a tertiary care hospital, Benu Dhawan, ICMR, 3 years, 2017-2020, Rs 37.63 lakhs

16. Nano-enabled Biosensor for detection of N. gonorrhoeae, Seema Sood, DBT, 3 years, 2016-2019, Rs 50 lakhs

17. Development of an aptamer based detection system for N. gonorrhoeae, Seema Sood, DHR, 3 years, 2016-2019, Rs 46.5 lakhs

18. Studies on halophilic/haloalkaliphilic actinomycetes and bacteria from hyper saline habitat as potential source of antibacterial molecules for drug resistant microbes, Arti Kapil and Seema Sood, AIIMS-IIT Delhi Collaborative Research Grant, 2 years, 2019-2021, Rs 10 lakhs

19. Crohn’s Disease in India: A multicenter study from a country where intestinal tuberculosis as well as Crohn’s Disease is endemic, Urvashi B Singh, DHR, 3 years, 2016-2019, Rs ~5 crores

20. Utility of Moxifloxacin as a treatment option in Pre-XDR-TB, Urvashi B Singh, Delhi State OR Task Force, RNTCP, 1 year, 2017-2018, Rs 2 lakhs


22. Diagnosis of pulmonary and extra pulmonary tuberculosis patients using differentially expressed proteins as potential biomarkers: an approach towards development of point of care test, Urvashi B Singh, ICMR, 3 years, 2018-2021, Rs ~60 lakhs

23. Rapid Molecular Drug Resistance Detection for MDR And XDR-TB And Molecular Typing of Mycobacterium tuberculosis from Ziehl-Neelsen’s Stained Microscopic Slides From Delhi State, Urvashi B Singh, ICMR, 3 years, 2018-2021, Rs ~60 lakhs

24. Mapping hotspots of MDR-TB in Sikkim, Assam and Tripura using Genomics approaches, Urvashi B Singh, DBT-NER, 3 years, 2018-2021, Rs ~4 crores

25. Validation of Novel Bio-signature for Diagnosis of Active Pulmonary Tuberculosis in Children, Urvashi B Singh, DBT, 3 years, 2018-2021, Rs ~38 lakhs

26. Design and Validation of point of Care Disposable Senor Strip for Diagnosis of Tuberculosis from Urine samples, Urvashi B Singh, DBT, 3 years, 2018-2021, Rs ~60 lakhs

27. Multi-centric Validation of Conventional Phenotypic Assays for diagnosis of Drug Resistant tuberculosis from Sputum samples, Urvashi B Singh, DBT, 2 years, 2018-2020, Rs ~100 lakhs

28. Validation of indigenously developed technologies for diagnosis of Paediatric Pulmonary tuberculosis: Multicentric, Urvashi B Singh, ICMR, 1 year, 2018-2019, Rs ~1.25 crores

29. Validation of indigenously developed technologies for diagnosis of Extra-Pulmonary tuberculosis: Multicentric, Urvashi B Singh, ICMR, 1 year, 2018-2019, Rs ~1.25 crores

30. Prevalence of Histoplasmosis in HIV positive patients, Gagandeep Singh, AIIMS, 2 years, 2017-2019, Rs 6 lakhs

31. Biomarkers for bacteremia, antimicrobial resistance and hospital acquired infections by NMR and Mass Spectrometry among febrile neutropenic patients, Hitender Gautam, Biotechnology Industry Research Assistance Council (BIRAC), DBT, 1.5 years, 2019-2020, Rs 36.46 lakhs
32. Investigation of Colistin sensitivity by different methods and rapid detection of Colistin resistance in Enterobacteriaceae, Hitender Gautam, AIIMS, 1 year, 2018-2019, Rs 4.94 lakhs

33. Magnitude of asymptomatic malaria infections in pregnant women in a community hospital, Nishant Verma, AIIMS, 1 year, 2018-2019, Rs 4.98 lakhs

34. Clinical evaluation of viability assays for assessing treatment response in pulmonary tuberculosis, Kiran Bala, AIIMS, New Delhi, 1 year, 2018-2019, Rs 4.94 lakhs

35. Detection and genotyping of BK polyomavirus in renal transplant recipients, Megha Brijwal, AIIMS, 2 years, 2017-2019, Rs 4.20 lakhs

36. Investigation of viral aetiologies in neonates with microcephaly, Megha Brijwal, Scheme for Promotion of Academic and Research Collaboration (SPARC), MHRD, 2 years, 2019-2021, Rs 63.66 lakhs

**Completed**

1. Defining ECOFF value for Azithromycin susceptibility in Salmonella enteric serovar Typhi and Paratyphi A, Arti Kapil, ICMR, 2 years, 2016-2018, Rs 22 lakhs

2. Enhancing bio-risk mitigation awareness in public health community and creating lab networks for surveillance and outbreaks of high-risk group viral pathogens causing VHF and respiratory infections, Lalit Dar, Centre for Disease Control (CDC), Atlanta (through NIV, Pune), 3 years, 2015-2018, Rs 44.38 lakhs per annum

3. Quantitative real time PCR and genotyping for Human Cytomegalovirus (HCMV) in ulcerative colitis, Lalit Dar, ICMR, 4 years, 2014-2018, Rs 7.08 lakhs

4. Population genetics study of Pneumocystis jirovecii in respiratory clinical specimens and its correlation with the clinical status of patients with Pneumocystis pneumonia, BR Mirdha, SERB, DST, 3 years, 2014-2017, Rs 28 lakhs

5. Identification of Plasmodium falciparum cytoadherence molecule in Cerebral malaria, B R Mirdha, DBT, 2 years, 2016-2018, Rs 36 lakhs

6. Molecular analysis of N. gonorrhoeae isolates obtained from STD patients from across the country with in vitro decreased susceptibility to cephalosporins and macrolide resistance, Seema Sood, ICMR, 2.5 years, 2015-2017, Rs 35 lakhs

7. To Study Current Practice in the Management of Bacterial Urinary tract infection in patients at AIIMS, New Delhi with focus on current antibiotic usage and clinical outcome, Sarita Mohapatra, AIIMS, 1 year, 2018-2019, Rs 1 lakh

8. Prevalence and molecular characterization of Occult Hepatitis C Infection (OCI) in patients with cryptogenic liver disease, Aashish Choudhary, AIIMS, 3 years, 2015-2018, Rs 3.45 lakhs per annum

9. To study the association of Mycobacterium tuberculosis with pancytopenia, Hitender Gautam, AIIMS, New Delhi, 2 years, 2016-2018, Rs 4.50 lakhs


11. Establishment of Multiplex PCR for Detection of Herpes Simplex Viruses Type 1 and Type 2, Cytomegalovirus, Varicella-Zoster Virus and Adenovirus in Ocular Viral Infections, Nishat Hussain Ahmed, AIIMS, 2 years, 2016-2018, Rs 7.7 lakhs

**Departmental projects**

**Ongoing**

1. Audit for antifungal treatment usage in adults with invasive fungal infections
2. BK and JC polyomavirus detection in patients with allogeneic hematopoietic stem cell transplant
3. Characterization of Lactobacillus strains and assessment of their immunomodulatory effects
4. Clinico-microbiological profile and outcome of urosepsis—A prospective study in a tertiary care hospital in North India
5. Correlation of antibiotic resistance patterns of ocular bacterial isolates and antibiotic use in patients admitted to hospital—A step towards antimicrobial stewardship
6. Detection of N. gonorrhoeae in genital and extra genital sites in men who have sex with men (MSM)
7. Etiological agent in ventilator associated pneumonia with special emphasis on atypical organisms
8. Magnitude of Prosthetic Joint Infections and role of amplification based DNA analysis for identifying microbial profile of prosthetic joint infection in a tertiary care hospital
9. Microbiological follow up and genotypic investigation of close contacts of MDR-TB patients
10. Molecular detection and characterization of tick borne Lyme Borreliosis, Human Monocytic Ehrlichiosis and Human Granulocytic Anaplasmosis
11. Molecular detection and characterization of Rickettsiaeae among patients with acute febrile illness
12. Molecular detection of Legionella pneumophila by real time PCR and characterization of isolates by sequence based typing
13. Occurrence of Chlamydia trachomatis, Ureaplasma urealyticum, Mycoplasma hominis and Mycoplasma genitalium in patients with sterile pyuria
14. PCR for EBV DNA PCR in patients with suspected nasopharyngeal carcinoma
15. Real time PCR for diagnosis of invasive fungal infections
16. Role of aptamer technology in detection of Bacterial Vaginosis (BV) associated bacteria
17. Role of HCMV reactivation in causing pneumonia in immunocompetent, mechanically-ventilated patients
18. Screening for Candida Colonization, with Special Reference to Candida auris Among Patients Admitted in Medicine ICU
19. Serum Homocysteine (HCY) as a non-invasive diagnostic marker of spontaneous bacterial peritonitis
21. Species Identification and Determination of Virulence Factors of Coagulase Negative Staphylococci in Ocular Infections
22. Staphylococcus aureus colonization in HIV infected patients: Incidence, risk factors and subsequent skin and soft tissue infections
23. Study of bacterial infections in a cohort of patients clinically diagnosed of Pneumocystis jirovecii Pneumonia (PjP)/ Pneumocystis Pneumonia (PCP) and its impact on outcome of the disease
24. Study of Pneumocystis jirovecii as an etiology of bronchiectasis and its effect on disease progression
25. The bacterial etiology and risk factors of early onset and late onset ventilator associated pneumonia in pediatric intensive care unit patients
26. Use of advanced genomics in Microbiology of culture negative infections

**Completed**

1. Detection and molecular characterization of Microsporidia in Inflammatory Bowel Disease
2. Diagnosis of Clostridium difficile from diarrheal stool samples and detection of toxin A and B by ELISA and conventional Polymerase Chain Reaction (PCR)
3. High Resolution Melting (HRM) curve analysis for Detection of Decreased Susceptibility to Extended Spectrum Cephalosporins in N. gonorrhoeae
4. Incidence of Respiratory Syncytial Virus (RSV) infection in adults following haematopoietic stem cell transplantation
5. Infectious vs. non infectious causes of mono/oligoarticular inflammatory arthritis: A prospective study from a tertiary care hospital in North India
6. Isolation and identification of human gut microbiota from fecal samples by conventional culture techniques
7. Molecular Characterization of Fungi from Mycotic Keratitis and Invasive Infections and Comparison with conventional methods like direct detection and culture
8. Prevalence of intestinal colonization and blood-stream infection due to Carbapenem resistant Enterobacteriaceae in haematological malignancy patients
9. Prevalence of moulds and nocardial infections in patient admitted to pulmonary ward and ICU
10. Quantitative real time PCR and genotyping for cytomegalovirus in ulcerative colitis
11. Study of human Intestinal microbiota by Metagenomics approach and host innate immune response in Indian obese and lean individuals
12. The effect of implementation of Antibiotic Stewardship in Pulmonary Medicine ward and ICU
13. The effects of an antimicrobial stewardship model in the medical wards and intensive care unit of a tertiary care hospital
14. To identify prognostic markers for Category II pulmonary tuberculosis patients
Collaborative projects

**Ongoing**

1. A Phase-IV, double blind, comparative, prospective, multicentric study to assess safety and efficacy of fixed dose combination of Clindamycin 100 mg and Clotrimazole 100 mg vs Clotrimazole 100 mg vaginal suppositories in patients with mixed vaginal infection, Obstetrics and Gynaecology

2. A prospective observational study on clinical profile and treatment outcome of patients with Chronic Pulmonary Aspergillosis attending tertiary care hospital, Medicine

3. AMR-Diag: A novel diagnostic tool for sequence based prediction of antimicrobial resistance, Biophysics

4. Analysis of the diagnostic or predictive potential of metabolomics in BV, its treatment failure, relapse and susceptibilities to other STIs, Dermatology

5. Analysis of vaginal microbiome and metabolome in women affected with bacterial vaginosis before and after treatment and their correlation with relapse or recurrences, Dermatology

6. Association of therapeutic drug levels and worm infestation with treatment response in patients with TB lymphadenitis, Medicine

7. CDC-AIIMS Cooperative Agreement projects on Influenza and other respiratory viruses, Centre for Disease Control (CDC), Atlanta (USA) and Centre for Community Medicine

8. Clinical efficacy of using MALDI-TOF MS over Conventional processing in Blood Stream Infections patients combined with Prescription pattern monitoring: A pre-post quasi experimental study, Medicine


10. Cryptococcal antigenemia in people living with HIV and AIDS, Medicine

11. Detection of *V. cholerae* in stool samples by loop mediated isothermal amplification method, Biomedical Engineering, AIIMS and IIT, Delhi

12. Effect of probiotic supplementation on cognition and motor symptom in patients with fluctuating Parkinson’s Disease, Physiology


14. Elucidating Role of microRNA in the pathogenesis of active generalized vitiligo and in pigment regulation, Dermatology

15. Evaluation of risk factors for severity in *Plasmodium vivax* infection—A prospective study, Medicine

16. Evaluation of various clinical and immunological parameters in predicting the outcome of sino-nasal and skull base invasive fungal diseases: A descriptive study, Otorhinolaryngology

17. Exploration of alternate salivary diagnostic strategies for ovarian cancer, Biophysics

18. Invasive fungal infections and role of biomarkers and molecular approaches in early diagnosis, Medicine

19. Molecular Detection of Colistin Resistance in Multidrug Resistance Gram Negative bacilli from various Clinical Samples, Texila American University

20. Multi-centric prospective hospital based sentinel surveillance to determine the aetiology of acute bacterial meningitis in children, Central Research Laboratory, K.I.M.S. Hospital and Research Centre, Kempegowda Institute of Medical Sciences, Bangalore

21. Multiplexed Point-of-Care Test for acute febrile illness (mPOCT), Paediatrics

22. Study of virulence factors of Uropathogenic Escherichia coli and its antibiotic susceptibility pattern, Texila American University

23. The clinicopathological evaluation of cholesteatoma aggressiveness, ENT

24. The effect of candida and antifungal therapy on pro-inflammatory cytokines in Oral Leukoplakia—A pilot study, Oral Medicine and Radiology, CDER,

25. To study diagnostic performance of presepsin in Sepsis: A pilot study, Medicine

26. To study the dynamic relationship of airway colonization and Endotracheal Tube Biofilm with Ventilator Associated Pneumonia, Pulmonary Medicine

**Completed**

1. A clinical study on the investigation of carries risk in children with Clify Lip and or Palate (CL/P) and non-cleft control, Orthodontics, CDER

2. A phase IIB Open Label Randomized trial to evaluate the anti-bacterial activity, pharmacokinetics, safety and tolerability of metformin when given along with rifampicin, isoniazid, pyrazinamide and ethambutol in adults
3. A proof-of-concept study of 3 days intravenous Ceftriaxone followed by switch to oral Cefexime with Nephrotic Syndrome, Paediatrics
4. Assessment of Microflora of Dental carries in Indian children using anaerobic culture and molecular techniques, Paedodontics, CDER
5. Epidemiology of chronic dermatophytosis, Dermatology
6. Phase III, randomized, double-blind, placebo controlled trial to evaluate the efficacy and safety of VPM1002, Immunovac Vaccines in Preventing of Tuberculosis Disease in Healthy Household Contacts of Newly Diagnosed Sputum Positive Pulmonary TB (PTB) Patients, Pulmonary Medicine and Sleep Disorders
7. Randomized controlled trial to compare efficacy of Decongestive Compression Therapy and injection Benzathine Penicillin G vs Decongestive Compression Therapy, injection Benzathine Penicillin - G and Placement of Hydrophobic Silicone tube in upper limb Lymphedema following ALND in Breast Cancer, Surgery
8. Study of intestinal microbiota in Juvenile Idiopathic Arthritis—A cross-sectional observational study, Lady Hardinge Medical College and Associated Hospitals, New Delhi
9. To determine if colonization of gut with carbapenemase resistant enterobactericeae in surveillance cultures affect the outcome of the high risk febrile neutropenic patients, Hematology
10. To study the antimicrobial prescribing practices in critically ill patients in Pulmonary Medicine ICU, Pulmonary Medicine
11. Utility of isotretinoin with or without terbinafine in patients with chronic dermatophytosis, Dermatology

PUBLICATIONS


PATIENT CARE

The Department of Microbiology did a total of 2,81,601 tests during the year 2018-2019.

<table>
<thead>
<tr>
<th>Name of assay/test/investigation</th>
<th>No. of tests performed</th>
<th>Name of assay/test/investigation</th>
<th>No. of tests performed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BACTERIOLOGY LAB</strong></td>
<td></td>
<td><strong>PARASITOLOGY LAB</strong></td>
<td></td>
</tr>
<tr>
<td>Pus samples culture and identification</td>
<td>17,174</td>
<td>Intestinal parasitosis</td>
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<tr>
<td>Urine samples culture and identification</td>
<td>33,560</td>
<td>Stool examination - Ova/Parasites (wet mount/concentration)</td>
<td>2,536</td>
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<tr>
<td>Blood samples culture and identification</td>
<td>26,325</td>
<td>Coccidian parasites - Mod. Acid-fast/special staining</td>
<td>2,536</td>
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<tr>
<td>Sputum/Throat swab/Tracheal swab samples culture and identification</td>
<td>16,969</td>
<td>In-vitro culture</td>
<td>42</td>
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<tr>
<td>CSF samples culture and identification</td>
<td>9,072</td>
<td>PCR assay for Microsporidia</td>
<td>21</td>
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<tr>
<td>Stool samples culture and identification</td>
<td>1,451</td>
<td>Malaria</td>
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<tr>
<td><strong>Antimicrobial susceptibility testing</strong></td>
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<tr>
<td>Pus/Exudates/Tissue - Antimicrobial susceptibility testing</td>
<td>2,839</td>
<td>Acridine Orange (AO) fluorescent staining</td>
<td>4,411</td>
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<tr>
<td>Urine - Antimicrobial susceptibility testing</td>
<td>2,629</td>
<td>Quantitative Buffy Coat (QBC)</td>
<td>4,411</td>
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<tr>
<td>Blood - Antimicrobial susceptibility testing</td>
<td>1,726</td>
<td>Malaria Antigen detection assay</td>
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<tr>
<td>Respiratory samples - Antimicrobial susceptibility testing</td>
<td>2,397</td>
<td>Leishmaniasis (Kala azar)</td>
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<tr>
<td>CSF and other fluids - Antimicrobial susceptibility testing</td>
<td>739</td>
<td>Giemsa staining</td>
<td>36</td>
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<td>Stool - Antimicrobial susceptibility testing</td>
<td>0</td>
<td>Acridine Orange (AO) fluorescent staining</td>
<td>36</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,14,881</td>
<td>Kala-azar serology (rk-39)</td>
<td>766</td>
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</tbody>
</table>

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## Hospital Infection Control (HIC) Lab.

<table>
<thead>
<tr>
<th>Test</th>
<th>Count</th>
<th>Description</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveillance cultures</td>
<td>23,731</td>
<td>Thin Smear</td>
<td>542</td>
</tr>
<tr>
<td>CSSD/Sterilization Monitoring</td>
<td>7,034</td>
<td>Thick Smear</td>
<td>542</td>
</tr>
<tr>
<td>Water samples</td>
<td>1,947</td>
<td>Acridine Orange (AO) fluorescent staining</td>
<td>542</td>
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<tr>
<td><strong>Total</strong></td>
<td>32,712</td>
<td>Filaria antigen detection</td>
<td>542</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quantitative Buffy Coat (QBC)</td>
<td>542</td>
</tr>
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</table>

## Anaerobic, Special Pathogens and Mycoplasma Labs

<table>
<thead>
<tr>
<th>Test</th>
<th>Count</th>
<th>Description</th>
<th>Result</th>
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</thead>
<tbody>
<tr>
<td>Anaerobic culture (Blood, Bile, BAL, CSF, Tissue)</td>
<td>682</td>
<td>Investigation for detection of <em>Pneumocystis jirovecii</em> infection (PCP) by staining and PCR assay</td>
<td>350</td>
</tr>
<tr>
<td><em>C. difficile</em> stool culture</td>
<td>358</td>
<td>Cerebrospinal fluid examination for Free Living Amoebae (FLA)</td>
<td>51</td>
</tr>
<tr>
<td>Stool samples for <em>C. difficile</em> ELISA</td>
<td>357</td>
<td>Worm specimens</td>
<td>6</td>
</tr>
<tr>
<td>Bartonella culture</td>
<td>23</td>
<td>Arthropod specimens</td>
<td>2</td>
</tr>
<tr>
<td>Bartonella IFA</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leptospira culture - Blood</td>
<td>51</td>
<td>Amoebic Serology for anti-amoebic IgG antibodies by ELISA</td>
<td>122</td>
</tr>
<tr>
<td>Leptospira culture - Urine</td>
<td>47</td>
<td>Hydatid disease serology (ELISA/IHA)</td>
<td>111</td>
</tr>
<tr>
<td>Anti-Leptospira IgM (ELISA)</td>
<td>4584</td>
<td>Toxoplasmosis serology for IgG antibodies by ELISA</td>
<td>23</td>
</tr>
<tr>
<td>Leptospira - Urine dark ground microscopy</td>
<td>654</td>
<td></td>
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<tr>
<td>Leptospira - Plasma dark ground microscopy</td>
<td>658</td>
<td>Examination of aspirates (Sputum, Pus etc.)</td>
<td>58</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>27,592</td>
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</table>

## Legionella Serology

<table>
<thead>
<tr>
<th>Test</th>
<th>Count</th>
<th>Description</th>
<th>Result</th>
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<tbody>
<tr>
<td>Legionella serology</td>
<td>404</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legionella Urine Antigen</td>
<td>80</td>
<td></td>
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<tr>
<td>Legionella culture</td>
<td>205</td>
<td></td>
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<tr>
<td>Legionella environmental sampling</td>
<td>75</td>
<td><strong>Molecular tests</strong> (PCR, RT-PCR)</td>
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<tr>
<td>Legionella PCR</td>
<td>404</td>
<td>Influenza real time multiplex RT-PCR</td>
<td>1,347</td>
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<tr>
<td>Scrub typhus IgM ELISA</td>
<td>714</td>
<td>Respiratory virus panel (other than influenza) multiplex PCR</td>
<td>1,180</td>
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<tr>
<td>Scrub typhus IFA</td>
<td>438</td>
<td>HSV 1&amp;2 DNA PCR (CSF, GUD, Ocular etc.)</td>
<td>955</td>
</tr>
<tr>
<td>Scrub typhus PCR</td>
<td>162</td>
<td>HCMV DNA PCR (Urine, Colonic biopsy, CSF etc.)</td>
<td>1,483</td>
</tr>
<tr>
<td>ICT for Scrub typhus</td>
<td>522</td>
<td>HIV-1 total nucleic acid RT-PCR (Early Infant Diagnosis)</td>
<td>3,720</td>
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<tr>
<td>Mycoplasma serology</td>
<td>404</td>
<td>HIV-1 RNA RT-PCR (viral load)</td>
<td>62</td>
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<tr>
<td>Mycoplasma culture</td>
<td>324</td>
<td>Dengue, Chikungunya and Zika virus real time RT-PCR</td>
<td>170</td>
</tr>
<tr>
<td>Mycoplasma PCR</td>
<td>404</td>
<td>Polyomavirus (BK/JC) real time RT-PCR</td>
<td>307</td>
</tr>
<tr>
<td><em>Mycoplasma hominis</em> culture</td>
<td>304</td>
<td>John Cunningham (JC) virus nested PCR</td>
<td>26</td>
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<tr>
<td><em>Mycoplasma hominis</em> PCR</td>
<td>419</td>
<td>Viral Meningitis/encephalitis PCR panel (HSV, Enteroviruses, Parechoviruses, VZV, Mumps)</td>
<td>61</td>
</tr>
<tr>
<td><em>Ureaplasma urealyticum</em> culture</td>
<td>304</td>
<td>Varicella Zoster Virus (VZV) DNA PCR</td>
<td>14</td>
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<tr>
<td><em>Ureaplasma urealyticum</em> PCR</td>
<td>419</td>
<td>Epstein-Barr Virus (EBV) DNA PCR</td>
<td>08</td>
</tr>
<tr>
<td>Test Description</td>
<td>Count</td>
<td>Method/Procedure</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>-------</td>
<td>----------------------------------------------------------------------------------</td>
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<tr>
<td>ELISA for <em>Chlamydia pneumoniae</em> IgM antibodies</td>
<td>404</td>
<td>Parvovirus B19 real time PCR</td>
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<tr>
<td><em>Chlamydia trachomatis</em> PCR</td>
<td>451</td>
<td><em>Virus isolation</em></td>
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<tr>
<td><em>Mycoplasma genitalium</em> PCR</td>
<td>231</td>
<td>Cell culture (Influenza A/B, Dengue, HSV 1&amp;2, Adenovirus, etc.)</td>
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<tr>
<td>Total</td>
<td>14,105</td>
<td><em>Antigen detection</em></td>
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<td></td>
<td></td>
<td>HCMV pp65 antigenemia (Immunofluorescence test)</td>
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<td>SEXUALLY TRANSMITTED DISEASES (STD) LAB</td>
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<td>High vaginal swabs (HVS)</td>
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<td><em>Antibody detection</em></td>
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<tr>
<td>Semen</td>
<td>1,176</td>
<td>Anti-Dengue IgM (ELISA)</td>
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<tr>
<td>Expressed prostatic secretions (EPS)</td>
<td>39</td>
<td>Anti-Chikungunya IgM (ELISA)</td>
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<tr>
<td>Urethral discharge</td>
<td>83</td>
<td>Anti-Japanese Encephalitis IgM (ELISA)</td>
<td></td>
</tr>
<tr>
<td>Cervical discharge</td>
<td>140</td>
<td>Anti-Measles antibody- Complement Fixation Test (CFT)- for SSPE diagnosis (CSF/serum)</td>
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<tr>
<td>Vaginal discharge</td>
<td>26</td>
<td>Anti-Measles IgG/total IgG (ELISA) (CSF/serum)</td>
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<tr>
<td>Pharyngeal swabs</td>
<td>40</td>
<td><strong>Miscellaneous</strong></td>
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<tr>
<td>Rectal swabs</td>
<td>40</td>
<td>Tzanck smear (for HSV 1&amp;2, VZV)</td>
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<tr>
<td>Urethral swabs</td>
<td>158</td>
<td><strong>Total</strong></td>
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<tr>
<td>Vaginal swabs for BV (Microscopy alone)</td>
<td>217</td>
<td>18,630</td>
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<tr>
<td>Urethral discharge - PCR for <em>Neisseria gonorrhoea</em></td>
<td>83</td>
<td><strong>MYCOLOGY AND ICP LAB</strong></td>
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<tr>
<td>Vaginal discharge - PCR for <em>Neisseria gonorrhoea</em></td>
<td>26</td>
<td><strong>Direct Microscopy/Culture</strong></td>
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<tr>
<td>Cervical discharge - PCR for <em>Neisseria gonorrhoea</em></td>
<td>140</td>
<td>Blood culture /Bone marrow/Blood BACTEC</td>
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<tr>
<td>Rectal swabs - PCR for <em>Neisseria gonorrhoea</em></td>
<td>40</td>
<td>Respiratory (BAL, Sputum, Tracheal aspirate)</td>
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<tr>
<td>Pharyngeal swabs - PCR for <em>Neisseria gonorrhoea</em></td>
<td>40</td>
<td>Urine</td>
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<tr>
<td><strong>Antimicrobial susceptibility testing</strong></td>
<td></td>
<td><strong>C.S.F</strong></td>
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<tr>
<td>High Vaginal Swabs (HVS)</td>
<td>103</td>
<td>Tissue/Biopsy</td>
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<tr>
<td>Semen</td>
<td>126</td>
<td>Skin scrapings/Nail/Hair</td>
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<tr>
<td>Expressed prostatic secretions (EPS)</td>
<td>16</td>
<td>Fluid (Peritoneal, Pericardial and Ascitic fluid)</td>
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<tr>
<td>Urethral discharge</td>
<td>04</td>
<td>Pus</td>
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<tr>
<td>Cervical discharge</td>
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<td>Miscellaneous (Plates, Swabs, Catheter tips)</td>
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<td>Vaginal discharge</td>
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<td><strong>Fungal Serology/Antifungal /TDM/PCR</strong></td>
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<tr>
<td>Pharyngeal swabs</td>
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<td>Cryptococcal antigen</td>
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<td>Rectal swabs</td>
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<td>Galatomanan antigen</td>
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<td><strong>Total</strong></td>
<td>2,803</td>
<td>Urinary Histoplasma antigen</td>
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<td>β D Glucan assay</td>
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<tr>
<td>HIV IMMUNOLOGY LAB.</td>
<td></td>
<td>Histoplasma antibody</td>
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<tr>
<td>HIV testing</td>
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<td>Aspergillus antibody</td>
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<tr>
<td>CD4 counts</td>
<td>11,593</td>
<td>TDM (Voriconazole)</td>
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**AIIMS 2018-19 / 254**
Western blot for HIV indeterminate samples
(Received from linked State Reference Laboratories)

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<thead>
<tr>
<th>Test</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antifungal susceptibility</td>
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<tr>
<td>PCR (Panfungal 11, Histoplasma 3, Cryptococcus 1, Aspergillus 2)</td>
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SEROLOGY LAB.

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</table>

HIV Immunology Laboratory:
- NABL accredited laboratory - Successful NABL reassessment in July 2018
- Quality Control Programme (External Quality Control Activities)
  - EQAS activity with Apex Lab National AIDS Research Institute, Pune
    - July 2018 and December 2019: Performance: 100%
  - EQAS Panel Distributed to 4 State Reference Laboratories (SRLs)
    - September 2018 and January 2019 - 100% Participation
  - International EQAS activity with National Serology Reference Laboratory (NSRL), Australia
    - June 2018 and September 2018. Performance: 100%
- ICTC activity
  - Pre-test Counseling: 2,561 Patients
  - Post test counseling: 2,515 Patients
  - Referred to RNTCP center: 30 Patients

Parasitology Laboratory:
- Quality Control Programme (External Quality Control Activities)
  - Accorded Grade A by Indian Academy of Tropical Parasitology for its routine diagnostic services

Serology Laboratory:
- External Quality Assessment Scheme (EQAS): Participated in EQAS for Syphilis Serology (VDRL/TPHA/RPR) with APEX Regional STD Laboratory, Department of Microbiology, Safdarjung Hospital, New Delhi and our performance was excellent

STD Laboratory:
- External Quality Assessment: Participated in External Quality Assurance (EQA) programme of WHO GASP (Gonococcal Antimicrobial Surveillance Programme) and our percentage score was 97.3%

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Gita Satpathy made a scientific advisory group member for the Epidemiology and Communicable Diseases Division of ICMR.

Professor Rama Chaudhry: American Society for Microbiology (ASM) 4th National Hands on Workshop on Anaerobic Culture Techniques “An Encounter with Anaerobes” on 9 April 2018 at Father Muller Medical College, Kankanady, Mangalore, India; ASM Round Table on Reducing Food Borne Illness: Strengthening Surveillance Capabilities and Epidemiological Investigations” to bring all stakeholders under one roof including WHO, NCDC, FSSAI, FAO CDC-India on 27 April 2018 at New Delhi, India; Appointed as a member of American Society for Microbiology (ASM) Ambassador Leadership Circle (ALC) for 2018-2019; Reappointed as ASM international ambassador to India 2018-2021; Travel grant under the category of “Young Investigator Award,” to present the paper in 9th India Probiotic Symposium, “Probiotics through the lifespan,” held at Amity University, Kolkata, 24-25 November 2018, organized by Yakult Gut Microbiota foundation for the paper “A search for microbial biomarkers for colon cancer in Indian population using a Next Generation sequencing
Professor Benu Dhawan was awarded second prize for Dr PS Ranganathan Memorial Award for the paper entitled “High prevalence of Mycoplasma genitalium in Men who have sex with men in a tertiary care hospital in New Delhi”. Dhawan B, Rawre J, Dhawan N, Bhatia R, Gupta V, Khanna N at the 42nd Indian association for the study of STD and AIDS (ASTICON 2018) held at All India Institute of Medical Sciences, New Delhi on 11-13 October; Awarded Dr CN Sowmini Award for poster entitled “A case of multiple sites of sexual contact infection due to Mycoplasma genitalium and Chlamydia trachomatis in a bisexual male”. Arif N, Rawre J, Agrawal S, Khanna N, Juyal D, *Dhawan B at Indian association for the study of STD and AIDS (ASTICON 2018) held at All India Institute of Medical Sciences, New Delhi on 11-13 October. *Senior author; Awarded the Global Health Travel Award funded by The Bill and Melinda Gates Foundation to present the poster “Association between dysbiosis of the vaginal microbiota and bacterial infections”. Apoorva, Gupta S, Sood S, *Dhawan B, Kachhawa G, Saxena AK, Sharma VK at Keystone Symposia S6: Role of the Genital Tract Microbiome in Sexual and Reproductive Health held in Cape Town, South Africa, 11-15 December 2018.*Co-author.

Professor Immaculata Xess and Dr Gagandeep Singh received best poster award: Monalisa Sahu, Immaculata Xess, Manish Soneja, Naveet Wig, Gagandeep Singh. Outbreak of Candida auris in a Medical ICU in a Tertiary Care Hospital and its Containment. MYCOCON 2019. September 2019.

Professor Seema Sood received IUSTI-IASSTD and AIDS Scholarship; Member - Stream Committee (Scientific Programme Committee-SPC) of 2018 IUSTI Asia Pacific Sexual Health Congress held in Auckland, 1-3 November 2018, Executive member - IUSTI Asia Pacific Region, Faculty - National Board of Examination (NBE), Member - Organizing team of ASTICON-2018, Member - Project Monitoring Committee, BIRAC, DBT, Member - Student Research Advisory Committee (SRAC) Jamia Millia Islamia, Member - Institution Human Ethical Committee (IHEC), ACBR (Dr BR Ambedkar Centre for Biomedical Research), Appointed Examiner for DNB Exam - Government College, Baroda.

Professor Urvashi B Singh was Co-Chair Person, National Technical Expert Group on Diagnosis of Tuberculosis under RNTCP, constituted in 2018; Member, National Technical Working Group on LTBI Management in India, constituted in 2018; Member, National Technical Expert Group on Treatment of Tuberculosis under RNTCP, constituted in 2018; Member, National Technical Expert Group on Treatment of Paediatric Tuberculosis under RNTCP, constituted in 2018; Member, National Technical Working Group on TB Co-morbidities, constituted in 2019; Member, Technical Specifications Committee for RNTCP; Member ‘STOP TB New Diagnostics Working Group’, WHO since 2009; Expert in ‘Expert Committee for finalizing validation protocols for Indian Indigenous Technologies’, ICMR since 2014; India TB Research Consortium, ICMR, Member on Diagnostic, Therapeutic, Vaccine and Implementation Research Groups; Member, State TB Task Force and or Committee; Expert member on International SAG Committee of India TB Research Consortium, ICMR since 2016; Judge-First Annual AIIMS Research Day, 26 March 2019, New Delhi; Reviewer: Emerging Infectious Diseases, Medical Microbiology, Microbes and Infection, Epidemiology and Infection, PLOS One, Journal of Biosciences, Indian J Med Research, Indian J Tuberculosis.

Dr Sarita Mohapatra conducted workshop under Swacchata Action Plan: “Antibiotic Awareness Week” from 12 to 15 November 2018 at Neurosciences Center, AIIMS, New Delhi; Conducted Nukkad Natak, Knowledge Attitude Surveillance on Antibiotic Awareness in the community from 12 to 15 November 2018 as a part of “Antibiotic Awareness Week” celebration.

Dr Hitender Gautam was member of Public Health Teams (Microbiologist) in flood affected district (Pathanamthitta) of Kerala from 1 to 15 September 2018 at AIIMS, New Delhi and Ministry of Health and Family Welfare, Government of India for outbreak management; Co-Guide for PhD in Medicine by Research Medical Microbiology Programme at Texila American University; Management of Bio-Medical Waste and KAYA KALP rounds for Department of Microbiology; Nominated faculty from Department of Microbiology, AIIMS, New Delhi as a committee member for CSSD at 12 New AIIMS and Government Medical College under Pradhan Mantri Swastya Suraksha Yojana Phase IV and V; Technical Expert for procurement of PPE kits and Body bags for Nipah virus disease management, DGHS, MOHFW, Government of India, May 2018; Co-Organized Institute Day for Department of Microbiology at 63rd AIIMS Institute Day 2018; Committee Member for Technical Specification/Evaluation Committee of AIIMS, New Delhi for Disinfectant chemicals;

Professor Urvashi B Singh was Co-Chair Person, National Technical Expert Group on Diagnosis of Tuberculosis under RNTCP, constituted in 2018; Member, National Technical Working Group on LTBI Management in India, constituted in 2018; Member, National Technical Expert Group on Treatment of Tuberculosis under RNTCP, constituted in 2018; Member, National Technical Expert Group on Treatment of Paediatric Tuberculosis under RNTCP, constituted in 2018; Member, National Technical Working Group on TB Co-morbidities, constituted in 2019; Member, Technical Specifications Committee for RNTCP; Member ‘STOP TB New Diagnostics Working Group’, WHO since 2009; Expert in ‘Expert Committee for finalizing validation protocols for Indian Indigenous Technologies’, ICMR since 2014; India TB Research Consortium, ICMR, Member on Diagnostic, Therapeutic, Vaccine and Implementation Research Groups; Member, State TB Task Force and or Committee; Expert member on International SAG Committee of India TB Research Consortium, ICMR since 2016; Judge-First Annual AIIMS Research Day, 26 March 2019, New Delhi; Reviewer: Emerging Infectious Diseases, Medical Microbiology, Microbes and Infection, Epidemiology and Infection, PLOS One, Journal of Biosciences, Indian J Med Research, Indian J Tuberculosis.

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Member Secretary: Infection Control Committee in Dr BRA IRCH, AIIMS, New Delhi; As a Hospital Infection Control Officer, Dr BRA IRCH, AIIMS, New Delhi, initiated automated blood culture in IRCH, AIIMS, New Delhi; As Hospital Infection Control Officer, IRCH, Member of Internal Assessment Committee for Dr BRA IRCH for Swachhata Awards as a part of celebration of Rashtriya Swachhta Divas on 2 October 2018.

Dr Nishant Verma was expert committee member for upgraded Department of Parasitic Diseases (DPD) at NCDC, Delhi; Member, Panel meeting for formulation of Indian Standard for malaria rapid diagnostic Kits at Manak Bhawan, BIS HQ; External examiner (Theory, oral and practical) for MBBS II (Annual) examination, Microbiology, at LHMC, New Delhi; Executive committee member, Indian Association of Tropical Parasitologists; Member, Hospital Infection Society, India; Member, IAMM-Delhi Chapter; Member Secretary, Infection Control Committee at CDER, AIIMS, New Delhi; Nodal officer for departmental annual report; Compilation of Coffee table book for the department; Reviewer, Journal of Hospital Infection, Tropical Parasitology; Judge for posters (Award category) at TROPACON 2018 held at Varanasi (7-9 September 2018).

Dr Nishat Hussain Ahmed was awarded third prize in poster presentation titled ‘Establishment of Multiplex PCR for Detection of Herpes Simplex Viruses Type-1 and Type-2, Cytomegalovirus, Varicella-Zoster Virus and Adenovirus in Ocular Viral Infections’ in National Conference of the Clinical Infectious Diseases Society-2018, held at Christian Medical College, Vellore, Tamil Nadu.

Dr Kiran Bala was member, Indian Association of Medical Microbiologists (Life Membership 3301/19), The Union International union against tuberculosis and lung disease (Membership CU 0783207); Expert member BSL-3, BSL-2 Subcommittee of CCRF core committee at AIIMS, New Delhi 2018; Reviewer, Indian J of Urology, International J of Medicine and Public Health, Medical Mycology, Indian J Med Research, Indian J Tuberculosis, Mycopathologia; Participated in the workshop ‘Writing a research paper’ at CMET, AIIMS, New Delhi from 5-6 April 2018.

VISITING SCIENTISTS

1. Professor Dr Marcio Poças, Laboratory of Gene Regulation and Mutagenesis, Department of Genetics and Morphology, Institute of Biological Sciences, University of Brasilia, Brazil, 17-22 December 2018

2. Dr Gyanu Lamichhane, Associate Professor of Medicine, JHU, USA, Lecture on 14 November 2018 on topic: “Beta-Lactams: Do we know how they work”.

### 9.21. Nephrology

**Professor and Head**
Sanjay Kumar Agarwal

**Professors**
Dipankar Madhusudhan Bhowmik  Sandeep Mahajan

**Associate Professor**
Soumita Kamalkumar Bagchi

**Assistant Professors**
Raj Kumar Yadav  Arun Kumar Subbiah (Contract from 15 February 2018)

HIGHLIGHTS

Department is regularly doing state of art nephrology care including renal transplantation at affordable cost. ABO-incompatible Renal Transplant in the institute during this period are regularly being done. Department is continuing immunosuppressive drug monitoring and monitoring of infection in renal transplant free of charge for all renal transplant patients. In addition, the department is providing haemodialysis to nearly 80 patients per week at very low cost and free for patients below poverty lines. A bio-repository of samples is being run by the department for potential research in renal sciences for patients of primary glomerular disease and chronic kidney disease. Department faculty is in almost all government policy-making bodies related to chronic kidney disease, dialysis and renal transplantation. Dr SK Agarwal is technical advisor to National Organ and Tissue Transplant Organization (NOTTO) and officer in charge of National Organ and Tissue Transplant Registry (NOTTR). Department has also started interventional nephrology programme for vascular access for hemodialysis and peritoneal access for peritoneal dialysis within own department.
EDUCATION

Long-term training
The department runs DM Nephrology, a three-year degree course for post MD (Medicine and Paediatrics) candidates, selected by AIIMS on the basis of merit through all India entrance examination. Along with AIIMS Delhi, department is conducting examination for other AIIMS like institution as per need. Four candidates were admitted to DM nephrology course at AIIMS, New Delhi during this period. Residents from Department of Paediatrics, and Pathology regularly comes for the training courses in Nephropathology. At present the department has three non-academic junior residents for 6 months each.

Short-term training
The department provided short-term training for following:
1. Postgraduates from the Department of Internal Medicine, Geriatric Medicine, Emergency Medicine, Urology, Anaesthesia and Critical Care Medicine and Transfusion Medicine are posted on rotational basis for a variable period of few weeks to few months
2. Ms Jyoti Pant, BSC Dialysis student from Jamia Hamdard University, New Delhi came for training from 25 July to 24 September 2018
3. Dr Sanjay Vikrant, Professor and Head of Nephrology, Indira Gandhi Medical College, Shimla had short-term training in nephrology between 22 and 31 March 2019

CME/Workshops/Symposia/National and International Conference Organised by Department
1. “World Kidney Day-2019”, Public Lecture on 13 March 2019 and public awareness regarding kidney diseases was organized in collaboration with RML Hospital, at AIIMS and RML Hospital and ESI Hospital, New Delhi on 13 and 14 March 2019

Lectures delivered
SK Agarwal
1. Role of NOTTO, SOTTO and ROTTO in Deceased Donor Transplant in India, Indian Society of Organ Transplant (ISOT) Mid-term meeting, 13-14 April 2018, Chandigarh
2. Basic of CKD and Kidney Transplantation, Transplant coordinator course organized by NOTTO, 24-28 April 2018, New Delhi
3. Antibody Mediated Rejection, 11th Annual Conference of Nephrology, Urology and Transplantation Society of SAARC countries, 27-28 April 2018, Kathmandu
4. Treatment of HCV in ESRD and after Renal Transplant, North East Nephrology Conference (NENCON-2018), 16-17 June 2018, Guwahati
5. Deceased Organ Donation: Understanding the basics on occasion of Organ Donation week on 13 August 2018, Organ Donation Day of MOHFW and Directorate General Health Services in Nirman Bhawan, 13 August 2018, New Delhi
6. Different Transplant Policy in Different States in spite of same law of land: Good or Bad, Annual conference of Indian Society of Organ Transplant, 4-7 October 2018, Hyderabad
7. Deceased donor transplantation: Understanding the basics, Safdarjung Hospital Medicine Invited Talk, 12 October 2018, New Delhi
8. Liver biopsy in chronic kidney disease, INASL and Indian Society of Nephrology combined meeting, 20-21 October 2018, New Delhi
9. CMV Infection in RT: Indian Perspective, Bangladesh Renal Association Conference 2018, 17-18 November 2018, Dhaka
11. Issues in deceased donor programme, 9th Indian Organ Donation Day, 27 November 2018, New Delhi

Dipankar Bhowmik
1. How to manage rejections with infections, ISOT Midterm Meeting, 14 April 2018, Chandigarh
2. Nutritional and pharmacological strategies for preserving residual renal function, Advance Course in Renal Nutrition and Metabolism, 19-20 May 2018, Lucknow
3. Which organ donors are unacceptable—Case Based, Solid Organ Transplant Infections, 29 July 2018, Mumbai
4. HCV Treatment—Before or after? Nephron Conclave, 11 August 2018, Goa
5. Post transplant infection management in deceased donors, Symposium on deceased donors-ROTTO East Zone, 8 December 2018, Kolkata
6. Renal Lesions in cancer, 49th ISNCON, 22 December 2018, Bhubaneswar
7. Role of plasmapheresis in renal vasculitis, NEPH-IMMUNE 2019, 3 February 2019, Delhi
8. Continuous Renal Replacement Therapy and Concept of Artificial Kidney, Nursing Update, 14 March 2019, Delhi
9. Legal Requirements in Renal Transplantation for donor and recipient, National Seminar on World Kidney Day, 16 March 2019, Bhubaneswar

**Sandeep Mahajan**
1. Impact of functioning AV fistula in renal graft perfusion, AVATAR 2018, 19 July 2018, New Delhi
3. APD: Patient selection, deciding on the initial prescription and prescription management based on patient characteristics, PDSICON 18, 8 September 2018, Aurangabad
4. Deceased donor allocation criteria: Time for consensus, ISOTCON 2018, 6 October 2018, Hyderabad
5. Oral hypoglycaemic drugs in CKD, Medicine Update, 1 December 2018, Delhi
6. Management of culture negative peritonitis, 2nd J&K Medical Science Congress and 1st Annual Conference of Metabolic Syndrome, 20 December 2018, Bhubaneswar
7. Outcomes of ABOi Transplant, ABO Incompatible Conclave, 12 January 2019, Ahmedabad

**Soumita Bagchi**
1. Rituximab in nephrology, Delhi Nephrology Society-Annual Update-2019, 8 April 2018, Delhi
2. Recurrent diarrhea in a renal transplant recipient, Transplant Update on Infectious Diseases, 18 November 2018, Delhi
3. Dilemma in diagnosing active lupus nephritis, Lupus and Glomerulonephritis Update, 22 February 2019, Chandigarh

**RK Yadav**
1. Principles of handling psychiatric comorbidities in Nephrology, Principles of handling psychiatric comorbidities in non-communicable diseases, 9 April 2018, New Delhi
2. Recent Update on Nephrology, New Generation Calcium channel Blockers (CCB), 25 May 2018, Kathmandu, Nepal
3. Tropical nephrology—An overview, CHETMEDICON 2018, 18 August 2018, Chennai
4. Hemodialysis Machine and safety Alarms, National Seminar on Kidney Diseases, 11 November 2018, Lucknow
5. Prevention of CKD, WKD-2019, VMMC and Safdarjung Hospital, 14 March 2019, New Delhi

**Arunkumar S**
1. What is new in Anemia in CKD, Delhi Nephrology Society Annual Update 2018, 8 April 2018, New Delhi
2. Software applications for CKD patients, Nursing and Healthcare Innovations: Sharing the Learning, 14 March 2019, New Delhi
3. Role of the kidney in homeostasis, World Kidney Day Symposium, 14 March 2019, New Delhi

**Oral papers/posters presented**

RESEARCH

Funded Projects

Ongoing
1. Multicentric study to find out prevalence of chronic kidney disease in adults in urban Indian population, SK Agarwal, ICMR, New Delhi, 6 years, 2012-2018, Rs 90 lakhs
2. Prospective cohort study to find Circulating Levels of Anti Phospholipase A2 receptor (PLA2R) Antibodies and its Correlation with Idiopathic Membranous Nephropathy (IMGN), SK Agarwal, ICMR, New Delhi, 3 years, 2017-2020, Rs 31 lakhs
3. Prevalence and significance of serum galactose deficient IgA1 in Indian patients with IgA nephropathy: A case control study, Soumita Bagchi, AIIMS, 1 year, 2017-2018, Rs 5 lakhs
4. Pattern of CYP3A5 and MDR-1 single nucleotide polymorphism and its Impact on Individualization of Tacrolimus based Immunosuppression in Living Renal Allograft Recipient, RK Yadav, AIIMS, 3 years, 2016-2019, Rs 4.05 lakhs
5. A Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicenter Study to Demonstrate the Effects of Sotagliflozin on Cardiovascular and Renal Events in Patients with Type 2 Diabetes, Cardiovascular Risk Factors and Moderately Impaired Renal Function, RK Yadav, Sanofi Pharma, 5 years, 2018-2023, Rs 4.71 lakhs per patient

Completed
1. A dose ranging study to evaluate the role of hydroxychloroquine in preserving the kidney function by slowing down the progression of kidney disease due to Type-II diabetes, SK Agarwal, IPCA Pharmaceutical, 18 months, 2016-2017, Rs 8.5 lakhs
2. Prospective monitoring of BK virus replication in the first year following renal transplantation in Indian patients, Soumita Bagchi, AIIMS, 2 years, 2014-2016, Rs 6.20 lakhs
3. Prevalence and significance of serum galactose deficient IgA1 in Indian patients with IgA nephropathy: A case control study, Soumita Bagchi, AIIMS, 1 year, 2017-2018, Rs 5 lakhs

Departmental projects

Ongoing
1. A cohort study to evaluate the change in exercise tolerance and nutritional status in Chronic Kidney Disease (CKD) patients on hemodialysis before and after renal transplant
2. A cross sectional study to assess the link between fluid overload status and quality of sleep in patients on maintenance haemodialysis at AIIMS, New Delhi
3. Clinicopathological correlation of HBV and HCV infection in patients on renal replacement therapy
4. Correlation of serum Immunoglobulin A/complement factor 3(IgA/C3) with the clinical and histologic severity in patients with IgA nephropathy
5. Designing of rapid and cost-effective Nano-LAMP based detections of BK virus from serum and urine samples of post-renal transplant patients
6. Electrolyte and acid base disturbances in post renal transplant patients: Prospective study
7. Evaluation of changes in measured GFR, Echocardiography, markers of bone mineral metabolism and Carotid Intimal Medial Thickness (CIMT) after renal donation

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8. Study of cognitive function in patients with chronic kidney disease and the effect of renal transplantation
9. Supportive management of IgA nephropathy—A prospective study
10. Three arm randomized comparison of laparoscopic peritoneal dialysis catheter insertion with or without omentectomy versus conventional open peritoneal dialysis catheter insertion in chronic kidney disease stage 5 patients in terms of catheter malfunction and post operative complications
11. To study the demographic and clinical profile of non-proteinuric kidney disease in Type 2 diabetic patients

Completed

1. A study to assess the effect of intradialytic exercises on urea-creatinine clearance and fatigue level of CKD patients undergoing hemodialysis at a tertiary care hospital
2. Assessment of arterial stiffness and autonomic function before and after renal transplantation
3. Long term outcome of renal donors
4. Prospective cohort study of the process and outcome of Chronic Kidney Disease (CKD) care in India
5. Pulmonary infections in renal transplant recipients: Prospective cohort observational study
6. Retrospective study for evaluating the Oxford classification of IgA nephropathy in the Indian population
7. Retrospective study for evaluating the clinical profile and treatment response and outcome of adult patients with primary FSGS
8. Retrospective study for evaluating the profile of biopsy proven kidney disease in elderly patients in India
9. The profile and risk factors of infections requiring hospitalisation in the first year after renal transplantation
10. To delineate the pattern of biopsy proven renal disease in a tertiary care hospital in India
11. To study the outcomes of percutaneous hemodialysis catheters in tertiary care nephrology centre

Collaborative projects

Ongoing

1. A prospective study comparing outcomes and quality of life after Laparoscopic donor nephrectomy versus open donor nephrectomy, Surgery
2. A study to assess the knowledge and quality of life among CAPD patients at AIIMS hospital with a view to develop an information booklet, College of Nursing, AIIMS
3. An immunohistochemical and ultra-structural study of glomerular capillary endothelial injury in cellular rejection, Pathology
4. Antifungal susceptibility testing and genotyping of Cryptococcal isolates from Delhi and other parts of India, Microbiology
5. Detection and genotype distribution of BK polyomavirus in renal transplant recipients, Microbiology (PI)
6. Detection and genotyping of Human Cytomegalovirus from Neonates and Renal Transplant Recipients, Microbiology
7. Development of immunoblot assay for diagnosis of subclinical Cryptococcus, Microbiology
8. Genotypic characterization of Autosomal Dominant Polycystic Kidney Disease (ADPKD) in Indian population: A pilot study, Department of Biochemistry
9. Intravascular fluid guided therapy versus standard fluid therapy in predicted severe acute pancreatitis: A randomized controlled study, Gastroenterology
10. Membranous nephropathy: A study of immunofluorescence, electron microscopy and PLA2R profile with clinical correlation, Pathology (PI)
11. Molecular detection and characterization of Pneumocystis jiroveci in respiratory samples from the patients both immunocompromised as well immunocompetent with suspected interstitial pneumonia and other chronic lung diseases, Microbiology
12. Prevalence of sarcopenia in cirrhosis and its correlation with serum myostatin and myostatin gene expression in muscle biopsy, Department of Gastroenterology
13. Stent vs no stent in ureteroneocystostomy in live related renal transplant: A prospective randomized controlled trial, Department of Surgery
14. Study of muscle enzyme elevation in neurosurgery and its relevance in postop acute kidney injury: A pilot study, Neuroanaesthesia (PI)
15. Study of population genetics of clinical strains of Pneumocystis Jiroveci and its clinico-epidemiological correlation (PhD Microbiology), Microbiology

16. To define intestinal insufficiency in patients with celiac disease, Gastroenterology

17. To study the prevalence of UL 97 Gene Mutation In Ganciclovir Non-Responders vis a vis Responders in Indian Renal Transplant Patients, Lab Medicine

**Completed**

1. Evaluation of Plasma and Urine Neutrophil Gelatinase – Associated Lipocalin (NGAL) as an early marker in predicting Acute Kidney Injury (AKI) in trauma patients in surgical intensive care unit, Anaesthesia

2. Evaluation of the effect of renal transplantation on organochlorine pesticides levels in chronic kidney disease (stage 5D) patients, Lab Medicine

3. Identification of biomarkers that predict response to treatment in lupus nephritis, Medicine

4. Impact of intra-operative determinants on graft outcome following live donor renal transplant, Surgery

5. Long-term outcome of anti-complement factor H antibody associated atypical hemolytic uremic syndrome, Paediatric

6. Post transplant diabetes mellitus—A prospective observational study, Pharmacology

7. To study the effect of handgrip exercise on the outcome of arteriovenous fistula surgery: A randomized controlled trial, Surgery

**PUBLICATIONS**

**Journals: 10**  **Books: 1**

**PATIENT CARE**

In addition to providing general nephrology care for all nephrology related illnesses, department provides state of art renal replacement therapy; hemodialysis, CAPD and renal transplant at very low cost to any patient of end stage renal disease. Swap transplant and ABO incompatible renal transplant is supported by the department. Department also provides immunosuppressive drug monitoring free of cost. During hemodialysis, ultrapure water is provided to machine so that absolutely safe hemodialysis can be provided to patients.

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<td></td>
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<td>CAPD</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>Indoor Related</td>
<td>Kidney Biopsy</td>
<td>690</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Liver Biopsy</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indoor regular admission</td>
<td>1,287</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indoor short admission</td>
<td>3,936</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indoor Death / male</td>
<td>44/17</td>
</tr>
</tbody>
</table>

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| 5 | Day Care Treatment | Pulse Methylprednisolone Tt | 79 |
|   |                   | IV iron Therapy              | 163 |
|   |                   | IV Cyclophosphamide Therapy  | 45  |
|   |                   | Other Miscellaneous Therapies| 3,649 |
| 6 | Renal Transplant  | Evaluation of LRRT           | 475 |
|   |                   | Evaluation of Cadaver recipient | 118 |
|   |                   | Living RT done               | 121 |
|   |                   | Cadaver RT done              | 6   |
| 7 | Renal Lab related | Blood sampling               | 1,421,157 |
|   |                   | Biochemistry (Urea, Cr, Na, K)| 80,553 |
|   |                   | Urine osmolality             | 9   |
|   |                   | 24 hr urine testing          | 17,229 |
|   |                   | Hemogram for RT Patients    | 18,974 |
|   |                   | CO2                          | 23,468 |
|   |                   | Serum iron                   | 8,764 |
|   |                   | TIBC                         | 8,764 |
|   |                   | UIBC                         | 8,764 |
|   |                   | T Saturation                 | 8,764 |
|   |                   | Serum Ferritin               | 2,316 |
|   |                   | NGAL                         | 0   |
|   |                   | Tac Level                    | 4,878 |
|   |                   | Vit-D and PTH                | 185  |
|   |                   | Urine PO4                    | 0   |
| 8 | OPD Related       | Renal clinic new patient     | 10,802 |
|   |                   | Renal clinic old patient     | 43,101 |
|   |                   | Renal clinic Total Patients  | 53,903 |
|   |                   | RTCC New Cases               | 463  |
|   |                   | RTCC Old Cases               | 1,910 |
|   |                   | RT new cases                 | 127  |
|   |                   | RT old cases                 | 10,423 |
|   |                   | RT Clinic Total Patients     | 10,550 |

**AWARDS, HONORS AND SIGNIFICANT EVENTS**

**Professor Sanjay Kumar Agarwal** Chaired Global Burden of Disease: Indian CKD Group (Continuing); Member “Subject Expert Committee” of “Cardio-Renal Division” of Central Drugs Standard Control Organization; Member of South Asian Board of Nephrology, a division of International Society of Nephrology; Invited for electronic media with additional Secretary, MOHFW, Government of India for promotion of National Haemodialysis Programme of Hon’ble Prime Minister; Invited by Director AIIMS Bhopal for establishing the Haemodialysis Set-up at that Institute; Member of the Appellate Committee of National Organ Transplant Programme, Government of India; Member of committee of MOHFW for deciding the fitness of renal transplant patients for the government jobs; Member of expert group for review of draft guidelines for CKD by National Center of Disease Control, Government of India; Editor of Indian J of Nephrology, 2015-continuing; Core group member of National Acute Kidney Injury registry of Indian Society of Nephrology; Invited to be member...
of Technical Expert Committee for National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Disease and Stroke (NPCDCS), August 2017-continuing; Invited as an expert in Medical Technology Assessment Board (MTAB) of Government of India for renal replacement therapy in the country, 2017-continuing; Member of expert committee for making guidelines for National Organ Transplant Programme; Member of expert committee making operational guidelines for continuous ambulatory peritoneal dialysis in India; Elected by the ISN-Advancing Clinical Trial (ACT) as ISN-ACT Committee member for 2016-2018; Member of Board of Study (BOS), Member for Dialysis Management at Taxila American University; Invited to be member of “Expert Group” constituted for Kidney Diseases under Grant-in-aid (GIA) scheme of Inter-Sectoral Convergence and Coordination for Promotion and Guidance on Health Research formed by Department of Health Research, 2018-Continuing; Invited to be editorial board member of European Medical Journal, 2018; Invited to be editorial board member of Archives in Nephrology, 2018; Invited as Chief Guest for the World Kidney Day-2019 function at Safdarjung Hospital, New Delhi on 14 March 2019.

Professor Dipankar Madhusudhan Bhowmik was member of DBT Task-force on Bioengineering; Member of ICMR Ad-hoc Committee in Non-Communicable Diseases; Secretary of Indian Society on Nephrology - Northern Zone; Associate Editor of Indian Journal of Nephrology; Treasurer of Institute Kidney Foundation of Delhi; External expert for faculty selection in: AIIMS Rishikesh, ILBS, New Delhi, IGMER RML Hospital, Rajiv Gandhi Superspecialty Hospital, Tahirpur, Delhi; DM examiner for various national institutes, PGI Chandigarh, SMS Jaipur, IGMC Shimla; External Expert for Store Purchase Committee in IGIMS, Patna; Trustee of Guru Kripa Trust; Appeared in DD National, October 2018 and AIR to increase public awareness on kidney diseases; Member of CSIR selection committee for Pool officers; Member of National Committee List of Essential Medicines (Devices); Organised World Kidney Day celebrations in March 2019 in AIIMS, RML and Safdarjung in association with ISNNZ and IFKD.

Professor Sandeep Mahajan was member of the National PD Guidelines committee (2014-continue); North Zonal Executive of the Peritoneal Dialysis Society of India (2014-continue); Invited to the National Expert Panel of the Certificate Course in Management of Hypertension by Public Health Foundation of India (2016-continue); Member of the Scientific Committee of Indian Society of Nephrology (2016-2018); Chair for the Post Graduate Medical Programme (Nephrology) for the Texila American University (2017-continue); Expert member of the reconstituted Task Force of Metabolic Disorders and Auto-Immune Diseases, by Department of Biotechnology, Ministry of Science and Technology (2017-continue); Member of Committee for roll-out of Peritoneal Dialysis under the National Health Mission (2017-continue); Nominated as Co-chairperson for the Expert Group set up by ICMR, for the preparation of Standard Treatment Workflows (STWs) for Nephrology (2018); Member of the ICMR expert team for the CKD in the Uddanam area of Andhra Pradesh (2018); Nominated as Member of South Asian Guidelines for Travel and endemic infections in solid organ recipients (2019); Member of the Drug Selection Committee of AIIMS (2018); Member of the Committee on Extra Budgetary Resources and Corporate Social Responsibility (2018); Member of the AIIMS Public Awareness Committee (2018); Member of the AIIMS Project Management Committee for New Paid Ward Block (2018); Member of the Committee to Review Plans for Expansion of AIIMS, New Delhi.

Dr Raj Kumar Yadav was awarded National Eco-Friendly Treatment Award on 47th World Environment Day Celebration in National Environment Convention 2018 by confederation of Indian University at New Delhi; Member, Standing National Committee on Medicines for Revision of National List of Essential Medicines (NLEM) Sub-Committee under Department of Health and Family Welfare (Drugs Regulation Section), Ministry of Health and Family Welfare, Government of India; Appointed as Assessor, Revision in process of assessment of Medical Colleges of UG/PG course by Chairman, Board of Governors in super-session of Medical Council of India.

Dr Arunkumar Subbiah was recipient of ISOT (Indian Society of Organ Transplantation) Novartis Transplant Education Grant for 2018.

VISITING SCIENTIST

1. Professor Pravin Singhal, Professor of Medicine and Nephrology, at Long Island Jewish Medical Center, New York visited Department of Nephrology on 8 March 2019 and had interaction with residents and gave a talk on “Focal and Segmental Glomerulosclerosis: Podocytopathy and Molecular Signature”

2. Professor Amit Govil, Professor of Medicine, Chief, Transplant Section, Medical Director, Kidney and Pancreas Transplant Programmes, Director, Transplant Fellowship Programme, Division of Nephrology, Kidney CARE Programme, University of Cincinnati Medical Center 231, Albert Sabin Way, Cincinnati, visited department and spoke on “Current trends of renal transplantation in US” on 27 March 2019.
9.22. Nuclear Magnetic Resonance

Professor and Head
NR Jagannathan

Professors
Rama Jayasundar  S Senthil Kumaran

Associate Professors
Uma Sharma  Virendra Kumar

Scientists
Sujeet Kumar Mewar  Pawan Kumar

HIGHLIGHTS
Professor NR Jagannathan was elected as Fellow of the Indian Science Congress Association (FISC). From 15 August 2018 the timing for patient care clinical MRI services were increased from 7 am to 11 pm from Monday to Saturday and there after 11 pm to 7 am. One MRI scanner is for emergency cases on all days including Sundays and holidays.

EDUCATION
The faculty and scientists participated and delivered lectures for course titled “Course 10: Structural Biology and NMR Technology, Course 11: Bioinformatics” and “Molecular Medicine”, of MBiotech programme of the Department of Biotechnology, AIIMS; MBBS Course Third Semester and MD Physiology course.

Short/Long Term Training
Ten persons from medical and science disciplines from various Institutes and Universities from India and BSc Radiography students, AIIMS, underwent training in MRI, fMRI and MRS techniques.

CMEs/Workshops/Symposia/National and International Conferences
The department organized 4 days National level Conference on Magnetic Resonance in Medicine along with the 25th National Magnetic Resonance Society (NMRS) meeting from 13 February to 17 February 2019. Over 250 scientists and students from all over the country and 20 scientists from USA, UK, Germany, Switzerland, Singapore and other countries participated.

Lectures delivered
NR Jagannathan
1. Basics of MRI, Basic aspects of Magnetic Resonance and its applications, 26 November 2018, Roorkee
2. In-vivo NMR spectroscopy applications, Basic aspects of Magnetic Resonance and its applications, 26 November 2018, Roorkee
3. Study of breast cancer metabolism by MRI and in-vivo MR spectroscopy (Invited talk), 10th Asian Biophysics Association (ABA) Symposium, 5 December 2018, Melbourne, Australia
4. Drug discovery and development: Role of NMR, New Horizons in Drug Discovery and Development (NHD3-3): The Role of NMR, 18 February 2019, New Delhi
5. Role of NMR in medicine (Plenary talk), Emerging Trends in Chemical Sciences, 23 February 2019, Aligarh
6. Basics of magnetic resonance imaging and applications in medicine, Workshop on NMR and its Applications, 11 March 2019, Sagar, MP
7. In vivo magnetic resonance spectroscopy and applications, Workshop on NMR and its Applications, 11 March 2019, Sagar, MP
8. Delivering MR to patients in India’s busiest hospital, International Society for Magnetic Resonance in Medicine (ISMRM) workshop on Accessible MRI for the World, 29 March 2019, New Delhi

Rama Jayasundar
2. MR and Traditional Indian Medicine: Transcending traditional boundaries, Guest Lecture, 24 April 2018, New York
3. MR and Ayurveda: Transcending traditional boundaries, Guest Lecture, 25 April 2018, Little Rock
4. Ayurveda: Antiquated or state of the art? Guest Lecture, 26 April, Little Rock
5. Language-dependent shift in neurochemical asymmetry observed by in vivo proton MRS during vocal meditation, 59th Experimental NMR Conference (ENC), 30 April 2018, Orlando
6. MR based research in Ayurveda, Guest Lecture, 4 May 2018, New York
7. Traditional system of medicine: Ayurveda, 2nd Special Course for Foreign Diplomats, 14 May 2018, New Delhi
8. Ayurveda: Antiquated or state of the art? Public Lecture, 18 May 2018, Nagpur
10. Targeted and untargeted NMR phytometabolomics for polar chemosensory markers and signatures, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 19 June 2018, Paris, France
11. Traditional system of medicine: Ayurveda, 1st Special Course for Foreign Diplomats, 11 July 2018, New Delhi
13. MR and Ayurveda: Transcending traditional boundaries, Guest Lecture, 16 August 2018, Pune
15. Research Methodologies, Orientation Programme for the PG Scholars, 30 August 2018, New Delhi
16. Shifting neurochemical asymmetry: Language dependent changes during vocal meditation observed by in vivo proton MRS, World Molecular Imaging Congress (WMIC-2018), 15 September 2018, Seattle, USA
17. Traditional System of Medicine: Ayurveda, 66th Professional Course for Foreign Diplomats, 26 September 2018, New Delhi
18. Ayurvedic pharmacology, AICTE sponsored 1st Continuing Education Programme, 27 September 2018, New Delhi
19. Basic Research to Translational Research, 23rd Refresher Course in Life Sciences and Biotechnology, 12 October 2018, New Delhi
20. Ancient medical system and Ayurveda and environment protection in ancient India-panelist, Workshop on Ancient Medical System and Ayurveda and Environment Protection in Ancient India, 23 October 2018, New Delhi
22. Traditional system of medicine: Ayurveda, 1st Special Course for Tunisian Diplomats on Ayurveda, 9 November 2018, New Delhi
23. Research methodologies for translation research, DHR Winter School on Traditional Medicine and Integrative Health, 12 December 2018, Pune
24. MR based research work in Ayurveda, DHR Winter School on Traditional Medicine and Integrative Health, 13 December 2018, Pune
27. MR based research work on traditional medicine, Plenary Lecture, 1st International Conference on Integrating Traditional Indian Healing Practices with Contemporary Western Health System, 9 January 2019, New Delhi
28. Innovative use of NMR, MRI and MRS in traditional systems of medicine in like Ayurveda, Guest lecture, 4-5 February 2019, Pune
30. NMR metabolomics, Workshop on NMR as a tool for fingerprinting materials, 20 February 2019, New Delhi
31. Innovative applications of NMR, MRI and MRS in Ayurveda, Lead Lecture, 13th Uttarakhand State Science and Technology Congress, 27 February 2019, Dehradun
32. Traditional system of medicine: Ayurveda, 67th Professional Course for Diplomats, 22 March 2019, New Delhi
Uma Sharma

1. Diagnosis of breast cancer, MedImg: 4th annual workshop on medical imaging techniques, post-processing and clinical applications, 15 April 2018, New Delhi

Virendra Kumar

1. Magnetic resonance spectroscopic imaging (MRSI) acquisition and analysis, Workshop on Medical Imaging Techniques, Post-processing and Clinical Applications, 16 April 2018, New Delhi
2. Added value of magnetic resonance spectroscopic imaging to multiparametric MRI for detection of prostate cancer using PIRADS version 2, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in medicine and Biology (ESMRMB), 20 June 2018, Paris, France

Oral papers/posters presented

1. Ankeeta, Kumaran S, Saxena R, Jagannathan NR, Neuro-anatomical changes in the early blind, late blind during critical developmental time: Voxel Based Morphometry study, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France
6. Chaudhary K, Kumaran SS, Chandra SP, Wadhawan AN, Tripathi M, Semantic verbal memory outcome in TLE and ETLE patients after surgery using fMRI, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France
9. Gudwani S, Kumaran S, Behari M, Clinical diagnosis based on speech mechanics with dynamic (real time) MRI, functional MRI and acoustics of speech (spectrogram), Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France


17. Jayasundar R, Language-dependent shift in neurochemical asymmetry observed by in vivo proton MRS during vocal meditation, 59th Experimental NMR Conference (ENC), 30 April 2018, Orlando, USA

18. Jayasundar R, MR based research work on traditional medicine, 1st International Conference on Integrating Traditional Indian Healing Practices with Contemporary Western Health System, 9 January 2019, New Delhi


24. Jayasundar R, Shifting neurochemical asymmetry: Language dependent changes during vocal meditation observed by in vivo proton MRS, World Molecular Imaging Society (WMIS), USA, 15 September 2018, Seattle, USA

25. Jayasundar R, Singh A, Kumar D, Non-polar phytometabolites as chemosensory markers by NMR metabolomics, 59th Experimental NMR Conference (ENC), 29 April 2018, Orlando, USA


35. Kumar V, Lanka V, Sharma S, Nayyar R, Das CJ, Added value of magnetic resonance spectroscopic imaging to multiparametric MRI for detection of prostate cancer using PIRADS version 2, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France

36. Kumar S, Kumar S, Goyal V, Dwivedi SN, Srivastava A, Jagannathan NR, 1H NMR based metabolomic study on an experimental model of Parkinson’s Disease induced by 6-hydroxydopamine (6-OHDA), Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France


41. Singh A, Kumar D, Jayasundar R, Targeted and untargeted NMR phytometabolomics for polar chemosensory markers and signatures, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in medicine and Biology (ESMRMB), 19 June 2018, Paris, France


RESEARCH

Funded projects

Ongoing

1. Funds for improvement of S&T infrastructure in Universities and Higher Educational Institutions (FIST), NR Jagannathan, DST, 5 years, 2014-2019, Rs 147 lakhs


3. NMR phytometabolomics and studies of chemosensory signature to address the fundamental question of ‘rasa’ in ayurvedic pharmacology, Rama Jayasundar, Science and Engineering Research Board (SERB), DST, 3 years, 2017-2020, Rs 74.76 lakhs

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5. Elucidating the science of yoga as a therapeutic intervention in post stroke recovery study of brain using the technique of Magnetic Resonance, Rama Jayasundar, Science and Engineering Research Board (SERB), DST, 2 years, 2017-2019, Rs 43.23 lakhs

6. Effects of environment and occupational noise on cognition, S Senthil Kumaran, LSRB, DRDO, 3 years, 2017-2020, Rs 59.25 lakhs

7. Morphological and Neurobiological Changes in Spinocerebellar Ataxia Affected Patients (SCA) through MRI Techniques Using Computer Vision Based Analysis, S Senthil Kumaran, SERB, 2 years, 2019-2021, Rs 21.01 lakhs

Completed

1. Morphological, functional, biochemical and behavioural evaluation post-EMF radiation (electromagnetic radiation from mobile handsets), S Senthil Kumaran, SERB, 3.5 years, 2015-2018, Rs 52.57 lakhs

Departmental projects

Ongoing

1. Evaluation of dihydromyricetin in experimental model of stroke and post stroke seizure susceptibility in rats
2. Evaluation of Fumaric Acid Esters (FAEs) in experimental model of stroke in rats
3. Identification of biomarkers in Parkinson’s Disease using NMR Technique
4. In-bore MR guided targeted prostate biopsy in patients suffering from prostate cancer
5. Magnetic Resonance (MR) multi-parametric approach to the study of breast cancer and its correlation with molecular markers
6. Mapping functional and biochemical correlates in brain of Parkinson’s patients with Mild Cognitive Impairment
7. Metabolomic profile of healthy neonates
8. Metabolomics of patients with gluten ataxia
9. Metabolomics study of celiac disease by NMR spectroscopy
10. Molecular and biochemical characterization of hepatic glycogenoses type I and III
11. MRI and MRS of prostate cancer
12. NMR metabolomics and pharmacological assays for functional signatures of medicinal plants used Ayurveda
13. NMR metabolomics study blood and urine in prostate cancer patients
14. NMR phytometabolomics for chemosensory and pharmacological evaluation for functional signatures of select medicinal plants
15. Role of Magnetic Resonance in assessing therapeutic efficacy of Ayurveda interventions in stroke patients
16. Role of Magnetic Resonance in assessing therapeutic efficacy of Yoga interventions in stroke patients

Completed

1. Neuroprotective study of lercanidipine and citalopram in experimental model of stroke in rats
2. NMR phytometabolomics and analysis of chemosensory signatures of select ayurvedic medicinal plants

Collaborative projects

Ongoing

1. Abnormalities in brain neurochemistry assessed by magnetic resonance spectroscopy in unmedicated obsessive compulsive disorder patients and changes after 12 weeks of escitalopram treatment, Psychiatry
2. A comparative study of neurochemical alteration on 1 h MRS in schizophrenia, obsessive compulsive disorder and schizophrenia with obsessive compulsive symptoms, Psychiatry
3. A morphological and functional study on intracerebroventricular streptozotocin induced rat model of Alzheimer’s Disease: Effect of magnetic field stimulation, Physiology
4. Assessment of Gray Matter Volume and White Matter Integrity in patients with suicidality in Bipolar Disorder type I, Psychiatry
5. Comparing the efficacy of virtual reality therapy with modified constraint induced movement therapy versus modified constraint induced movement therapy alone for children with hemiparetic cerebral palsy aged >5-18 years—An open labeled randomized controlled, parallel design, superiority trial, Paediatric Neurology
6. Cortical reorganization in complete spinal cord injured rats: Effect of superparamagnetic nanoparticles and low intensity magnetic field exposure, Physiology
7. Effect of angiotensin receptor modulation in rat middle cerebral artery occlusion: A morphological and biochemical study, Anatomy
8. Effect of cognitive and emotional stress in patients with multisomatoform pain disorder: An fMRI based case control study, Psychiatry
9. Elucidating the pathobiology of classical ayurvedic interventions in post stroke recovery using Magnetic Resonance and other technique based structural, functional and chemical, biomarkers, Neurology and Neuroradiology
10. Elucidating the science of Yoga as a therapeutic intervention in post stroke recovery study of brain using the technique of Magnetic Resonance, Neurology and Neuroradiology
11. Evaluation of dihydromyricetin in experimental model of stroke and post stroke seizure susceptibility in rats, Pharmacology
12. HIV associated neurocognitive decline and brain metabolism, Medicine
13. Neurocognitive correlates of emotion and cognition among Yoga practitioners, physically active and sedentary lifestyle individuals: An fMRI and neuropsychological study, CIMR
14. Neuroprotective study of nano carrier based Berberine chloride in middle cerebtal artery occlusion model of transient focal cerebral ischemia in rats, Pharmacology
15. NMR phytometabolomics and studies of chemosensory signature to address the fundamental question of ‘rasa’ in ayurvedic pharmacology, Ocular Pharmacology and Pharmacy
16. Role of advanced ultrasound and advanced MRI in evaluation of prostate cancer, Radiodiagnosis
17. Role of mediodorsal thalamic nuclei in sleep, Physiology
18. Role of multiparametric MRI in detection and localization of prostate cancer, Centre for Biomedical Engineering, IIT-Delhi
19. Small molecule Bio-signatures in Diagnosis of Tuberculosis, Microbiology, AIIMS
20. Spectroscopic analysis of medicinal plants for standardization and quality assessment, Ocular Pharmacology and Pharmacy
21. Studies on anti-HIV medicinal plants, Biochemistry
22. The effect of prosthodontic rehabilitation of completely edentulous geriatric patients with mild cognitive impairment on their memory process—A functional MRI based study, Prosthodontics, Centre for Dental Education and Research

Completed

1. Functional imaging of olfactory dysfunction in Parkinson’s Disease—A pilot study, Neurology
2. Measuring organ cross talk in Acute-on Chronic Liver Failure (ACLF) through metabolomics: A pilot study, Biochemistry
3. Neuroimaging and cerebral metabolite changes in children undergoing treatment for acute lymphoblastic leukemia: A pilot study, Paediatrics
4. Understanding movement execution and its cognitive processing in Parkinson’s Disease—A pilot study, Department of Neurology, LHMC, New Delhi

PUBLICATIONS
Journals: 9

PATIENT CARE
The department has three whole body MRI scanners (one 1.5 Tesla and two 3.0 Tesla scanners) for patient care and research. The department provides the Clinical MRI facility, and the time is divided between the three user-departments namely, Radio Diagnosis, Neuro Radiology and Cardiac Radiology. The MRI timings are from 7.00 am to 11.30 pm from
Monday to Saturday and thereafter one MRI scanner for emergency cases round the clock including Sunday and holidays. A total of 8,102 MRI/MRS/fMRI scans were performed from April 2018 to March 2019.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor NR Jagannathan was elected as Fellow of the Indian Science Congress Association (FISC) in 2019; Chairperson, SERB Internal Committee on Scientific Ethics and Plagiarism (ICSEP), SERB, DST, Government of India; Co-Chair, Scientific Advisory Group—Devices and Diagnostics, National Bio-pharma Mission (NBPM), Biotechnology Industry Research Assistance Council (BIRAC), Government of India; Member, Governing Council, Centre for Co-operation in Science and Technology among Developing Societies, (CCSTDS) under INSA, Chennai; Currently, Vice-President of Indian National Science Academy (INSA); Council Member, Indian Science Congress Association; Chairperson, INSA Committee for International Union of Pure and Applied Biophysics (IUPAB); JC Bose National Fellowship of Department of Science and Technology, Government of India; Member, Facility Management Committee (FMC), Sophisticated Analytical Instruments Facility, Indian Institute of Science, Bangalore; Chairperson of National Steering Committee (NSC) for “Indigenous Magnetic Resonance Imaging (IMRI)—A National Mission”, Department of Electronics and Information Technology, Ministry of Communication and Information Technology, Government of India; Member of Science Advisory Committee (SAC), Center of Biomedical Research (CBMR), SGPGI Campus, Lucknow; Member of Fund for Improvement of S&T Infrastructure in Higher Educational Institutions (FIST) of the Department of Science and Technology ( DST), Government of India; Chairperson of IIPME of the Medical Electronics Evaluation and Advisory Group (MEAG), BIRAC, Government of India; Continues to be a member of the editorial board of the following international journals: (a) “MAGMA” (Magnetic Resonance Materials in Physics, Biology and Medicine), (Springer); (b) “Magnetic Resonance Insights” (Libertas Academica, USA); (c) Deputy Editor of “Neuroscience Imaging”; (d) “NMR Biomedicine (John Wiley & Sons); (e) “Magnetic Resonance Imaging” (Elsevier); (f) “Biomedical Spectroscopy and Imaging” (IOC Press, Netherlands); (g) Dy. Editor of “Biophysical Reviews” (Springer He continues to be a member of the steering committee of Asian Biophysics Association (ABA); Co-chair of the expert panel on “Biomedical Devices and Bioengineering”, Life Sciences Research Board, DRDO; Member, Scientific Advisory Committee, Biosciences and Bioengineering Group, IIT Indore; Member, Science Advisory Council, National Brain Research Center (NBRC), Manesar, Haryana; Fellow of Indian Academy of Sciences (FASc), Bangalore; Fellow of National Academy of Sciences (FNASc), Allahabad; Fellow of National Medical Academy of Sciences (FAMS), Delhi; Fellow of International Society for Magnetic Resonance in Medicine (ISMRM), USA and Fellow (FNA) of the Indian National Science Academy (INSA).

Professor Rama Jayasundar was interviewed by Australian Radio about the MRI studies on the effect of Sanskrit carried out by an American neuroscientist; Invited as a Chief Guest and Guest of honour in five scientific meetings and conferences; Invited lectures in International Universities—Department of Radiology, Stony Brook Medicine (USA), University of Arkansas at Little Rock (USA), Fordham University (USA), Department of MR, Institute of Neuroscience and Medicine, Julich (Germany); Member of Advisory Committee of CSIR-Traditional Knowledge Digital Library (CSIR-TKDL); Council of Scientific and Industrial Research, New Delhi for three years from November 2018; Member of the Scientific Advisory Committee, Centre of Excellence, Interdisciplinary School of Health Sciences, Savitribhai Phule Pune University 3 years till 2021; Nominated by Hon’ble President of India as a member of the Executive Council of Delhi University for a period of three years from March 2019; Nominated by Hon’ble President of India as a Visitor’s nominee for Indian Institute of Technology (IIT), Mumbai for a period of three years from November 2018; Nominated by Ministry of Human Resource Development (MHRD), Government of India for the Board of Governors of Indian Institute of Science Education and Research (IISER), Kolkata for a period of three years till 2020; Nominated by Ministry of Human Resource Development (MHRD), Government of India has nominated as a Council’s Nominee on the selection committee for appointment of Professors in the Indian Institute of Science Education and Research (IISER), Mohali till 2020.

Dr Uma Sharma was distinguished reviewer for Journal of Magnetic Resonance Imaging 2018.

HIGHLIGHTS

The Department of Nuclear Medicine (Main) is equipped with three SPECT/CTs, two dual head and one single head gamma cameras, an uptake probe with well-counter, invitro lab and a well-equipped Radiopharmacy Laboratory. There are two PET/CT scanners with a functioning 11 MeV Cylotron and hot lab to synthesize all PET radiopharmaceuticals. We are proud to mention here that department is currently doing 12 different types of PET scans compared to any best institutes in the world. The waiting list for various investigations is ever increasing in institute, due to dependence on diagnostic modalities to diagnose complex medical problems by the clinicians. In spite of huge initiative to reduce the waiting list of all investigations, department cannot accommodate all in short notice due to severe shortage of space. The department is running a daily OPD for Radionuclide therapy and all 5 consultants in the department run the OPDs. This year we replaced a single head gamma camera by dual head SPECT camera and another old single head gamma camera is replaced by new single head gamma camera.

In spite of space crunch there is phenomenal increase in the number of scans and radionuclide therapies performed this year. All investigations in Nuclear Medicine at AIIMS are done at very nominal charges. Thus, the poor and middle-class patients greatly benefit since these investigations are available at very few centers across the country and that too at high cost. Currently the department has 8 DM students, 20 MD students, 20 MSc students and 2 PhD students. They are actively involved in daily academic activities as well as research work.

Nuclear Medicine in Cardiothoracic Centre (CTC) routinely performs diagnostic nuclear cardiological procedures. Nuclear Medicine postgraduate and Nuclear Medicine technology students are trained on rotational basis in nuclear cardiology procedures. The unit is involved in international multi-center research project.

EDUCATION

The faculty of the department participated in and delivered 41 lectures in continuing medical education programme, workshop, Symposia and annual conference during the year 2017-2018.

CMEs, National and International Conferences

Lectures delivered

CS Bal

1. Initial experience of patients treated with Lu-177 PSMA617 for advanced prostate cancer—Safety, efficacy and quality of life, 12th Congress of the World Federation of Nuclear Medicine and Biology, 20-24 April 2018, Melbourne, Australia
2. How do we implement multicentric RCT in India-Challenges and future, 16th Annual Conference of ANMPI, 22-23 September 2018, Cochin
3. Multimodality management of undifferentiated thyroid cancer, 16th Annual Conference of ANMPI, 22-23 September 2018, Cochin
4. Surveillance and management of persistent and recurrent thyroid cancers, 3rd National meeting of the Indian Society of Thyroid Surgeons, 24-26 August 2018, Tata Memorial Hospital, Mumbai
5. Theranostics in endocrinology, 48th Annual Conference of Endocrine Society of India, 15-18 November 2018, Bhubaneswar, Odisha
6. Prostate theranostics: Yesterday’s palliation is tomorrow’s cure, 50th Annual Conference of Society of Nuclear
7. Diagnosis and management of Thyroxine Refractory-hypothyroidism, IGCAD Metabolic Conclave, 16 March 2019, Dubai, United Arab Emeritus
8. Introduction to Nuclear Oncology, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
9. PET skeletal imaging, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
10. Read with the expert: Typical and rare cases in paediatric oncology, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
11. 18FDG PET/CT in head and neck oncology, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
12. 18FDG PET/CT in lung oncology, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
13. Planar, SPECT/CT and PET/CT in thyroid and parathyroid imaging, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
14. Management of differentiated thyroid cancer (Recent update), Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
15. 18FDG in the management of lymphoma, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
16. Management of metastatic castration resistant prostate cancer-68Ga-PSMA, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
17. Imaging and 177Lu-PSMA therapy, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh

Rakesh Kumar
1. PET/CT in Lung Cancer, Pulmocrit-2018, 1 April 2018, AIIMS, New Delhi
2. PET/CT in brain tumours, Nuclear Medicine Symposium, 7 and 8 April 2018, AIIMS, Rishikesh
3. PET/CT and SPECT/CT imaging in Dementia, World Federation of Nuclear Medicine and Biology, 20-24 April 2018, Melbourne, Australia
4. PET/CT in lung cancer—Panel discussion, Lung Cancer Update, AIIMS-NCI, Jhajjar
5. Imaging in chest infections, 4-5 August 2018, AIIMS, New Delhi
6. PET and SPECT imaging in epilepsy, Neuropedicon, 8-9 September 2018
7. PET/CT advances in breast cancer, ABSOCON, 9-11 October 2018, AIIMS, Delhi
8. PET/CT in breast cancer, BISICON, 16-18 November 2018, AIIMS, Patna
9. Mediastinal staging PET vs EBUS, 2nd Annual Conference: Lung Cancer, December 2018, AIIMS, Delhi
10. Imaging of lymphoma, hematology and radiation therapy, 15 December 2018, Delhi
11. Nuclear medicine imaging in Paediatric Surgery, Paediatric Surgery Update, 22-25 March 2019, MAMC, Delhi

Chetan D Patel
1. Cardio-Oncology, Nuclear medicine option, Consultant Meeting on Cardio-Oncology, 23-27 July 2018, IAEA, Vienna, Austria
2. Nuclear medicine in evaluation of cardiac sympathetic innervation, 16th Annual Conference of Association of Nuclear Medicine Physicians of India, 22-23 September 2018, Kochi, Kerala
3. Panel discussion on Nuclear Cardiology, 50th Annual Conference of Society Nuclear Medicine, 22-25 November 2018, PGIMER, Chandigarh
4. Clinical application of nuclear imaging in CAD, 2nd World Congress on Cardiac Imaging and Clinical Cardiology, 22-24 February 2019, Sahar, Mumbai

Anil K Pandey
1. Interaction of radiation with matter, Basic Nuclear Medicine Physics and Radiation Safety, 28-29 July 2018, AIIMS, New Delhi
2. Radiation hazard evaluation and control, Basic Nuclear Medicine Physics and Radiation Safety, 28-29 July 2018, AIIMS, New Delhi
4. Texture analysis a way extracting more information from PET/CT images, 50th Annual Conference of Society of Nuclear Medicine, India, SNMICON 2018, 22-25 November 2018, PGIMER, Chandigarh
5. Emergency response plan and preparedness, Seminar on Radiation Safety Updates, 23 February 2019, AIIMS, Bhubaneswar
6. Radiation detection and measurement, Seminar on Radiation Safety Updates, 23 February 2019, AIIMS, Bhubaneswar

Madhavi Tripathi
1. Nuclear medicine in Neurology and Neurosurgery, 25th UP-UK Neurocon, Organised by Cawnpore Neurological Society, 3 February 2019, Kanpur, UP
2. Radiopharmaceuticals in Paediatric Nephro-urology, Paediatric Nephrology Urology CME, 9 December 2018, MAMC, New Delhi
4. PET and SPECT in Epilepsy—What the clinician wants, 15th National EEG workshop and Masterclass for Epilepsy Surgery, 21 November 2018, BHU, Varanasi
5. PET and SPECT in DRE, 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association, 8 March 2019, AIIMS, New Delhi

Shamim A Shamim
1. Role of nuclear imaging in multiple bone lesions in elderly, GOSICON-FFN-CCA 2018, September 2018
2. Should PET-CT replace all others in staging of breast cancer, 2nd Asian Society of Mastology (ASOMA) Congress, October 2018
3. Choosing between PET CT and contrast enhanced CT, Chaturtha Conference CRAB-E-CON 2018, October 2018
4. Adrenal and pancreas, ENDOSURG 2019, March 2019
5. Procedural Guidelines for Diuresis Renography in Infants and Children, Radionucleotides in Paediatric Nephrology and Urology CME, Department of Paediatric Surgery, MAMC, December 2018, New Delhi

Oral papers/poster presented
1. Dheer P, Gupta P, Taywade S, Passah A, Pandey AK, Patel C, Ordered subset expectation maximization parameters for image reconstruction in Tc99mMIBI myocardial perfusion single photon emission computed tomography in Indian population, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh
5. Goyal H, Tripathi M, Goyal V, Patel CD, Kumar P, Bal CS, Semiquantitative analysis of 18F-FDOPA brain PET-CT in Idiopathic Parkinson Disease patients in correlation with clinical rating scale and in tremor predominant subgroup, 31st Annual Congress of the European Association of Nuclear Medicine, 13-17 October 2018, Düsseldorf, Germany
7. Pandey AK, Lal S, Sharma A, Kumar R, Patel C, Bal CS, Optimization of number of principal components to be used for reconstructing 99mTc-MDP bone scan for reporting purpose, 50th Annual Conference of society of Nuclear Medicine, India, SNMICON 2018, 22-25 November 2018, PGIMER, Chandigarh
8. Patel CD, Goyal H, Goyal V, Gupta P, Bal CS, Tripathi M, Evaluation of myocardial sympathetic denervation in advanced Parkinson Disease patients with autonomic dysfunction using 18F-FDOPA PET-CT, 31st Annual Congress of the European Association of Nuclear Medicine, 13-17 October 2018, Düsseldorf, Germany


RESEARCH

Funded projects

Ongoing

1. Dosimetry of 177lu-Labelled PSMA-617 in Castration Resistant Prostate Cancer Patients, Bal CS, ICMR, 3 years, 2017-2020

2. Mutation spectrum of BRAF gene among patients with Papillary Thyroid Carcinoma: A pathogenetic study in Indian population, Bal CS, ICMR, 3 years, 2018-2021

3. Prospective single arm post marketing phase IV study to assess the safety and efficacy of lenvatinib in subjects with locally recurrent or metastatic, progressive, radioiodine refractory differentiated thyroid cancer, Bal CS, Phase IV FDA Trial, Ciantha Research Ltd

4. Use of PET–CT with Gallium-68 labeled prostate specific membrane antigen in the diagnosis and follow-up of patients with prostate cancer, Rakesh Kumar, International Atomic Energy Agency (IAEA), Vienna, Austria, 5 years, 2017-2022

Departmental projects

Ongoing

1. A pilot study to assess the therapeutic potential of 177Lu PSMA DFKZ In 68-Gapsma Hbed Cc PET/CT positive anaplastic carcinoma thyroid

2. A prospective study to compare the role of 68-Ga PSMA and 68-Ga-Gul-Nota PSMA in evaluation of prostate cancer

3. A prospective study to determine the efficacy of PET CT scan in detecting residual disease in locally advanced head and neck squamous cell carcinoma managed with primary chemoradiotherapy

4. A prospective study to evaluate in vivo PSMA expression in patients with recurrent anaplastic astrocytoma and glioblastoma multiforme using 68-Ga PSMA PET/CT

5. A retrospective cohort study to analyse the diagnostic accuracy of SISCOS in drug refractory epilepsy

6. Carotid plaque imaging with F-18 flurodeoxy mannose in patients with moderate to severe carotid stenosis

7. Comparison and standardization of techniques for the labelling of 18F FDG leukocytes

8. Comparison between 18-FDG PET/CT and bone marrow biopsy for evaluation of bone marrow metastasis in newly diagnosed patients with Ewing’s sarcoma

9. Comparison of 68-Ga PSMA PET/CT and 18-F Fluoride PET/CT for detection of bone metastasis in high risk prostate cancer patients

10. Comparison of left ventricular ejection fraction (LVEF) derived on ordered subset expectation maximization (OSEM) and filtered back projection (FBP) reconstructed images In Tc99m-Mibi Myocardial Perfusion Spect: Validation with LVEF derived on equilibrium radionuclide angiography (ERNA)
11. Effect of dietary intervention in reducing interfering infra cardiac activity in patients undergoing Te99m Mibi myocardial perfusion SPECT
12. Efficacy of Re-188 Hdd Lipiodol/Re-188 N-Dedc Lipiodol in hepatocellular carcinoma with malignant portal vein thrombosis
13. Estimation of plasma volume deficit by 51Cr labelled RBC in acute pancreatitis patients
14. Evaluation of cardiac sympathetic denervation in advanced idiopathic Parkinson’s Disease by using F-18 F DOPA
15. Evaluation of mild cognitive impairment using F-18 MI-108 Tau PET/CT and F-18 FDG PET/CT
16. Image compression using principal component analysis
17. Image denoising using wavelet transform
18. Image enhancement using stochastic resonance
19. Image segmentation using adaptive thresholding
20. Imaging PSMA expression in metastatic triple negative breast cancer using Ga 68 PSMA PET-CT
21. Interim treatment response evaluation of patient with high grade lymphoma using texture analysis on F-18 FDG PET/CT study
22. In vivo assessment of somatostatin receptor expression with Ga 68 Dotanoc PET CT in patients with autoimmune orbitopathy
23. Normal 18F-FDG database for brain and whole body
24. PET/CT imaging of chloromas in acute myeloid leukemia
25. Prospective evaluation of somatostatin receptor expression in hepatocellular carcinoma and its theranostic feasibility
26. Prospective study to compare the role of 18-F Dopa PET/CT And I-131 MIBG in neuroblastoma
27. Role of 18-F Dopa PET/CT in adult and pediatric patients with insulinoma
28. Role of 18-F Fluorocholine PET/CT in culprit lesions in patients presenting with recurrent/persistent primary hyperparathyroidism
29. Role of 68Ga-PSMA PET/CT imaging in differentiated thyroid cancer patients with negative whole body radioiodine scan
30. Role of diuretic FDG PET/CT in the patient of renal cell carcinoma and correlation PET parameters with histopathological subtype
31. Role of Ga-68 Dotanoc PET/CT in cardiac sarcoidosis: Comparison with cardiac MRI
32. Role of PET/CT in staging and early treatment response evaluation in patients of soft tissue sarcoma
33. Standardization of Ec clearance in normal human subjects and comparison with GFR in vivo by two step method
34. Synthesis, quality control and biodistribution of Tc-99m labelled antibiotics (ethambutol, ciprofloxacin and ceftriaxone)
35. To assess the feasibility of F18 F Dopa in evaluation of the sympathetic deinnervation in heart failure patients, Comparison with C11 Hed

Completed
1. 18FDG PET/CT in the standardization of Paediatric Lymphoma
2. Value of intraventricular synchronism assessment by Gated SPECT myocardial perfusion imaging (MPI) in the management of heart failure patients submitted to cardiac resynchronization therapy

Collaborative projects

Ongoing
1. Comparison of conventional MDP bone scan and somatostatin receptor PET/CT in articular manifestation of rheumatoid arthritis, Rheumatology
2. International Study of Comparative Health Effectiveness with Medical and Invasive Approaches (ISCHEMIA Trial), Cardiology
3. Prevalence of symptomatic and asymptomatic coronary artery disease in patients with ischemic stroke and TIA, Neurology, Cardiology
4. Value of Gated-SPECT MPI for Ischemia-Guided PCI of non-culprit vessels in STEMI patients with multivessel disease after primary PCI, Cardiology
PUBLICATIONS
Journals: 50    Abstracts: 30    Chapters in Books: 6

PATIENT CARE

Diagnostic scan and radionuclide therapies administered

Diagnostic: General Nucl Med

<table>
<thead>
<tr>
<th>No.</th>
<th>Procedure</th>
<th>Counts</th>
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<tbody>
<tr>
<td>1.</td>
<td>Tc99m Thyroid Scan</td>
<td>346</td>
</tr>
<tr>
<td>2.</td>
<td>I-131 WB Scan (Diagnostic)</td>
<td>1,082</td>
</tr>
<tr>
<td>3.</td>
<td>RAIU</td>
<td>790</td>
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<tr>
<td>4.</td>
<td>I-131 WB Scan (Post-Therapy)</td>
<td>715</td>
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<tr>
<td>5.</td>
<td>99mTc-MDP Bone Scan</td>
<td>2,727</td>
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<tr>
<td>6.</td>
<td>Renal Dynamic Scan</td>
<td>4,436</td>
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<tr>
<td>7.</td>
<td>GFR</td>
<td>2,270</td>
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<tr>
<td>8.</td>
<td>DRCG</td>
<td>271</td>
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<tr>
<td>9.</td>
<td>HIDA scan</td>
<td>349</td>
</tr>
<tr>
<td>10.</td>
<td>GET (Gastric Emptying Time)</td>
<td>86</td>
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<tr>
<td>11.</td>
<td>Blood Pool</td>
<td>27</td>
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<tr>
<td>12.</td>
<td>Gastro Esophageal Reflux</td>
<td>773</td>
</tr>
<tr>
<td>13.</td>
<td>Lymphoscintigraphy</td>
<td>324</td>
</tr>
<tr>
<td>14.</td>
<td>Sentinel Lymphnode</td>
<td>21</td>
</tr>
<tr>
<td>15.</td>
<td>MIBG Scan (Diagnostic)</td>
<td>308</td>
</tr>
<tr>
<td>16.</td>
<td>GHA</td>
<td>6</td>
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<tr>
<td>17.</td>
<td>Liver Spleen</td>
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<td>18.</td>
<td>MAG-3</td>
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<tr>
<td>19.</td>
<td>Meckle’s scan</td>
<td>57</td>
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<tr>
<td>20.</td>
<td>Parathyroid</td>
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<tr>
<td>21.</td>
<td>TRODAT Scan</td>
<td>409</td>
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<tr>
<td>22.</td>
<td>SPECT-CT (ECD-ICT and ECD-INT)</td>
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<tr>
<td>23.</td>
<td>DMSA</td>
<td>1,621</td>
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Therapeutic

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<th>No.</th>
<th>Procedure</th>
<th>Counts</th>
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<tr>
<td>24.</td>
<td>Thyroid Cancer Treatment</td>
<td>1,115</td>
</tr>
<tr>
<td>25.</td>
<td>Thyrotoxicosis Treatment</td>
<td>408</td>
</tr>
<tr>
<td>26.</td>
<td>Ac-225-DOTA-TATE</td>
<td>115</td>
</tr>
<tr>
<td>27.</td>
<td>MIBG Therapy</td>
<td>9</td>
</tr>
<tr>
<td>28.</td>
<td>Lutetium 177-DOTATATE</td>
<td>218</td>
</tr>
<tr>
<td>29.</td>
<td>177Lu PSMA-617</td>
<td>138</td>
</tr>
<tr>
<td>30.</td>
<td>177Lu EDTMP</td>
<td>20</td>
</tr>
<tr>
<td>31.</td>
<td>225Ac PSMA</td>
<td>30</td>
</tr>
<tr>
<td>32.</td>
<td>177Lu DOTMP</td>
<td>13</td>
</tr>
<tr>
<td>33.</td>
<td>177Lu BPAMB</td>
<td>6</td>
</tr>
<tr>
<td>34.</td>
<td>177Lu Zoledronic Acid</td>
<td>7</td>
</tr>
<tr>
<td>35.</td>
<td>Rhenium 188- Radiosynovectomy</td>
<td>36</td>
</tr>
<tr>
<td>36.</td>
<td>TARE</td>
<td>11</td>
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</table>

Diagnostics—Positron Emission Tomography (PET/CT)

<table>
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<tr>
<th>No.</th>
<th>Procedure</th>
<th>Counts</th>
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<tbody>
<tr>
<td>37.</td>
<td>18F FDG</td>
<td>7210</td>
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<td>38.</td>
<td>Ga68 PSMA</td>
<td>566</td>
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<tr>
<td>39.</td>
<td>Ga68 DOTA NOC</td>
<td>714</td>
</tr>
<tr>
<td>40.</td>
<td>F18 Choline</td>
<td>55</td>
</tr>
<tr>
<td>41.</td>
<td>68Ga Exendin 4</td>
<td>6</td>
</tr>
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<td>42.</td>
<td>F18 DOPA</td>
<td>83</td>
</tr>
<tr>
<td>43.</td>
<td>F18 TAU</td>
<td>19</td>
</tr>
</tbody>
</table>
AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor CS Bal was recognized by British Nuclear Medicine Society’s Journal Nuclear Medicine Communication awarded “Top Reviewer Certificate” for the year 2018; Delivered an IGCAD Oration on “Role of Nuclear Medicine in Thyroid Disorders” at Metabolic Conclave 2019 on 17 March 2019 at Dubai, United Arab Emeritus.

Professor Bal’s International Contribution: IAEA Expert Mission to Bangladesh under TC-BGD6027 “Strengthening Cancer Management through Capacity Building in Molecular Imaging Technology and Radiation Oncology” from 1 October to 5 October 2018 at Dhaka, Bangladesh.

Professor Rakesh Kumar was overseas Editor, Nuclear Medicine Communications; Reviewer of scientific abstracts submitted at the 65th Annual Meeting of Society of Nuclear Medicine (SNM), to be held in June 2019, Philadelphia, USA.

Professor Chetan D Patel was external expert in Technical Specification Committee for purchase of solid state detector SPECT camera at PGIMER, Chandigarh; Member of Executive Committee, Society of Nuclear Medicine India; Member of Executive Committee, Association of Nuclear Medicine Physicians of India; Member of Executive Committee, Nuclear Cardiological Society of India.

Dr Madhavi Tripathi was Editorial Board Member of Indian Journal of Nuclear Medicine, Chairperson for session on Imaging in movement disorders in 4th Annual Conference of Movement Disorders Society of India, 23 February 2019, New Delhi.

### 9.24. Obstetrics and Gynaecology

<table>
<thead>
<tr>
<th>Professor and Head</th>
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</thead>
<tbody>
<tr>
<td>Alka Kriplani (up to 24 August 2018)</td>
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</table>

<table>
<thead>
<tr>
<th>Professors</th>
</tr>
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<tbody>
<tr>
<td>Dipika Deka (on deputation)</td>
</tr>
<tr>
<td>Neena Malhotra</td>
</tr>
<tr>
<td>Neerja Bhatla</td>
</tr>
<tr>
<td>Vatsla Dadhwal</td>
</tr>
<tr>
<td>KK Roy</td>
</tr>
<tr>
<td>JB Sharma</td>
</tr>
<tr>
<td>Neeta Singh</td>
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<table>
<thead>
<tr>
<th>Associate Professors</th>
</tr>
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<tbody>
<tr>
<td>K Aparna Sharma</td>
</tr>
<tr>
<td>Garima Kachhawa</td>
</tr>
<tr>
<td>P Vanamail</td>
</tr>
<tr>
<td>Reeta Mahey</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assistant Professors</th>
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</thead>
<tbody>
<tr>
<td>Vidushi Kulshrestha</td>
</tr>
<tr>
<td>Seema Singhal</td>
</tr>
<tr>
<td>Jyoti Meena</td>
</tr>
<tr>
<td>Rajesh Kumari</td>
</tr>
<tr>
<td>Juhi Bharti</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Scientists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rohini Sehgal (G. III)</td>
</tr>
<tr>
<td>Arun Kumar (G. I)</td>
</tr>
</tbody>
</table>
HIGHLIGHTS
Two Days International Conference on Newer Horizons of Reproductive Medicine and live workshop on ‘surgical sperm retrieval techniques’ was organized by Division of Reproductive Medicine, on 2 and 3 February 2019. The Conference was inaugurated by Honorable Minister of State, MOHFW. A number of eminent international faculty from USA, UK, Germany, Spain and Australia deliberated on various debatable issues and it was well attended.
Short Term Training

The department offers short term training in various super specialty subjects like ‘Gynae Endoscopic Surgery’, ‘Maternal and Fetal Medicine’, ‘Gynae Oncology’, ‘Ultrasonography’ and ‘Infertility’. The following doctors were trained in different disciplines:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of the Candidate</th>
<th>Place</th>
<th>Training Period</th>
<th>Speciality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kevin Mark Fong</td>
<td>New Zealand</td>
<td>21 May 2018 to 22 June 2018</td>
<td>Observer</td>
</tr>
<tr>
<td>2</td>
<td>Etna Bouchier</td>
<td>France</td>
<td>2 July 2018 to 24 August 2018</td>
<td>Observer</td>
</tr>
<tr>
<td>3</td>
<td>Swikriti Sharma</td>
<td>Pleven</td>
<td>17 July 2018 to 31 July 2018</td>
<td>Observer</td>
</tr>
<tr>
<td>4</td>
<td>Alexis Rick</td>
<td>France</td>
<td>17 July 2018 to 30 July 2018</td>
<td>Observer</td>
</tr>
<tr>
<td>5</td>
<td>Anjana Jha</td>
<td>Jharkhand</td>
<td>6 August 2018 to 18 August 2018</td>
<td>Basic Laparoscopic Gynae Surgery</td>
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<tr>
<td>6</td>
<td>Dibakar Debbarma</td>
<td>Agartala</td>
<td>1 November 2018</td>
<td>Observer</td>
</tr>
<tr>
<td>7</td>
<td>Kashish Garg</td>
<td>Agartala</td>
<td>1 November 2018 to 31 December 2018</td>
<td>Observer</td>
</tr>
<tr>
<td>8</td>
<td>Prasanta Kumar Nayak</td>
<td>Raipur</td>
<td>19 November 2018 to 18 December 2018</td>
<td>Observer (Reproductive Medicine Centre)</td>
</tr>
<tr>
<td>9</td>
<td>Stav Oved</td>
<td>Israel</td>
<td>3 December 2018 to 7 December 2018</td>
<td>Observer</td>
</tr>
<tr>
<td>10</td>
<td>Jane Ripley</td>
<td>Australia</td>
<td>10 December 2018 to 6 January 2019</td>
<td>Observer</td>
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<tr>
<td>11</td>
<td>Merlyn Mathew</td>
<td>Australia</td>
<td>14 January 2019 to 18 January 2019</td>
<td>Observer</td>
</tr>
<tr>
<td>12</td>
<td>Cathy King</td>
<td>Australia</td>
<td>14 January 2019 to 18 January 2019</td>
<td>Observer</td>
</tr>
<tr>
<td>13</td>
<td>Uma Pandey</td>
<td>Varanasi</td>
<td>16 January 2019 to 23 January 2019</td>
<td>Observer</td>
</tr>
<tr>
<td>14</td>
<td>Sumee Kakim</td>
<td>Aligarh</td>
<td>21 January 2019 to 3 February 2019</td>
<td>Observer</td>
</tr>
<tr>
<td>15</td>
<td>Beela Venkata Radha Kumari</td>
<td>Visakhapatnam</td>
<td>15 March 2019 to 15 May 2019</td>
<td>Observer</td>
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<tr>
<td>16</td>
<td>Sangeeta Raman Joshi</td>
<td>Chhattisgarh</td>
<td>15 March 2019 to 29 March 2019</td>
<td>Observer</td>
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</table>

Long Term Training

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of the Candidate</th>
<th>Place</th>
<th>Training Period</th>
<th>Speciality</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Lt Col (Dr) Mhaske Nilesh Madhu kar</td>
<td>Armed Forces</td>
<td>15 October 2018 to 14 October 2019</td>
<td>Maternal and Fetal Medicine</td>
</tr>
<tr>
<td>2</td>
<td>Lt Col (Dr) Venus Deshwal</td>
<td>Armed Forces</td>
<td>16 October 2018 to 5 November 2018</td>
<td>MIS Gynae Endoscopy</td>
</tr>
<tr>
<td>3</td>
<td>Dr Abhijeet Kumar</td>
<td>Armed Forces</td>
<td>1 January 2019 to 31 December 2020</td>
<td>Observer</td>
</tr>
</tbody>
</table>

CMEs/Workshops/Symposia/National and International Conferences Organized in the Department

1. Women’s health initiative training course in Minimally Invasive Gynaecology, 16-21 April 2018, AIIMS, New Delhi
2. CME series on high risk pregnancy, 13 May 2018, AIIMS, New Delhi
3. Women’s health initiative training course in Minimally Invasive Gynaecology, 4-9 June 2018, AIIMS, New Delhi
4. Preconference AOGD Workshop on Hysteroscopy, Organized by Department of Obstetrics and Gynaecology, AIIMS, New Delhi and Association of Obstetricians and Gynaecologists of Delhi, 23 August 2018, AIIMS, New Delhi
5. Workshop for successful implementation of ‘LaQshya’ programme in Medical Colleges, 17 and 18 September 2018, AIIMS, New Delhi-Dr K Aparna Sharma
6. Inter-country Training of Trainers for Quality Improvement for care of Mothers and Newborns, 3-5 October 2018, Vasant Kunj, New Delhi-Dr K Aparna Sharma
7. FIGO Pre-Congress Workshop: Mastering Techniques for Screening of Breast and Cervical Cancer and Management of Preinvasive Cervical Lesions (in collaboration with IFCPC and Jhpiego)-Dr Neerja Bhatla, 14 October 2018, Rio de Janeiro, Brazil
8. FIGO Video Workshop: Preventive Oncology for the Practising Gynaecologist-Dr Neerja Bhatla, 16 October 2018, Rio de Janeiro, Brazil
9. FIGO Video Workshop: Gynecologic Oncology Surgery—Learning from the Masters-Dr Neerja Bhatla, 19 October 2018, Rio de Janeiro, Brazil
10. CME on Gynecologic Oncology Update (in collaboration with AOGD Oncology Committee) and SGO, USA, 14 November 2018, AIIMS, New Delhi
11. Hysteroscopy Pre-Congress AOGD Workshop, Organized by Department of Obstetrics and Gynaecology and Association of Obstetricians and Gynaecologists of Delhi, 22 November 2018, AIIMS, New Delhi
12. Workshop for successful implementation of ‘LaQshya’ programme in Medical Colleges, 21 and 22 January 2019, AIIMS, New Delhi-Dr K Aparna Sharma
13. An international conference cum workshop 3rd FERTICON 2019 (First live workshop on surgical sperm retrieval), 2 and 3 February 2019, AIIMS, New Delhi
14. Suture Practicum Workshop for Postgraduates and Senior Residents, 9 March 2019, New Delhi

Lectures delivered
Sunesh Kumar
2. Demonstrative and delivered lecture on “Forceps and Ventouse”, At FOGSI FORCE RAJDHANI-Academic Programme, 6 May 2018, New Delhi
3. Case discussion on “Cervical Cancer”, At FOGSI FORCE RAJDHANI-Academic Programme, 6 May 2018, New Delhi
5. Demonstration of Instrumental Delivery, 15th Practical Course and CME in Obstetrics and Gynaecology, 9 September 2018, New Delhi

Neerja Bhatla
2. Audit and Indications of Hysterectomy, Hysterectomy: New Evidence and Directions for Advocacy, Research and Programmes, 28 July 2018, New Delhi
3. Practicalities of cervical screening in the India/Sri Lanka and Bhutan, 32nd International Papillomavirus Conference (IPVC 2018) in conjunction with AOGIN 2018, 2-6 October 2018, Sydney, Australia
5. Cervical cancer screening in post—HPV vaccine era in the LMICs, XXII FIGO World Congress of Gynecology and Obstetrics, 16 October 2018, Rio de Janeiro, Brazil
6. “Cryotherapy and thermal ablation” Video, XXII FIGO World Congress of Gynecology and Obstetrics, 16 October 2018, Rio de Janeiro, Brazil
7. Ovarian Transposition—Video, XXII FIGO World Congress of Gynecology and Obstetrics, 19 October 2018, Rio de Janeiro, Brazil
8. Cervical Screening Practice and Opportunities in Asia, XXII FIGO World Congress of Gynecology and Obstetrics, 19 October 2018, Rio de Janeiro, Brazil
11. Panelist in panel discussion on vulvar abnormalities and VIN, NARCHI Preconference Workshop on Vulval Disorders from Adolescence to Menopause, 21 February 2019, New Delhi
12. Panelist in panel discussion on training programmes in gynaecological oncology, 1st Annual Meeting of KolGoTrg, 2-4 March 2019, Kolkata
13. New FIGO Staging and perspective of trials in LMIC, 1st Annual Meeting of KolGoTrg, 2-4 March 2019, Kolkata
15. Panelist in panel discussion on What should be the strategy for cervical cancer screening for Indian Population? An Update on GTD and Gynaecological Cancer Conference, 15-17 March 2019, Kovalam

Kallol Kumar Roy

2. “Fetal Growth Restriction” on 6 May 2018, FOGSI Force Rajdhani, PG Academic Programme by Association of Obstetricians and Gynaecologists of Delhi (AOGD) in Association with Medical Education Committee (FOGSI), 6 May 2018, New Delhi
3. Recent concepts of Letrozole for induction of ovulation CME organized by the Amritsar Gynaecology and Obstetrics Society, affiliated to FOGSI (Mumbai), 26 May 2018, Amritsar
4. Recurrent Pregnancy Loss and Luteal Phase Defect: Current scenario, the CME organized by the Jodhpur Gynaecology and Obstetrics Society, Jodhpur, 19 May 2018, Jodhpur
5. Hysteroscopy: Diagnostic and Operative—Our Experiences, 33rd training course in MINIMALLY INVASIVE GYNAECOLOGY, 4-9 June 2018, New Delhi
6. Thyroid Disorders in Gynaecology of India (GESI), National Conference Gynae Endoscopy 2018, 15-17 June 2018, Pune
7. Management of Endometriosis: Recent Scenario, CME on Infertility by Surat Obstetrics and Gynaecology Society, 8 July 2018, Surat
8. Recent trends in the management of recurrent pregnancy loss and role of progesterone, CME by the Lucknow Obstetrics and Gynecology (LOGS), 28 July 2018, Lucknow
10. Management of endometriosis: Recent scenario, CME organized by the Jalandhar Gynaecology and Obstetrics Society, 15 September 2018, Jalandhar
11. Preventing near miss maternal mortality on “Professor SN Mukherjee oration”, 14th World Conference and 22nd Indian Conference of NARCHI, 28 and 29 September 2018, Nagpur
12. Abortion, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
13. Ante partum Haemorrhage, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
14. Genital fistula, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
15. Prenatal Diagnosis, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
16. Amenorrhoea, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
17. Coagulation failure, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
18. Gestational Diabetes, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
19. Genital TB, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
20. Multifetal Gestation, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
21. Preterm prelabour rupture of membranes, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
22. Genital Infections, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
23. Evaluation of laparoscopic ovarian drilling by harmonic scalpel vs monopolar drilling needle in cases of clomiphene citrate resistant polycystic ovarian response, 47th Global Congress on Minimally invasive (MOGS) Gynaecology, 11-15 November 2018, Las Vegas, Nevada (USA)
25. Primary and Secondary Infertility, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
26. Contraception in details, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
27. PCOS and Hirsuitism, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
28. MTP in details, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
29. Primary and Secondary Infertility, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
30. MTP, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
31. Contraception, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
32. Ectopic, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
33. PCOS and Hirsuitism, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
34. Abnormal uterine bleeding, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
35. Endometriosis, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
36. Early pregnancy Bleeding, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
37. Antibiotic prophylaxis in obstetrics and gynaecology, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
38. Common infection in Gynaecology, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata

Vatsla Dadhwal
1. Antiphospholipid antibody syndrome: An enigma, 4th UPCOG MID TERM CME, 10 May 2018, Agra
2. Moderated panel on Fetal Infections, GFMCON 2018 FOGSI ISPAT Conference on Genetics and Fetal Medicine, 17 June 2018, Patna
3. Panelist: Pregnancy outcome in women with PCOS, PCOS Workshop, 24 June 2018, Gurugram
5. Dual marker interpretations: Case based, CME—Innovations in Fetal Medicine, 23 August 2018, Gurugram
7. Management of Complicated twin Panelist—Inverting pyramid of ANC, 1st International Conference on Maternal and Fetal Medicine, 1 and 2 September 2018, Dhaka, Bangladesh
8. Case Discussion on “Twin pregnancy”, 21st Practical Course and CME, 9 September 2018, New Delhi


15. Role of soft markers in today's era Evaluation and management of Rh isoimmunised pregnancy, Fetal medicine workshop, 30 November 2018, Madurai


17. Fetal Emergencies! Need skilled intervention, Pre-Congress NARCHI WORKSHOP on Fetal Medicine: Common Fetal Problems, 22 February 2019, New Delhi


19. Antenatal Care, CRPF-FOGSI Joint Wellness Initiative-2019 Sexual and Reproductive Health Awareness Programme, 14 March 2019, New Delhi


21. Panel discussion on Fetal anomalies—Right advise for right outcome, 35th National ISOPARB Conference 2019, 30 and 31 March 2019, Hyderabad

**JB Sharma**

1. How to deal with Apex, North Zone Yuva FOGSI, 27-29 April 2018, Uttrakhand

2. Dissipation of information on disorder of sex development to unravel science behind DSD and Sensitizing common people of North-East-Phase-II, Workshop, 5 and 6 May 2018, Assam

3. Role of Progesterone in LPD, threatened abortion and PTL, Varanasi Obstetric and Gynecological Society, 27 May 2018, Varanasi

4. Health issues pertaining to Obstetrics and Gynecology Panel Discussion on present day Health issues related to Life style and Environment, National Conference on Wellbeing and Health, 11 August 2018, Punjab


6. Role of progestogens in endometriosis”, IUGA is partnering with the Urogynecology and Reconstructive Pelvic Surgery Society of India (URPSSI), 7-9 September 2018, Tamil Nadu

7. Bad obstetric history, Kota Obstetrics and Gynaecology Society Rajasthan, 7 October 2018, Rajasthan

8. Native tissue repair for prolapse: A possible alternative to mesh, 32nd AICC RCOG Annual Conference, 4 November 2018, New Delhi

9. Current thinking in diagnosis and management of Female Genital Tuberculosis, 40th Annual Conference AOGD, 24 November 2018, New Delhi

10. Chairperson, 73rd NATCON, 6 January 2019, Nagpur

11. Role of Calcium from Intra Uterine Life to Menopause, 62nd All India Congress of Obstetrics and Gynaecology, 10 and 1 January 2019, Bengaluru

**Neeta Singh**


3. Reproductive Medicine—Clinical Update, 32nd AICC RCOG Annual Conference, 1-2 November 2018, New Delhi

4. Role of Stem Cells in Refractory Asherman Syndrome—Hope or Hype? Annual 2018 Conference of the Foundation for Reproductive Medicine Translational Reproductive Biology and Clinical Reproductive Endocrinology, 15-18 November 2018, New York, USA

K Aparna Sharma

1. Fetal Endoscopy, WHI, 16 April 2018, New Delhi
2. Fetal Endoscopy, WHI, 20 April 2018, New Delhi
3. POCQI approach, Quality Convention, 21 April 2018, New Delhi
4. POCQI step 1 and II, Faculty Workshop on Quality Improvement, 25 April 2018, New Delhi
5. Hands on Trainer for Fetal Medicine Workshop, NZYF, 27 April 2018, Dehradun
6. Sutures and Knots, NZYF, 28 April 2018, Dehradun
7. Diabetes, FORCE PG, 5 May 2018, New Delhi
8. Pedagogy Session, FORCE PG, 5 May 2018, New Delhi
10. QI vs QA, NNF and UNICEF National Level training of Trainers for Accreditation Guidelines Workshop, 20 May 2018, Gurgaon
11. Safety of GI drugs in pregnancy, INASL-FOGSI Liver meet 2018, 26 May 2018, Gurgaon
12. Moderaror for Panel on Prevention of Gyn Cancers, FIWHS, 1-3 June 2018, Gurgaon
13. Indications and Contraindications of Induction of Labor, FOGSI-ICOG GCPR on Induction of Labor, 3 June 2018, Gurgaon
14. Fetal Endoscopy, WHI, 4 June 2018, New Delhi
15. Fetal Endoscopy, WHI Endoscopy Training, 8 June 2018, New Delhi
17. Panel Moderator on Hemoglobinopathies, GFMCON, 17 June 2018, Patna
18. Anemia in Pregnancy, PG Assembly, 4 August 2018, New Delhi
19. PE screening, TOT on Preeclampsia, 12 August 2018, Bangalore
21. Prognostication in first trimester, SFM Quarterly Meet, 29 August 2018, New Delhi
22. Case discussion on “Twin pregnancy”, 21st Practical Course and CME, 9 November 2018
23. Preeclampsia Screening, FOGSI CME on Preeclampsia, 6 October 2018, Aligarh
27. Reversed end diastolic flows in early preterm pregnancy, 40th Annual Conference of AOGD, 24 November 2018, New Delhi
28. Induction of Labor, North Zone YuvaFogsi, 1 February 2019, Noida
29. Challenges in management of Rh Isoimmunisd pregnancy, North Zone YuvaFogsi, 1 February 2019, Noida
30. Understanding QI methodology, Workshop on Patient Safety and Quality Care, 5 February 2019, Raipur
31. Importance of Quality in Healthcare, Workshop on Patient Safety and Quality Care, 5 February 2019, Raipur
33. Collating experience on learning in QI, WHO QED Network Meeting in Ethiopia, 15 March 2019, Ethiopia
34. Aneuploidy screening in first trimester, National Conference Gestosis, 24 March 2019, Lucknow
35. Zika virus in pregnancy, Annual Conference of ISOPARB, 31 March 2019, Hyderabad
36. Panel discussion, Annual Conference of ISOPARB, 31 March 2019, Hyderabad
Garima Kachhawa

1. Laparoscopic management of ectopic pregnancy, 32nd WHI Training Course, Minimally Invasive Gynaecology, 16-21 April 2018, AIIMS, New Delhi
2. Laparoscopic management of ectopic pregnancy, 33rd WHI Training Course, Minimally Invasive Gynaecology, 9 June 2018, AIIMS, New Delhi
5. Newer avenues for cabergoline, CME, 20 June 2018, New Delhi
7. ART and CRAFT of vaginal delivery, West Zone Yuva FOGSI-2018, 20-22 July 2018, Udaipur
8. Medical management of endometriosis, CME, 12 August 2018, Gwalior

Reeta Mahey

1. Ovulation induction in endometriosis, GESICON 2018, 15-17 June 2018, Pune
2. Controlled ovarian stimulation protocols for cancer patients, YUVA-ISAR 2018, 29-30 July 2018, Chennai
3. Errorless oocyte pick up and embryo transfer—Is it possible? QA/QC conference organized by India Fertility Society, 23 September 2018, Patna
4. Laparoscopy in infertility, Hariyana ISAR Conference, 7 October 2018, Sonepat
6. Insulin resistance, PCOS and obesity—A prescribed solution to address challenges, BOGSCON 2018, 21-23 December 2018, Kolkata
7. Management of thin endometrium in ART—Panelist, Delhi ISAR Installation Programme, 15 January 2019, Delhi
8. Controlled Ovarian stimulation protocols—in IVF, National CME by Indian Fertility Society, 17 February 2019, Kolkata
9. Recent advances in management of fibroid and endometriosis, Delhi ISAR CME, 8 March 2019, New Delhi

Vidushi Kulshrestha

1. Adolescent PCOS, 4th UPCOG Midterm CME, organized by UPCOG and Agra Obstetrics and Gynae Society, 10 May 2018, Agra
2. Bad obstetric history: Trimester wise case-based discussion (Panelist), CME on High Risk Pregnancy, Organized by Division of Fetal Medicine, Department of Obs and Gynae, AIIMS, 13 May 2018, New Delhi
3. AUB management in special case scenarios—Case based discussion, 5th National Conference of Gynae Endocrinology-GESICON 2018, organized by Gynae Endocrinology Society of India (GESI) and Pune Obstetrics and Gynaecological Society (POGS), 15 June 2018, Pune
4. Turners syndrome in adolescence, 5th National Conference of Gynae Endocrinology—GESICON 2018, organized by Gynae Endocrinology Society of India (GESI) and Pune Obstetrics and Gynaecological Society (POGS), 16 June 2018, Pune
5. AUB: Good clinical practice recommendations, CME organized by Gwalior Obs and Gynae Society, 12 August 2018, Gwalior
7. Conduct of normal labour module, Trial 3 of Skill Teaching Module for UG Teaching (eSET facility), 20 December 2018, New Delhi
8. Intrapartum fetal monitoring, Pre-congress Workshop of North Zone Yuva FOGSI, Radisson Blue, 1 February 2019, Noida

Seema Singhal

1. Basic components of Pre-conceptional care, CME series on High Risk Pregnancy, 13 May 2018, AIIMS
2. Case based Discussion Ca Endometrium, Speed dating in Gynae Oncology, 19 May 2018, New Delhi
3. Cervical Cancer Screening Methods and Guidelines, Speed dating in Gynae Oncology, 31 May 2018, New Delhi
4. Quiz master for Quiz on Endometriosis, CME on Endometriosis, 15-17 June 2018, New Delhi
5. Moderator for Panel Discussion on Tt of refractory/Recurrent sarcoma, 1st Delhi Gynae Oncology Meeting, 4 July 2018, New Delhi
6. Expert member for revision of LSAS curriculum, Expert group meeting, 6-7 July 2018, 12 July 2018, NIFHW
7. Session on Gynecological cancers co-ordinator faculty Best of ASCO 2018 Annual meeting, ISCO—An initiative of NCI, 28 and 29 July 2018, AIIMS, New Delhi
8. Hereditary ovarian cancers: Role of BRCA, Speed dating in Gynae Oncology, 11 August 2018, New Delhi
9. Screening of pre-malignant lesion of cervix and endometrium, CME on Screening in Obstetrics and Gynecology—Prevention and early detection is always better, 22 September 2018, Vardha
10. Post pregnancy family planning lecture under Family Planning Division GOI initial management of women with cervical carcinoma, Certified digital course screening and management of carcinoma cervix by Omnicuris, FOGSI Website
11. Mentored the participants for group work and make their projects lecture on How to present the Step 1, Inter country Training of Trainers for Quality Improvement (QI) of care of women and newborns from New Delhi, 3-5 October 2018, New Delhi
12. Epidemiology of cervical cancer in India: Where do we stand today, AOGIN India CME, 3 November 2018, Vellore
13. Barriers to prevention, AOGIN India CME, 3 November 2018, Vellore
15. Debate—Laparoscopy is the standard of care for ovarian tumors, 40th Annual Conference of Association of Obstetricians and Gynecologists of Delhi (AOGD), 24 November 2018, New Delhi
16. Panelist case-based discussion cervical cancer screening, Cervicon, 26 December 2018, Ghaziabad
17. Improvement Process Step 1, Two-Day LaQshya Orientation workshop cum Training for Medical Colleges, 21-22 January 2019, New Delhi
18. Women’s Health and Hygiene, Theme based health talks, 21 February 2019, DGHS Nirman Bhawan

Jyoti Meena

2. Hair in urine: Patient’s nightmare, AOGD Meet, 28 July 2018, New Delhi
3. A scary tale of hairy urine, Clinical combined round, 1 September 2018, New Delhi
5. Pelvic examination, Trial-2, skill teaching module for UG teaching, 26 October 2018, New Delhi
6. Conduct of normal delivery, Trial-3 skill teaching module for UG teaching, 20 December 2018, New Delhi

Juhi Bharti

1. Facilitator for group work, Workshop for Implementation of Laqshya Labor Room Transformation Programme in Medical Colleges, 17-18 September 2018, New Delhi
2. Pelvic examination, Trial-2 Skill Teaching Module for UG Teaching, 26 October 2018, New Delhi
3. Episiotomy, Trial-3 Skill Teaching Module for UG Teaching, 20 December 2018, New Delhi
5. Group facilitator for making own projects, Two Day LaQshya Orientation Workshop cum Training for Medical Colleges, 21 and 22 January 2019, New Delhi

Oral papers/posters presented

2. Bachani S, Dadhwal V, Sharma AK, Bhawana, Correlation between fetal liver blood flow and neonatal adiposity in gestational diabetes mellitus and fetal growth restriction, 17th World Congress in Fetal Medicine, 24-28 June 2018, Athens, Greece


5. Dadhwal V, Deka D, Sharma AK, Chawla L, Perinatal outcome after selective feticide in monochorionic twin pregnancies, 28th World Congress on Ultrasound in Obstetrics and Gynaecology, 20-24 October 2018, Singapore

6. Dadhwal V, Sharma AK, Bansal P, Rana A, Chawla J, Jain A, Fetal-Neonatal Alloimmune Thrombocytopenia (FNAIT), A successful neonatal outcome with antenatal intravenous immunoglobulin, North Zone Yuva FOGSI, 3 February 2019, New Delhi, Poster presentation, 1st prize


10. Deka D, Dadhwal V, Sharma AK, Agarwal N, Bansal P, Maternal and perinatal outcomes of twin pregnancies in a tertiary care centre in North India, 17th World Congress in Fetal Medicine, 24 and 28 June 2018, Athens, Greece

11. Deka D, Dadhwal V, Sharma AK, Bachani S, Profile of patients referred for invasive prenatal diagnostic procedure in Maternal-Fetal Medicine Unit, AIIMS, New Delhi, FETOCON, April 2018, Mumbai, Best oral paper

12. Deka D, Dadhwal V, Sharma AK, Bajaj R, Gupta N, Non-immune hydrops fetalis a single centre experience of 47 cases, 22nd International Conference on Prenatal Diagnosis and Therapy at Antwerp, 9 July 2018, Belgium


14. Deka D, Dadhwal V, Sharma AK, Deedwania P, Bachani S, Technique and tips for adequate chorionic villus sampling as a prenatal diagnostic procedure, YUVA FOGSI Dehradun, April 2018 Video Presentation, 28 April 2018, Dehradun


32. Natarajan J, Kumar L, Malik PS, Khurana S, Kumar S, Bhatla N, ASGO international workshop on Gynaecological Oncology 2018, 24 and 25 August 2018, Ajou University, Suwon, South Korea

33. Natarajan J, Kumar L, Malik PS, Khurana S, Kumar S, Bhatla N, Retrospective analysis of patients of adult granulosa cell tumour of ovary—A single institutional study, ASGO 5th International Workshop on Gynecologic Oncology, 24 and 25 August 2018, Suwon, Korea


37. Preeti, Deka D, Dadhwal V, Sharma AK, Deedwania P, Bachani S, Bajaj R, Video Presentation on amniocentesis, YUVA FOGSI Dehradun April 2018 Video Presentation, 28 April 2018, Dehradun

38. Rajan S, Sharma KA, Anticoagulation in pregnancy and postpartum: Newer options, NZYF, 1 February 2019, Noida


40. Seema S, Sharma KA, Bharti J, To improve the compliance for duration of hand washing among obstetricians performing emergency LSCS in maternity operation room from current 42.5 seconds to 120 seconds, over a period of 2 months, 40th Annual Conference of AOGD, 25 November 2018, New Delhi

41. Seema S, Sunesh K, Jyoti M, Aarth J, Mathur S, LG ESS masquerading as recto vaginal endometriosis, AGOICON, 17 November 2018, Gwalior

43. Sehgal R, Kandpal S, Kumar S, Is there an association between ABO Blood Group and fertility, Global Conference on RH with Focus on Occupational, Environmental and Lifestyle Factors, 23 February 2019, New Delhi

44. Sehgal R, Kriplani A, Vanamail P, Comparative twelve-month study of CuT380Ag in three different sizes with CuT380A intrauterine devices in a tertiary hospital, 62nd All India Congress of Obstetrics and Gynaecology, 10 January 2019, Bengaluru


46. Sharma AK, Dadhwal V, Deka D, Intrauterine fetal interventions, NZYF, 28 April 2019, Dehradun

47. Sharma AK, Swami S, Dadhwal V, Deka D, Perumal V, A prospective study of aortic isthmus doppler changes in appropriately grown and small for gestational age foetuses and association with perinatal outcome, 40th Annual Conference of AOGD, 24 and 25 November 2018, New Delhi, SN Ganguly award for best paper in Miscellaneous

48. Sharma JB, A comparative study of pregnant women with extra-pulmonary tuberculosis compared with healthy pregnant women, FIGO 2018—RIO DE JANEIRO- XXII WORLD CONGRESS OF GYNECOLOGY AND OBSTETRICS, 14-19 October 2018, Rio-de-Janero, Brazil

49. Sharma JB, Medical management of Endometriosis, 27th International Scientific Conference of Obstetrical and Gynaecological Society of Bangladesh (OGSB), 1 and 2 February 2019, Dhaka, Bangladesh


54. Singh N, Davis A, Kumar S, Vanamail P, Intravenous intralipid on implantation rate in women with implantation failure after IVF/ICSI, XXII FIGO Congress, 14-19 October 2018, Rio di Generio, Brazil

55. Singh N, Girish B, Meena J, Ultrasound-guided Intra-sac instillation of Methotrexate in Interstitial Ectopic Pregnancy, XXII FIGO Congress, 14-19 October 2018, Rio di Generio, Brazil


58. Vanamail P, Meta-analysis on maternal deaths and assessing significant factors for heterogeneity between states of India during 2016, 36th Annual Conference of Indian Society for Medical Statistics (ISMSCON-2018), 1-3 November 2018, NIMHANS, Bengaluru


**RESEARCH**

**Funded projects**

**Ongoing**

1. Prevalence of Vitamin B12 Deficiency among Indian Women with Polycystic Ovary Syndrome (PCOS) and The Impact of Vitamin B12 Supplementation on the efficacy of Conventional drugs in the Management of Women with PCOS, Vatsla Dadhwal, DBT, 3 years, 2015-2018, Rs 49.75 lakhs
2. Enhanced, tailored antenatal care to reduce anaemia in pregnancy—The Comprehensive Anaemia Programme and Personalized Therapies (CAPPT) project, Vatsla Dadhwal, DBT, 3 years, 2018-2021, Rs 117 lakhs

3. Effects of non-ioning Electromagnetic Field (EMF) on Human Health, JB Sharma, ICMR, 5 years, 2009-Till date, Rs 47 lakhs

4. To study the efficacy and safety of Diosmin (900 mg) given along with Traneximic acid (500 mg) and Mefenamic acid (250 mg) in reducing menstrual blood loss in patients of Abnormal Uterine bleeding, JB Sharma, Wallter Bushnel Pvt. Ltd, 3 years, 2016-Till date, Rs 17 lakhs

5. Evaluation of Gene Xpert as compared to conventional methods in diagnosis of genital TB among infertile women, JB Sharma, Ministry of Health and Family Welfare, 3 years, 2016-Till date, Rs 28 lakhs

6. To study combination of biochemical endothelial markers and arterial stiffness in prediction of preeclampsia, Garima Kachhawa, ICMR, 3 years, 2018-2021, Rs 76 lakhs

7. Role of Endocrine Disrupting Chemicals (EDCs) in Maternal and Chils Health, Garima Kachhawa, ICMR, 3 years, 2018-2021, Rs 35 lakhs

8. To evaluate the ROS levels in semen samples and effect of FERTISURE-M on ROS levels and IVF outcome in infertile men undergoing in vitro fertilization—A randomized double-blind placebo-controlled study, Reeta Mahey, AIIMS, 2 years, 2017-2019, Rs 9.4 lakhs

9. To study the prevalence of FSH receptor gene polymorphisms in infertile and fertile Indian women and evaluate response to ovarian stimulation in the infertile subset undergoing IVF/ICSI, Reeta Mahey, SERB, 3 years, 2018-2021, Rs 35 lakhs

10. Assessment of disease severity in patients with epithelial ovarian cancer by EMT related protein expression and micro RNA 200 a,b,c, Seema Singhal, AIIMS, 2 years, 2016-2018, Rs 4 lakhs

11. Effectiveness and safety of 2 vs 3 doses of HPV vaccine in preventing cervical cancer: An Indian Multi-centre randomized trial, Neerja Bhatla, WHO-IARC, 10 years, 2009-2019, Rs 1.93 crores

12. The expression of Human Epididymis protein 4 (HE4) in ovarian carcinoma and correlation with prognosis, Neerja Bhatla, ICMR, 2 years, 2017-2019, Rs 3.19 lakhs


14. Rapid point of Care Detection of HPV-Associated Malignancies, Neerja Bhatla, Arizona University, NCI, USA, 2 years, 2017-2019, Rs 56.59 lakhs

15. A Phase-II/III, Partially Double-blind, Randomized, Active-controlled, Multicentric Study to Assess the Immunogenicity and Safety of SIIPL’s qHPV Vaccine Administered Intramuscularly in Healthy Volunteers According to a Two-dose Schedule to Cohort 1 (Girls and Boys Aged 9-14 years) and a Three-dose Schedule to Cohort 2 (Women and Men Aged 15-26 years) as Compared to Merck’s HPV6 November 16/18 vaccine (Gardasil®), Neerja Bhatla, Serum Institute of India Pvt Ltd, Pune, 5 years, 2018-2023, Rs 9.69 lakhs

16. Implementation of WHO ANC Model using web based application in primary, secondary and tertiary health care levels by trained health care providers, semi-skilled healthcare providers and community health workers, K Aparna Sharma, DST, 2 years, 2018-2020, Rs 19.75 lakhs

17. A prospective study to develop a preeclampsia prediction model for the Indian population based on contingent utilisation of historical factors and biophysical and biochemical parameters, K Aparna Sharma, AIIMS, 2 years, 2018-2020, Rs 3.5 lakhs

18. Prevalence of cytological lesion and HPV type in vulval lesion on visual inspection and colposcopy, Rajesh Kumari, AIIMS, 2 years, 2016-2018, Rs 4 lakhs

Completed

1. Placental growth factor as a predictive and prognostic marker for development of pre-eclampsia in high risk patients, Jyoti Meena, AIIMS, 2 years, 2016-2018, Rs 4 lakhs

2. Evaluation of quantitative detection of HR-HPV oncogene over-expression as an emerging novel biomarker for cervical cancer screening, Neerja Bhatla, Cure Health Diagnostics, 4 years, 2014-2019, Rs 35 lakhs

Departmental projects

Ongoing

1. A comparative pilot study of autologous rectus fascia pubovaginal sling and transobturator vaginal tape procedure in women with stress urinary incontinence
2. A comparative pilot study of TOT vs rectus fascia pubovaginal sling surgery in patients with urodynamically proven SUI
3. A comparative study of solifenacin and tolterodene in the treatment of over active bladder syndrome
4. A crossover randomized study of portable transvaginal colposcope and hand-held colposcope for evaluation of Cervical Intraepithelial Neoplasia
5. A pilot study comparing 5 mm telescope and 2.9 mm telescope in chronic pelvic pain
6. A prospective randomized control trial to compare the efficacy of darifenacin versus mirabegron for treatment of overactive bladder
7. A prospective study of fetal cardiac profiling in appropriately grown, small for gestational age and growth restricted fetuses and its association with perinatal outcome
8. Comparison of quality of antenatal care delivered based on a web based application compared to the standard care protocol: A pilot study
9. Comparison of cervical shear wave elastography, bishop score, and transvaginal cervical length measurement for prediction of successful labor induction: A pilot study
10. Comparison of letrozole plus Gonadotropins versus Gonadotropins alone for controlled ovarian stimulation in PCOS women undergoing IVF-ICSI cycles—A randomized controlled trial
11. Comparison of myo-inositol plus metformin versus Myo-inositol alone in PCOS women undergoing ovulation induction and IUI cycles—A randomized controlled trial
12. Comparison of skin closure technique in caesarean
13. Comparison of various modalities to diagnose occult stress urinary incontinence in pelvic organ prolapse
14. Correlation of fetal soft tissue thickness measured Sonographically with neonatal body composition
15. Correlation of first trimester metabolic parameters and maternal body fat indices with development of gestational diabetes mellitus in Asian Indian women—A comparative study
16. Evaluation of efficacy and feasibility of implementation of Enhanced Recovery After Surgery (ERAS) protocol in women undergoing gynaecological surgery
17. Evaluation of placental elastography and placental vascularisation index in fetal growth restricted pregnancy: A case control study
18. Female sexual dysfunction in women with urinary incontinence
19. Placental growth factor, uterine artery Doppler and 3D power Doppler of placenta for prediction of pre-eclampsia in high risk
20. Prediction of adverse perinatal outcome by cerebroplacental ratio in term pregnancy
21. Prevalence and prognostic significance of Herzen in Ca Endometrium
22. Prevalence of mental health problems (Anxiety, Depression and Stress Reaction) in mothers of preterm infants admitted to NICU: A cross sectional study
23. Prospective randomized comparative study using ‘THUNDERBEAT TECHNOLOGY; HARMONIC ACE’ and ‘LIGASURE DEVICE’ During Total Laparoscopic Hysterectomy for the Treatment of Benign Diseases of the Uterus—A pilot study
24. Psychosocial stress and lipid profile as predictors of adverse pregnancy outcomes
25. Role of Gene Xpert in diagnosis of female genital tuberculosis as compared to other conventional diagnostic techniques
26. Role of Myo-inositol In the treatment of gestational diabetes mellitus compared to medical nutrition therapy alone in Asian Indian Women: A pilot study
27. To compare letrozole plus gonadotrophins versus gonadotrophins alone for controlled ovarian stimulation among PCOS women undergoing undergoing IVF-ICSI cycles—A randomized trial
28. To evaluate exhaled air carbon monoxide level in pregnancy and correlate with maternal and fetal outcome: A pilot study
29. To evaluate the efficacy of Myoinositol in treatment of gestaional Diabetes Mellitus in Asian Indian Women: A pilot study
30. To evaluate the role of low dose aspirin in prevention of pre eclampsia in women who screen positive for pregnancy induced hypertension: A randomized controlled trial
31. To study the prevalence of FSH receptor gene polymorphisms in infertile and fertile Indian women and evaluate response to ovarian stimulation in the infertile subset undergoing IVF/ICSI
32. To study the role of 3D endometrial volume and 2D endometrial thickness in IVF patients
33. To study the role of Myo-Inositol-D-Chiro-Inositol combination versus Combined oral contraceptives on clinico-hormonal and metabolic parameters in Young Asian-Indian Girls with Polycystic Ovary Syndrome

**Completed**

1. A comparative study of burchcolposuspension and transobturator vaginal tape procedure in women with stress urinary incontinence
2. A comparative study of prevalence of human papillomavirus infection and precancerous lesions of vulva and cervix in HIV positive and HIV negative women
3. A comparative study of the treatment of gestational diabetes mellitus by metformin vs insulin: A randomized control trial
4. A study of the acceptability and feasibility of opportunistic cervical cancer screening in pregnancy by conventional pap smear and HPV DNA testing
5. Assessment of lower segment cesarean scar by transvaginal ultrasound and MRI
6. Assessment of tubal patency with selective chromo perturbation at office hysteroscopy compared with modified mini laparoscopy in infertile women
7. Comparison of the efficacy of 2.5 MG versus 5 MG Ulipristal Acetate in the treatment of Symptomatic Uterine Fibroids
8. Evaluation of Enterleukin-6 and VEGF levels in Ascitic Fluid of patients with Epithelial Ovarian Cancer
9. Evaluation of HE-4 and CA-125 in women with endometrial carcinoma
10. Expression of biomarkers in endometrial hyperplasia and carcinoma
11. Interventional study on the effect of antitubercular treatment on endometrium, Fallopian Tubes and ovaries in Genital Tuberculosis
12. Prospective randomized comparative study of hysteroscopic myomectomy using unipolar system and bipolar system
13. Role of MRI in evaluation and quantification of vault prolapse in women with previous hysterectomy
14. Role of MRI in evaluation of vault prolapse and its relationships with POPQ classification and operative finding
15. Role of transdermal testosterone gel pretreatment in poor responders on IVF outcome—A prospective randomised control trial with active control
16. Study of association between insulin sensitivity and cardio-vascular risk factors in lean versus overweight subjects with polycystic ovarian syndrome
17. To compare efficacy of Tolterodine and Solefanacin in patients with overactive bladder syndrome
18. To compare the efficacy of ulipristal acetate versus GnRH agonist in women with symptomatic uterine myoma and post treatment follow-up: A prospective randomized control study
19. To compare the hormonal and metabolic outcomes in Metformin plus Myoinositol vs Metformin alone and fertility outcome in PCOS women undergoing OVI and IU1 cycles
20. To evaluate the efficacy of Cabergoline as compared to GnRH agonist in women with endometriosis: A prospective randomised controlled trial
21. To evaluate the reproductive outcome of IVF ICSI cycles using ejaculated sperm ICSI versus Percutaneous Epididymdal Sperm (PESA ICSI) in male factor infertility
22. To evaluate the role of endometrial scratching in the outcome of In Vitro Fertilization Cycles (IVF-ET)
23. Vitamin D level in women with stress urinary incontinence and effect of vitamin D supplementation

**Collaborative projects**

**Ongoing**

1. A randomized pilot study to evaluate the efficacy of amniotic membrane as an alternative wound dressing in patients with large posttraumatic raw area at Level 1 Trauma Centre, JPNATC
2. A randomized, open label, assessor-blind, parallel group, multi-centre Phase III study to compare the efficacy and safety of r-hMG and HP-hMG in subjects undergoing controlled ovarian stimulation for ART, Bharat Serum Pharmaceuticals, India
3. Analysis of vaginal microbiome and metabolome in women in affected with bacterial vaginosis before and after treatment and their correlation with relapse or recurrence, Dermatology and Venereology
4. Assessment of BRCA and Non-BRCA mutations with multi gene panel testing in patients of ovarian cancer: A cross-sectional observational study, IRCH
5. Association of HIPEC treatment with expression of T regulatory cells (FOXP3) in epithelial ovarian cancer and its clinical significance, Surgical Oncology, IRCH
6. Biomarkers of polycystic ovarian syndrome, Reproductive Biology
7. Comparing the vascularization potential of MSCs and MAPCs in monoculture and coculture systems with human OECs under normoxia and hypoxia, DBT
8. Effectiveness of Intravenous Ferric Carboxy Maltose (FCM) in improving haemoglobin level among postpartum women with moderate to severe anaemia at a Sub District Hospital, Faridabad, Haryana—An interventional study, Community Medicine
9. Effectiveness of intravenous iron sucrose in the treatment of moderate anemia among pregnant women attending sub-district hospital in Haryana, North India, Community Medicine
10. Endometrial neurotrophic factors and nerve fibres in endometriosis associated pain, ICMR
11. Etiological evaluation of Nonimmune Hydrops Fetalis (NIHF), Paediatrics
12. Etiopathology of hyperprolactonemia/Macroprolactonemia, Reproductive Biology
14. External delivery of Cisplatin using Human Papilloma Virus (HPV 16) based nanocarriers for treatment of cervical cancer, AIIMS-IIT-Delhi Inter Institutional Collaborative Research Grant proposal with Department of Anatomy
15. Genetic determinant of premature ovarian failure, Reproductive Biology
16. HPV vaccination among 9-15 years old girl child under below poverty line in Delhi/NCR: Intervention for primary prevention of cervical, Radiation Oncology, IRCH
17. Hypoxia Adaptation and Pregnancy Outcome Study (HAPS) an investigation of the influence of hypoxia on birth weight, Paediatrics
18. ICD-11 categories on female sexual disorders: Evaluation of validity, reliability and utility of ICD-11 proposed diagnostic guidelines among Indian Women, Psychiatry
19. Magnetic nanoparticles and quantum dots coupled visual confirmation of cervical cancer cells from cytology sample: A cost effect, quick and suitable test for Rural Indian setup, Anatomy
20. Metabolic abnormalities and sleep disorders in PCOS, Medicine
21. Molecular basis of estrogenism in endometriosis, Physiology
22. Molecular characterization of Endometrial Cancer and to correlation with Clinico pathological features, Pathology
23. R2TP complex as a target of human papilloma virus oncoproteins E6 and E7, DST
24. Role of Hydrogen Sulphide as a pharmacological modulator in adverse pregnancy outcomes like pre-eclampsia, Anatomy
25. Role of mesenchymal stem cells in animal models of hypoxia induced brain injury: Implications for translation: HIBI initiative, DBT
26. Safety and efficacy of low dose intrathecal anesthesia for outpatient laparoscopic tubal ligation, Anaesthesiology
27. SOPs to study Very Small Embryonic-Like Stem Cells (VSELs) in various adult tissues, ICMR
28. STAT3 regulation via miRNAs in ovarian cancer stem cells: A therapeutic approach, Reproductive Biology
29. Study of bone mass in Asian Indian Newborn Subjects—A hospital-based study, Endocrine and Metabolism
30. Study of genome-wide transcriptional landscape of ovarian endometriosis, Physiology
31. To develop a strategy for post-partum follow up of women with history of gestational diabetes mellitus by using the right test and frequency of testing and developing patient centric approach after incorporating their views, Endocrinology and Metabolism

Completed

1. A study on distribution of glucose tolerance among women with history of gestational diabetes mellitus by IADPSG criteria/overt diabetes in pregnancy and their spuses, Endocrinology and Metabolism
2. A study on treatment of genital tuberculosis: A randomized controlled trial of either discontinuation at 6 months or continuation at 9 months after initial response to 6 months RNTCP category I treatment, Central TB Division, MOHFW
3. Cross sectional study on new tumor markers (CEA, CA19.9 CA 15.3) in women with genital tract malignancies, IMRG, AIIMS
4. Cross sectional study on various nutritional markers in women with genital tract malignancies, IMRG, AIIMS
5. Exploring the role of proteomic signature in Saliva: Step towards non-invasive diagnostic tool for ovarian cancer, ICMR
7. Role of metabolic imaging in patient’s with undiagnosed abdominal pain, Surgery

PUBLICATIONS
Journals: 50    Abstracts: 3    Chapters in Books: 3    Book: 1

PATIENT CARE
Facilities available in the department (including special clinics and/or special laboratory facilities)

Colposcopy – 735
Cryotherapy – 26
Thermal Ablation – 15
LEEP – 15

Community services/camps
AOGIN-India Cervical Cancer Screening Camps in collaboration with Kalyanmayee and Airport Authority of India
1. Sangam Vihar, New Delhi - 26 May 2018
2. Chawri Bazar, New Delhi - 1 December 2018
3. Sri Niwas Puri, New Delhi - 29 December 2018
4. Kapashera, New Delhi - 13 February 2019

Details of patient care services during 2018-2019

Patients’ attendance by type of clinics

<table>
<thead>
<tr>
<th>Clinics</th>
<th>Number of days/week</th>
<th>New patients</th>
<th>Old patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>General OPD</td>
<td>6</td>
<td>36,691</td>
<td>99,958</td>
</tr>
<tr>
<td>High Risk Pregnancy Clinic</td>
<td>3</td>
<td>2,056</td>
<td>10,206</td>
</tr>
<tr>
<td>Gynae Endocrine Clinic</td>
<td>3</td>
<td>27</td>
<td>242</td>
</tr>
<tr>
<td>Gynaecological Cancer Clinic</td>
<td>2</td>
<td>795</td>
<td>3,617</td>
</tr>
<tr>
<td>IVF Clinic</td>
<td>1</td>
<td>4,321</td>
<td>1,147</td>
</tr>
<tr>
<td>ANC</td>
<td>3</td>
<td>758</td>
<td>2,912</td>
</tr>
<tr>
<td>URO Gynae Clinic</td>
<td>1</td>
<td>151</td>
<td>427</td>
</tr>
<tr>
<td>Family Welfare Clinic</td>
<td>6</td>
<td>4,789</td>
<td>4,011</td>
</tr>
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</table>

Maternal Health performance

<table>
<thead>
<tr>
<th>Type of services</th>
<th>No. of pregnant women benefited</th>
</tr>
</thead>
<tbody>
<tr>
<td>TT 1st dose</td>
<td>1,245</td>
</tr>
<tr>
<td>TT 2nd dose</td>
<td>1,097</td>
</tr>
<tr>
<td>Given IFA tablets</td>
<td>2,308</td>
</tr>
<tr>
<td>Detected with hypertension (BP &gt;140/90) and managed</td>
<td>260</td>
</tr>
<tr>
<td>Eclampsia cases managed</td>
<td>90</td>
</tr>
<tr>
<td>Tested for haemoglobin</td>
<td>2,416</td>
</tr>
<tr>
<td>Treated with haemoglobin &lt;11</td>
<td>647</td>
</tr>
<tr>
<td>Treated with haemoglobin &lt;7</td>
<td>24</td>
</tr>
<tr>
<td>Tested for OGTT</td>
<td>2,416</td>
</tr>
<tr>
<td>Treated for GDM</td>
<td>435</td>
</tr>
<tr>
<td>Given insulin of the GDM positives</td>
<td>128</td>
</tr>
<tr>
<td>Tested using POC test for syphilis</td>
<td>2,416</td>
</tr>
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List of minor and major surgeries performed during 2018-2019

**Fetal Medicine**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Total</th>
<th>Procedure</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amniocentesis</td>
<td>160</td>
<td>Intrauterine Transfusion</td>
<td>131</td>
</tr>
<tr>
<td>Cordocentesis</td>
<td>38</td>
<td>Ovarian Cyst Aspiration</td>
<td>57</td>
</tr>
<tr>
<td>Chorionic Villus Sampling</td>
<td>274</td>
<td>Others</td>
<td>37</td>
</tr>
<tr>
<td>Fetal Reduction</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>714</strong></td>
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<td></td>
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**Minimally Invasive (Minor Surgeries)**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
<th>Procedure</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesiolysis</td>
<td>4</td>
<td>Cannulation</td>
<td>3</td>
</tr>
<tr>
<td>Cystoscopy + Vaginoscopy</td>
<td>1</td>
<td>Gonadectomy</td>
<td>1</td>
</tr>
<tr>
<td>Diagnostic Hysteroscopy + Cystoscopy</td>
<td>1</td>
<td>Diagnostic Hysteroscopy</td>
<td>1,381</td>
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<tr>
<td>Diagnostic Hysteroscopy + MOCK ET</td>
<td>28</td>
<td>Hysteroscopic Adhesiolysis</td>
<td>24</td>
</tr>
<tr>
<td>Hysteroscopic IUCD Removal</td>
<td>3</td>
<td>Hysteroscopic Myomectomy</td>
<td>30</td>
</tr>
<tr>
<td>Hysteroscopic Septal Resection</td>
<td>19</td>
<td>Hysteroscopic Polypectomy</td>
<td>41</td>
</tr>
<tr>
<td>Laparoscopic Ovarian Abscess Drainage</td>
<td>1</td>
<td>IUCD Removal</td>
<td>4</td>
</tr>
<tr>
<td>Laparoscopic Rudimentary Horn Excision</td>
<td>1</td>
<td>Laparoscopic Ovarian Drilling</td>
<td>17</td>
</tr>
<tr>
<td>Laparoscopic Salpingectomy/Clipping</td>
<td>78</td>
<td>Laparoscopic Salpingectomy</td>
<td>10</td>
</tr>
<tr>
<td>Laparoscopy for Infertility (Operative)</td>
<td>68</td>
<td>Laparoscopy-Diagnostic</td>
<td>733</td>
</tr>
<tr>
<td>Myomectomy</td>
<td>1</td>
<td>Mesh Repair</td>
<td>1</td>
</tr>
<tr>
<td>Tuboplasty</td>
<td>2</td>
<td>Polypectomy</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,468</strong></td>
<td></td>
<td></td>
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</tbody>
</table>

**Minimally Invasive (Major Surgeries)**

<table>
<thead>
<tr>
<th>Name of Surgery</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laparoscopy + AFC + Peritoneal Bx + Omental Biopsy</td>
<td>1</td>
</tr>
<tr>
<td>With Pelvic Lymphadenectomy</td>
<td>22</td>
</tr>
<tr>
<td>B/L Laparoscopic Salpingoophorectomy (Risk Reducing)</td>
<td>5</td>
</tr>
<tr>
<td>Diagnostic Laparoscopy + Hysteroscopy + Rudimentary Horn Excision</td>
<td>3</td>
</tr>
<tr>
<td>Hysteroscopic IUCD Removal</td>
<td>7</td>
</tr>
<tr>
<td>Hysteroscopic Polypectomy</td>
<td>24</td>
</tr>
<tr>
<td>Hysteroscopic Septal Resection</td>
<td>32</td>
</tr>
<tr>
<td>Hysteroscopy Assisted Vaginoscopic Septal Resection</td>
<td>5</td>
</tr>
<tr>
<td>Interval Debulting for Carcinoma Ovary</td>
<td>10</td>
</tr>
<tr>
<td>Jeffcoat’s Vaginoplasty + Vaginal Septal Resection</td>
<td>1</td>
</tr>
<tr>
<td>Lap VVF Repair + Cystoscopy</td>
<td>2</td>
</tr>
<tr>
<td>Laparoscopic Cystectomy</td>
<td>152</td>
</tr>
<tr>
<td>Laparoscopic (R) Hemihysterectomy</td>
<td>1</td>
</tr>
<tr>
<td>Laparoscopic Abdominal Cerclage</td>
<td>2</td>
</tr>
<tr>
<td>Laparoscopic Adenomyomectomy</td>
<td>7</td>
</tr>
<tr>
<td>Laparoscopic Bursch Colposuspension</td>
<td>2</td>
</tr>
<tr>
<td>Laparoscopic Cervicovaginoplasty</td>
<td>3</td>
</tr>
<tr>
<td>Procedure</td>
<td>Number</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Laparoscopic Cervicovaginoplasty/Vaginoplasty</td>
<td>2</td>
</tr>
<tr>
<td>Laparoscopic Extrafascial Hysterectomy + BSO + Pelvic/Para-Aortic Lymphadenectomy</td>
<td>1</td>
</tr>
<tr>
<td>Laparoscopic Extrafascial Hysterectomy + BSO + B/L Pelvic Lymphadenectomy</td>
<td>6</td>
</tr>
<tr>
<td>Laparoscopic Gonadectomy</td>
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<tr>
<td>Laparoscopic Myomectomy</td>
<td>74</td>
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<tr>
<td>Laparoscopic Ovariectomy</td>
<td>21</td>
</tr>
<tr>
<td>Laparoscopic Radical Hysterectomy (Type-C) + BSO + B/L Pelvic Lymphadenectomy</td>
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</tr>
<tr>
<td>Laparoscopic Rudimentary Horn Excision</td>
<td>7</td>
</tr>
<tr>
<td>Laparoscopic Sacrohysteropexy/Sacrocolpopexy</td>
<td>4</td>
</tr>
<tr>
<td>Laparoscopic Salpingectomy</td>
<td>19</td>
</tr>
<tr>
<td>Laparoscopic Scar Ectopic Excision</td>
<td>1</td>
</tr>
<tr>
<td>Laparoscopic Tubal Recannulation</td>
<td>3</td>
</tr>
<tr>
<td>Laparoscopicadenomyomectomy</td>
<td>1</td>
</tr>
<tr>
<td>Laparoscopy + Hysteroscopy + CuT Removal</td>
<td>4</td>
</tr>
<tr>
<td>Laparoscopy + Radical Hysterectomy + Pelvic Lymphadenectomy</td>
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</tr>
<tr>
<td>Laparoscopy + Hysteroscopic Adhesiolysis</td>
<td>5</td>
</tr>
<tr>
<td>Laparoscopy + PWC + Omental Bx</td>
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</tr>
<tr>
<td>Laparoscopy Assisted Vaginoscopic Septal Resection</td>
<td>6</td>
</tr>
<tr>
<td>Laparotomy + Extrafascial Hysterectomy + Pelvic/Para-Aortic Lymphadenectomy</td>
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<tr>
<td>Laparotomy + Radical Hysterectomy + Pelvic Lymphadenectomy</td>
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<tr>
<td>Open Salpingectomy</td>
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<tr>
<td>Open Tubal Recanalization</td>
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<tr>
<td>Ovarian Surgeries</td>
<td>16</td>
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<tr>
<td>Peripartum Hysterectomy</td>
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<tr>
<td>Primary Debulking for Carcinoma Ovary</td>
<td>20</td>
</tr>
<tr>
<td>Second Look Surgery</td>
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</tr>
<tr>
<td>Subtotal Hysterectomy</td>
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</tr>
<tr>
<td>TLH+Salpingectomy</td>
<td>82</td>
</tr>
<tr>
<td>TLH+U/L or B/L Salpingo-Oophorectomy</td>
<td>66</td>
</tr>
<tr>
<td>Total Abdominal Hysterectomy</td>
<td>25</td>
</tr>
<tr>
<td>Total Abdominal Hysterectomy + Salpingo-Oophorectomy (U/L or B/L)</td>
<td>9</td>
</tr>
<tr>
<td>Total Laparoscopic Hysterectomy</td>
<td>17</td>
</tr>
<tr>
<td>Total Laparoscopic Hysterectomy + Salpingectomy</td>
<td>4</td>
</tr>
<tr>
<td>Transurethral Resection of Bladder Endometriomalaparoscopy + Hematoma Drainage + Scar Dehisence Repair</td>
<td>1</td>
</tr>
<tr>
<td>U/L Laparoscopic Salpingoophorectomy</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>719</td>
</tr>
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</table>

**Robotic Surgery**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
<th>Procedure</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hysterectomy</td>
<td>2</td>
<td>Hysterectomy + USO/BSO</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
<td></td>
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</tr>
</tbody>
</table>
## Open abdominal procedures

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
<th>Procedure</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uro-Gynecological Surgeries</td>
<td>6</td>
<td>Abdominal Sling Surgery</td>
<td>1</td>
</tr>
<tr>
<td>Abdominal Cervicovaginoplasty</td>
<td>1</td>
<td>Adenomyomectomy</td>
<td>7</td>
</tr>
<tr>
<td>Abdominal Sacrocolpopexy</td>
<td>8</td>
<td>B/L Ovarian Transposition</td>
<td>1</td>
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<tr>
<td>Bursch Colposuspension</td>
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<td>Caesarean Myomectomy</td>
<td>4</td>
</tr>
<tr>
<td>Cystectomy/Ovariectomy U/L or B/L Salpingoopherectomy</td>
<td></td>
<td></td>
<td>28</td>
</tr>
<tr>
<td>Exp Laparotomy + LSO + B/L PLND + Infracolic Omentectomy</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Exp Laparotomy + PWC + Peritoneal Inclusion Cyst Excision</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Exploratory Laparotomy + Bowel Resection Anastomosis</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Bladder Injury Repair</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exploratory Laparotomy + TAH + LSO + Bowel Resection</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>+ Anastomosis + Peritoneal and Abdominal Leiomyoma</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>+ Excision</td>
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</tr>
<tr>
<td>Extrafascial Hystrectomy + BSO + B/L Lymphadenectomy</td>
<td>55</td>
<td>Laparotomy + Peritoneal Wash Cytology + TO Mass Drainage</td>
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<tr>
<td>Fothergill’s Repair</td>
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<td>Laparoscopic Dermoid Cystectomy</td>
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<tr>
<td>Hysterotomy</td>
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<td>Laparoscopic Myomectomy</td>
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<tr>
<td>Interval Debulking for Ca Ovary</td>
<td>80</td>
<td>Laparotomy</td>
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</tr>
<tr>
<td>Laparoscopy Followed by Laparotomy with B/L Endometriotic</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>+ Cystectomy with Cystotomy with Left Haematosalpinx</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ drainage with Left Ureteric Neoimplantation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laparotomy + B/L Rudimentary Horn Excision + Ovarian</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Cystectomy + TO Mass Excision</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laparotomy + Cerclage</td>
<td>3</td>
<td>Laparotomy for Ectopic</td>
<td>14</td>
</tr>
<tr>
<td>Laparotomy + Proceed</td>
<td>1</td>
<td>Minilap Ligation</td>
<td>11</td>
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<tr>
<td>Modified Purandare’s Sling with Round Ligament Plication</td>
<td>1</td>
<td>Rectus Fascia Pubovaginal Sling Surgery</td>
<td>1</td>
</tr>
<tr>
<td>Myomectomy</td>
<td>74</td>
<td>Open Myomectomy</td>
<td>13</td>
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<tr>
<td>Pelvic Hematoma Drainage</td>
<td>1</td>
<td>Purandare Sling Surgery</td>
<td>1</td>
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<tr>
<td>Radical Hysterectomy</td>
<td>18</td>
<td>Recanalisation</td>
<td>8</td>
</tr>
<tr>
<td>Rectus Fascia Sling Surgery</td>
<td>1</td>
<td>Staging Laparotomy for Ca Ovary</td>
<td>72</td>
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<tr>
<td>Staging Laparotomy for Ca Ovary (Fertility Sparing)</td>
<td>6</td>
<td>TAH ± U/L /B/L Salpingooophrectomy</td>
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<tr>
<td>TAH + Cystocele Repair + B/L Uterosacral Plication</td>
<td>1</td>
<td>TAH ± Salpingectomy</td>
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<tr>
<td>Tubal Recanalisation</td>
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<td>Vaginoplasty</td>
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<tr>
<td><strong>Grand Total</strong></td>
<td><strong>643</strong></td>
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## Minor vaginal procedures

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
<th>Procedure</th>
<th>Number</th>
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<tbody>
<tr>
<td>Cystocele Repair</td>
<td>2</td>
<td>TVT-O</td>
<td>8</td>
</tr>
<tr>
<td>Labial Mass Excision</td>
<td>1</td>
<td>Vaginal Cerclage</td>
<td>4</td>
</tr>
<tr>
<td>Mcdonalds Cerclage</td>
<td>4</td>
<td>Vaginal Cyst Excision</td>
<td>1</td>
</tr>
<tr>
<td>Rectovaginal Fistula Repair</td>
<td>1</td>
<td>Vesicovaginal Fistula Repair</td>
<td>2</td>
</tr>
<tr>
<td>Simple Vulvectomy</td>
<td>3</td>
<td>Vulval Hematoma Drainage</td>
<td>1</td>
</tr>
<tr>
<td>Vulval Mass Excision</td>
<td>1</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
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### Major Vaginal Procedures

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
<th>Procedure</th>
<th>Number</th>
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<tbody>
<tr>
<td>Clitoroplasty</td>
<td>1</td>
<td>Complete Perineal Tear Repair</td>
<td>2</td>
</tr>
<tr>
<td>Cystoscopy F/B Vaginal Mass Excision</td>
<td>1</td>
<td>Fothergill Operation</td>
<td>1</td>
</tr>
<tr>
<td>Hymenoplasty</td>
<td>2</td>
<td>Labial Mass Excision</td>
<td>3</td>
</tr>
<tr>
<td>Labiaplasty</td>
<td>1</td>
<td>Labial Separation</td>
<td>1</td>
</tr>
<tr>
<td>Laparoscopic</td>
<td>1</td>
<td>Malignancy</td>
<td>2</td>
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<tr>
<td>McDonalds Cerclage</td>
<td>8</td>
<td>McIndoe’s Vaginoplast</td>
<td>6</td>
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<tr>
<td>Open Sacrocolpopexy</td>
<td>1</td>
<td>Pubo Vaginal Sling</td>
<td>3</td>
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<tr>
<td>Radical Vulvectomy + B/L Inguino Femoral Lymph Node Dissection</td>
<td>10</td>
<td>Radical Excision of Vulva for Malignant Melanoma</td>
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<tr>
<td>Rectovaginal Fistula Repair</td>
<td>2</td>
<td>Sacrospinous Fixation</td>
<td>7</td>
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<tr>
<td>Vaginal Hysterectomy</td>
<td>8</td>
<td>Vaginal Hysterectomy + PFR</td>
<td>100</td>
</tr>
<tr>
<td>Vaginal VVF Repair</td>
<td>1</td>
<td>Vaginoplasty</td>
<td>9</td>
</tr>
<tr>
<td>Vaginoscopy</td>
<td>1</td>
<td>Vaginoscopy</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td>173</td>
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### Other Surgeries

<table>
<thead>
<tr>
<th>Surgery</th>
<th>Number</th>
<th>Surgery</th>
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<tbody>
<tr>
<td>3 Swab Test</td>
<td>6</td>
<td>Amniocentesis</td>
<td>21</td>
</tr>
<tr>
<td>Ascitic Fluid Tapping</td>
<td>2</td>
<td>Bartholin Cyst Excision</td>
<td>26</td>
</tr>
<tr>
<td>Biopsies (Cervical/Vaginal/Vault/Vulval)</td>
<td>84</td>
<td>Biopsies (Vulval/Cervical/Vault)</td>
<td>16</td>
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<tr>
<td>Cervical Polypectomy</td>
<td>13</td>
<td>Conization</td>
<td>9</td>
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<tr>
<td>Chorionic Villus Sampling</td>
<td>27</td>
<td>CuT Removal and Reinsertion</td>
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<tr>
<td>Cordocentesis</td>
<td>6</td>
<td>CPT Repair</td>
<td>11</td>
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<tr>
<td>CS Scar Ectopic Excision</td>
<td>3</td>
<td>Cyst Aspiration</td>
<td>47</td>
</tr>
<tr>
<td>Cystocele Repair</td>
<td>1</td>
<td>Cystoscopy</td>
<td>2</td>
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<tr>
<td>Cystoscopy + Vaginoscopy</td>
<td>1</td>
<td>EA + ECC</td>
<td>43</td>
</tr>
<tr>
<td>EA + ECC + Polypectomy</td>
<td>52</td>
<td>EUA + Cervicovaginoplast</td>
<td>1</td>
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<tr>
<td>Examination Under Anaesthesia</td>
<td>14</td>
<td>Hydrosalphinx Drainage</td>
<td>1</td>
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<tr>
<td>Intrauterine Transfusion</td>
<td>6</td>
<td>Labial Cyst Excision</td>
<td>3</td>
</tr>
<tr>
<td>Lap CS Scar Endometrioma Excision</td>
<td>1</td>
<td>Laparoscopy + TO Mass Excision</td>
<td>1</td>
</tr>
<tr>
<td>Lap Fimbrioplasty</td>
<td>1</td>
<td>LEEP</td>
<td>14</td>
</tr>
<tr>
<td>Malecots Change</td>
<td>4</td>
<td>Manual Removal of Placenta</td>
<td>1</td>
</tr>
<tr>
<td>Mesh Removal Laparoscopic</td>
<td>1</td>
<td>Mesh Removal</td>
<td>1</td>
</tr>
<tr>
<td>Mirena Insertion</td>
<td>104</td>
<td>MOCT ET (Alone)</td>
<td>1</td>
</tr>
<tr>
<td>Mould Change</td>
<td>48</td>
<td>PAP smear</td>
<td>21</td>
</tr>
<tr>
<td>Pigtail Change</td>
<td>1</td>
<td>Pleurocentesis</td>
<td>1</td>
</tr>
<tr>
<td>Pyometra Drainage</td>
<td>34</td>
<td>Radiofrequency Ablation</td>
<td>2</td>
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<tr>
<td>Resuturing</td>
<td>42</td>
<td>Scar Endometriosis Excision</td>
<td>5</td>
</tr>
<tr>
<td>Selective Fetal Reduction</td>
<td>3</td>
<td>Therapeutic D&amp;C</td>
<td>2</td>
</tr>
<tr>
<td>Transverse Vaginal Septum Excision and Jeffcots Vaginoplasty</td>
<td>2</td>
<td>Transverse Vaginal Septum Excision</td>
<td>2</td>
</tr>
</tbody>
</table>
VACC ± CuT 20
Wound Resuturing ± Debridement 10
Total 721

Procedures done in Gynae OPD during 2018-2019

Minor
EA and ECC: 1,577  D&C: 26
IUI: 736  Iron therapy: 263
NST: 4,112

Mirena: 95  VA + Cu T: 72
Colposcopy/Cryo/LEEP: 652  EA + AFB + PCR: 2,701
No. of MTP: 666  PAP smear: 6,235
MOCK ET: 264  Obstetric ultrasound: 10,346
Gynae Ultrasound: 9,481  F-form USG: 3,824

Delivery details
Major (LSCS): 1,314  Minor (Vaginal + Forceps): 1,102
Total deliveries: 2,416

ART Centre
Ovum Pick Up (OPU): 547  Fresh Embryo Transfer: 443
Frozen Embryo Transfer (FET): 74  Others (CA, fetal reduction): 49
Intra-Uterine Insemination (IUI): 196
Total procedures: 1,309

POST PARTUM PROGRAMME
Achievements of different Family Planning Methods, Post Partum Programme

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>CuT</td>
<td>1,012</td>
<td>1,262</td>
</tr>
<tr>
<td>MPA injection 1st dose</td>
<td>57</td>
<td>118</td>
</tr>
<tr>
<td>MPA injection 2nd dose</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>MPA injection 3rd dose</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>MPA injection 4th and more</td>
<td>Nil</td>
<td>4</td>
</tr>
<tr>
<td>Oral pills</td>
<td>698 pkts</td>
<td>446 pkts</td>
</tr>
<tr>
<td>CHAYYA</td>
<td>Nil</td>
<td>30</td>
</tr>
<tr>
<td>Conventional contraceptives</td>
<td>75,350 pieces</td>
<td>75,500 pieces</td>
</tr>
<tr>
<td>Tubectomy</td>
<td>648</td>
<td>676</td>
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AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Sunesh Kumar was peer reviewer for “European Journal of Obstetric, Gynaecology and Reproductive Medicine”; Member, Interview Board for the post of Medical Officer, Union Public Selection Commission (UPSC), New Delhi; Member, Selection Committee for selection of Faculty in Gynaecology at PGI, Chandigarh; Member, Selection Committee for the selection of Faculty in Gynaecology at PGIMER, Rohtak; Member, ICMR Group on Research in Reproductive Medicine; Member, ICMR Research Advisory Committee for Model Rural Health Research Unit (MRHRU), Rajasthan; Member, Bureau of Indian Standard, Ministry of Consumer Affairs, Food and Public Distribution, Government of India; Member, DBT Sub-Group Committee for finalizing the REACH Scheme for Biotechnology based Programme for Women; Member, Technical Specification/Selection Committee at AIIMS, New Delhi; Member, Staff Council Committee at AIIMS, New Delhi; Member, Ethics Committee, AIIMS, New Delhi; Member, Subcommittee on Cancer Cervix, Indian Council of Medical Research, New Delhi; Member, ICMR Committee on Healthcare Quality and Patient Steering Advisory Committee; Member, ICMR Task Force Committee on Implementation of Quality Care in India; Member, Committee to review of Fellowship Programmes at AIIMS, New Delhi.
**Professor Neerja Bhatla:** Students’ won (i) FIGO Chien-Tien-Hsu Fellowship 2018-XXII FIGO World Congress of Gynecology and Obstetrics, Rio de Janeiro, Brazil, Dr Jayashree Natarajan, 2018; (ii) Certificate of Commendation for Poster Presentation, 1st Annual AIIMS Research Day, Dr Shainy Peyyala, 2019; Professor Bhatla was Chairperson, Gynecologic Oncology Committee, FIGO (2015-2018), Council Member, Asian Society of Gynecologic Oncology (2017-2019); Secretary-General, International Federation of Cervical Pathology and Colposcopy (2017-2020); delivered the 1st Dr SK Das Oration on Elimination of Cervical Cancer, New Delhi, 14 August 2018; Member of (i) XXII FIGO World Congress 2018, Brazil, Scientific Track—Gynecological Oncology; (ii) FIGO Regional Congress of Middle East and Africa 2018, U.A.E.; (iii) ASGO 5th International Workshop on Gynecologic Oncology 2018, Korea; (iv) Co-Chairperson, Scientific Committee, International Federation of Cervical Pathology and Colposcopy (IFCPC) India 2020; (v) Scientific Advisory Board (SAB), Indian Council of Medical Research; (vi) Strategic Advisory Group of Experts (SAGE) Working Group on HPV vaccines, WHO; (vii) WHO Working Groups for Cervical Cancer Elimination Initiative; (viii) MCI Board of Governors appointed PG/UG Expert Committee, Medical Council of India; (ix) NTAGI Standing Technical Sub-Committee on the systematic review of HPV disease burden; (x) Technical Expert Committee for NPCDCS under chairmanship of DGHS; (xi) Expert Group Committee for reviewing content of online screening modules/course being developed by NCI under NIH of US and MoHFW; (xii) Expert Group Member for Standard Treatment Workflow (STWs) for various levels of health care, ICMR and MoHFW; (xiii) Technical Expert Group on HPV vaccination, Directorate of Health and Family Welfare, Punjab, Chandigarh; (xiv) HPV Vaccination Programme by State Technical Advisory Group on Immunization (STAGI)–Delhi; (xv) Technical Expert Committee for National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Disease and Stroke (NPCDCS) MoHFW.

**Professor Vatsla Dadhwal** was Member SEC (Reproductive and Urology); Member for AEFI Committee; Chairperson Fetal Medicine and Genetics Subcommittee of AOGD; Assistant Editor Journal of Fetal Medicine; Expert for faculty interview conducting by North DMC Medical College on 7 February 2019; External Examiner for conducting Internal Appraisal Exam for DNB students in Obstetrics and Gynaecology on 7 March 2019 at Artemis Hospital, Gurgaon; Workshop on Strengthening Maternal Nutrition Services in Antenatal Care Health Care Delivery Platforms (PMSMA and ANC at Facility and Community Level) organized by Ministry of Health and Family Welfare and National Centre of Excellence and Advanced Research on Diets on 30 and 31 July 2018 in Vivanta by Taj-Ambassador, New Delhi; Co-Guide for ongoing Thesis (8); Co-Guide for completed thesis: (1); Doordarshan for live programme “Doctor Online” (Live Phone-in) on “Nutrition of Pregnant Women” on 17 September 2018 (Monday) at 5:30 pm to 6:30 pm; Doordarshan for live programme “Health Show” (Live Phone-in) on “Polycystic Ovarian Diseases (PCOD)” on 12 January 2019 (Saturday) at 5:00 pm to 5:30 pm.

**Professor JB Sharma** was examiner for (i) MRCOG Part 2 OSCE Examination, on November 2018, New Delhi; (ii) MRCOG Part 1 and 2 Examination on 2 and 3 July 2018 at Apollo Hospital, New Delhi; (iii) MS Obst and Gynae Examination on 26 June 2018 at BRD Medical College, Gorakhpur, Uttar Pradesh; Chief-guide for ongoing (5) and completed thesis (4); Co-guide for completed projects (8).

**Dr K Aparna Sharma** received Gold Medal for paper presentation in the miscellaneous category “A prospective study of aortic isthmus doppler changes in appropriately grown and small for gestational age foetuses and association with perinatal outcome” in the 40th Annual Conference of AOGD, 24 November 2018, New Delhi; FIGOS-IAEC-Sun International Travelling Fellowship, 2018-2019; “Leader of tomorrow Award” at North Zone Yuva FOGSI, 1 February 2019, Noida; Keynote Address in the North Zone Yuva FOGSI on 1 February 2019, NOIDA; Nominated to attend second meeting of the QED network for improvement in maternal child and Newborn Health, 12-15 March, Ethiopia; Executive Committee Member, Society of Fetal Medicine; Joint Secretary, AOGD; Member, Fetal Medicine and Genetics Subcommittee of AOGD; Assistant Editor, Journal of Fetal Medicine; Invited for an extension lecture on “Quality Improvement in Health Care” to JN Medical College, AMU, Aligarh; Created online modules for SET facility and conducted Hands-On Skill based training to undergraduates in Gynaecology rotation postings; Created modules on: Per Vaginal Examination, Cu-T insertion, Episiotomy repair; Part of the core team for Quality Improvement activities in the Institute. As a part of this:

Conducted projects to improving the content of care and experience of care in the labor ward: LR documentation, LR communication, Implementation of surgical safety checklist in the maternity OT, Implementation of surgical safety checklist in the Fetal Medicine OT, Implementation of birth companion; Part of the National Mentoring Group for the implementation of Laqshya Labor Room quality improvement initiative launched by the Government of India; Conducted training for more than 50 medical colleges on the quality improvement methodology for implementation of laqshya in labor rooms throughout the country; Conducted webinars for remote mentoring: Improving the quality of MNCH in the South East Asia Region, 17 May 2018; Webinar for coaching plan in SEARO region: 5 June 2018; Follow-up Webinar for Laqshya Medical College Roll Out; 24 October 2018.
Dr Garima Kachhawa awarded 3rd prize for best paper presentation for “Risk factors for induced preterm delivery in pregnant women with chronic kidney disease: A retrospective analysis”, (Anju Singh, Garima Kachhawa, Nisha Malik, Reeta Mahey, Vidushi Kulshreshtha, Rajesh Kumari, Neerja Bhatla, Alka Kriplani) at North Zone Yuva FOGSI on 1-3 February 2019, Noida; Project Secretary, Post Partum Programme from 1 February 2018 for two years; Organized 32nd (16-21 April 2018) and 33rd (4-9 June 2018) WHI Training course in Minimally Invasive Gynaecology 2018, Department of Obstetrics and Gynaecology, AIIMS (Treasurer); 5th National Conference Gynaec Endocrinology—GESICON 2018 organised by the Gynaec Endocrinology Society of India (GESI) and Pune Obstetrics and Gynaecological Society (POGS) held on 15-17 June 2018, Pune (Organizing Secretary and Joint Treasurer); ‘Hysteroscopy’ Pre-Congress AOGID Workshop, Organized by Department of Obstetrics and Gynaecology and Association of Obstericians and Gynaecologists of Delhi on 22 November 2018, AIIMS, New Delhi (Organizing Secretary); Compiled an Evaluation Proforma for assessment of Clinical Skills of Junior Residents; Developed a Skill Enhancement Proforma for Senior Residents to track their learning and to provide individualized training in the department; 

Dr P Vanamail reviewed 10 manuscripts for IJMR; DC member of a PhD candidate from Biochemistry Department; DC member of a PhD Candidate from Obst and Gynaec; Co-Guide for a PhD candidate from Biostatistics; Chaired scientific session on, ‘Statistical Methods for count data/Machine learning techniques’, 36th Annual Conference of Indian Society for Medical Statistics, NIMHANS, Bengaluru (1-3 November 2018); Co-guides for MD/DM candidates: Thesis completed: Six; Ongoing Thesis: Ten.

Dr Vidurshi Kulshrestha was Co-Convenor, Pre-conference Workshop on Abnormal Uterine bleeding 5th National Conference Gynaec Endocrinology-GESICON 2018 organised by Gynaec Endocrinology Society of India (GESI) and Pune Obstetrics and Gynaecological Society (POGS), Pune, 15 June 2018; Organizing Secretary—Preconference AOGD Workshop on Hysteroscopy, Organized by Department of Obstetrics and Gynaecology, AIIMS, New Delhi and Association of Obstetricians and Gynaecologists of Delhi, New Delhi, 23 August 2018; Awarded prize for best poster as 1st author on ‘Letrozole for successful medical management of sciatica due to extrapelvic endometriosis’ at 5th National Conference Gynaec Endocrinology-GESICON 2018 organised by Gynaec Endocrinology Society of India (GESI) and Pune Obstetrics and Gynaecological Society (POGS) held on 15-17 June 2018, Pune; Awarded prize for the best paper as co-author on Risk Factors for Induced Preterm Delivery in Pregnant women with Chronic Kidney Disease: Retrospective Analysis”, North Zone YUVA FOGSI 2019 held on North Zone YUVA FOGSI 2019, Noida; Facilitator/ Faculty for the following: Faculty, Medical Board, AIIMS for new entrants for MBBS, BSc Nursing, Optometry, Medical Technology in radiography courses, (2014 onwards); Facilitator, Gurukul Classes in session on contraception, organized by Sir Ganga Ram Hospital under the aegis of ISOPARB and IMS Delhi Chapter, 30 June 2018, New Delhi; Quality Improvement (QI): Instrumental in Quality Improvement Initiative of the Department; SET facility team member: Drafted skill module for conduct of vaginal delivery for UG teaching which has been tested in Trial-3 on 20-21 December 2018; Facilitator, in LaQshya Orientation workshop cum Training for Medical Colleges using POCQI model for quality improvement methodology, 21-22 January 2019.

Dr Seema Singhal was editor and web editor for AOGIN India 2018-2020; Member FOGSI Gynecologic Oncology Committee; Member Subject Expert Committee Reproductive and Urology of the Drug Controller of India; Member Endometriosis Committee AOGD; Reviewer, Minimally Invasive Surgery, Indian Obstetrics and Gynecology; IHI certified QI faculty; Expert member for drafting Daksh advanced skill module organized by WHO-MOHFW-LSTM; Expert member for drafting LSAS curriculum organized by MOHW; Expert member for drafting revised Emoc curriculum by MOHW.

Dr Jyoti Meena drafted skill module for conduct of normal vaginal delivery for UG teaching through eSET facility.

Dr Juhi Bharti was Organising Secretary for International Conference cum Workshop 3rd FERTICON 2019 (First live workshop on surgical sperm retrieval), 2-3 February 2019 at AIIMS, New Delhi; Drafted skill module for pelvic examination and episiotomy repair for UG teaching through eSET facility.

Dr Rohini Sehgal was Chairperson of Advisory Committee for South District under PC and PNDT Act 1994 for three years from 31 October 2016 to 31 October 2019; Member, maternal Death review Committee at District Magistrate level for South District Delhi as FOGSI representative.
9.25. Orthopaedics

Professor and Head
Rajesh Malhotra

Professors
Hira Lal Nag
Ravi Mittal

Associate Professors
Bhavuk Garg
Mohammed Tahir Ansari

Assistant Professors
Vijay Kumar Digge
Vikrant Manhas
Vivek Shankar
Venkatesan Sampath Kumar

EDUCATION
CMEs/Workshop/Symposia/National and International Conferences

1. 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi

2. Symposium on Geriatric Trauma Care, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi

3. Symposium on Geriatric Physiotherapy and Rehabilitation, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi

4. Symposium on Geriatric Nursing, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi

5. Symposium on Bone Malignancy in Elderly, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi

6. Symposium on Geriatric Foot and Ankle, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi

7. Symposium on Geriatric Hand, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi

8. Cadaver Courses: Knee, Hip and Trauma, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi

9. DOACON 2018, 22-24 November 2018 at AIIMS, New Delhi

10. Uni Talk Uni-compartmental Knee Arthroplasty: The state of the Art on 23 March 2019 at JPNATC, New Delhi

Lectures delivered
Rajesh Malhotra

1. Proximal Femoral Allograft in Revision THA, 20th Biennial Congress of Asia Pacific Orthopedic Association Meeting, 10-14 April 2018, Antalya, Turkey

2. Takedown of fused hips, 20th Biennial Congress of Asia Pacific Orthopedic Association Meeting, 10-14 April 2018, Antalya, Turkey
3. Problems with Fragility Fractures about the Hip Joint, 20th Biennial Congress of Asia Pacific Orthopedic Association Meeting, 10-14 April 2018, Antalya, Turkey
4. Tissue donation, banking and transplant, Training of Transplant Coordinator Course, 24-28 April 2018, NOTTO Training Centre, New Delhi
9. Clinical Management Treatment-I, Osteoporosis Essentials Course, 6 May 2018, Mumbai
10. Principles of DXA interpretation and reporting, Osteoporosis Essentials Course, 6 May 2018, Mumbai
11. UKA: Are all contraindications suitable? Oxford Knee Course, 8-9 June 2018, Ganga Hospital, Coimbatore
14. TKA for valgus deformity, 14th International Conference of Skeletal Deformities Correction of the Egyptian Orthopaedic Association, 4-6 July 2018, Cairo, Egypt
15. THA for deformed hip, 14th International Conference of Skeletal Deformities Correction of the Egyptian Orthopaedic Association, 4-6 July 2018, Cairo, Egypt
17. Unstable intertrochanteric replacement: Decision making, MIDCON 2018, 8 July 2018, New Delhi
18. Humeral shaft fracture—When to plate and when to nail? 5th Trauma Conclave AAOS, 22 July 2018, New Delhi
19. Evaluation of painful TKA, MSK Imaging CME, 5 August 2018, Constitutional Club, New Delhi
20. Fracture liaison service—An invaluable tool for secondary fracture prevention, Combined Meeting of the 6th International GOSICON, Fragility Fracture Network (India) and Current Concepts in Arthroplasty 2018, 6-9 September 2018, All India Institute of Medical Sciences, New Delhi
21. Strong bones—Healthy and safe aging, Public Lecture during combined meeting of the 6th International GOSICON, Fragility Fracture Network (India) and Current Concepts in Arthroplasty 2018, 6 September 2018, All India Institute of Medical Sciences, New Delhi
23. Bringing hip and spine surgeons together—Total hip arthroplasty in fused hips with spinopelvic deformities, 46th Annual Meeting of Percival Pott Club, 9 November 2018, London, UK
24. Replacement in post infective arthritis, 63rd Annual Meeting of IOACON 2018, 27 November to 1 December 2018, Coimbatore
25. THA in Protrusio—Technical tips, 63rd Annual Meeting of IOACON 2018, 27 November to 1 December 2018, Coimbatore
26. Fixation strategies for osteoporotic fractures, 63rd Annual Meeting of IOACON 2018, 27 November to 1 December 2018, Coimbatore
27. Subtrochanteric fracture following alendronate, 63rd Annual Meeting of IOACON 2018, 27 November to 1 December 2018, Coimbatore
28. THA in Fused Hip—Change of Paradigm, 7th AIIMS Arthroplasty Update, 16 December 2018, AIIMS, New Delhi
29. Bone cuts in Total Knee Arthroplasty, 43rd Annual Conference of Odisha Orthopedic Association-OOACON, 12 January 2019, Berhampur, Odisha
30. Physician burnout, 43rd Annual Conference of Odisha Orthopedic Association-OOACON, 12 January 2019, Berhampur, Odisha
31. Implant removal in Revision Total Knee Arthroplasty, Partial and Revision Knee Bioskills Workshop, 28-29 January 2019, Chulalongkorn University, Bangkok
32. Why knee replacements fail? Partial and Revision Knee Bioskills Workshop, 28-29 January 2019, Chulalongkorn University, Bangkok
33. Complications of Unicondylar Knee Arthroplasty, Partial and Revision Knee Bioskills Workshop, 28-29 January 2019, Chulalongkorn University, Bangkok
34. Management of bone defects in Revision Total Knee Arthroplasty, Partial and Revision Knee Bioskills Workshop, 28-29 January 2019, Chulalongkorn University, Bangkok
35. Implant choices, Head sizes and bearing material, 43rd Annual Conference of Karnataka Orthopaedics Association KOACON-2019, 1-2 February 2019, Bengaluru
36. Difficult cases in TKA, Case presentation, Ranawat Orthopaedic Conference (ROC) Seventeenth Winter Meeting, 22-23 February 2019, Gurgaon
37. Abductor deficiency, Treatment options, Ranawat Orthopaedic Conference (ROC) Seventeenth Winter Meeting, 22-23 February 2019, Gurgaon
38. Addressing instability and bone loss in Revision THA: Key considerations, Ranawat Orthopaedic Conference (ROC) Seventeenth Winter Meeting, 22-23 February 2019, Gurgaon
40. Tips and tricks to avoid complications, Uni Talk Uni—Compartmental Knee Arthroplasty: The state of the Art, 23 March 2019, JPNATC, New Delhi
41. Osteoporosis in India: A burning target for surgical strike, Discussion on Unmet Needs in Health Care of India, 30 March 2019, NAMS House, New Delhi

HL Nag
1. A case of massive chondrosoncoma of right shaft femur in young patient—management challenge, Silchar Medical College Assam, 21 May 2018, Silchar Medical College, Silchar
2. All-inside ACL reconstruction, Arthroscopy Conclave 2018 KGMC Lucknow, 4-5 August 2018, KGMC, Lucknow
3. All-inside ACL reconstruction, 18th Annual Conference of Central Zone of IOA – CEZCON 2018, 14-16 September 2018, Siliguri
4. RC Tears in elderly and its treatment, GOSICON, FFN, CCA 2018, 6-8 September 2018, AIIMS, New Delhi
5. Health of knee joint in elderly, Symposium by EFORS Gr, 29 September 2018, Safdarjung Development Area, New Delhi
8. All inside ACL reconstruction, Sri Laxmi Nayaran Institute of Medical Research, 7 December 2018, Puducherry

Ravi Mittal
1. High tibial osteotomy, West Delhi Orthopaedic Association, 22 April 2018, Delhi
2. Meniscus tears, B and B Knee Course, 6-7 July 2018, Dulikhel, Nepal
3. Why I do not do Pivot Shift Test, B and B Knee Course, 6-7 July 2018, Dulikhel, Nepal
4. PCL reconstruction, B and B Knee Course, 6-7 July 2018, Dulikhel, Nepal
5. Shoulder dislocation—1st time and recurrent, DOA MIDCON, 8 July 2018, Delhi
7. Imaging of shoulder instability, DOA musculoskeletal imaging CME, 5 August 2018, Delhi
10. Isolated PCL injury and EBM, IOACON 2018, 27-29 November 2018, Coimbatore
11. Infection after ACL reconstruction, IOACON 2018, 27-29 November 2018, Coimbatore
12. Steps of PCL reconstruction, MAMC Knee Arthroscopy Cadaver Workshop, 22 December 2018, Delhi
13. Neglected posterior dislocation shoulder, NZOACON, 10 February 2019, Jammu
14. PET scan after ACL reconstruction, 17th International Congress of Egyptian Arthroscopy Association, 19-21 February 2019, Cairo, Egypt
15. Meniscus posterior root tears, 17th International Congress of Egyptian Arthroscopy Association, 19-21 February 2019, Cairo, Egypt

Shah Alam Khan
1. Staged management of bone sarcomas, 32nd Annual Conference of the North Zone of Indian Orthopaedic Association, 8-10 February 2019, Convention Hall, Jammu
2. What not to do in Paediatric Bone Tumors, 15th Paediatric Orthopaedic Society of India Conference, 4-8 January 2019, Mumbai
4. What not to do bone sarcomas, 8th Annual Conference of the Saudi Arabian Orthopaedic Association, 8-10 December 2018, Jeddah
5. Lessons learnt—First fifteen years of my practice, 39th SICOT World Congress, 10-13 October 2018, Convention Center, Montreal, Canada
6. Evaluating a bony lesion in the elderly, 4th Annual Conference of the Geriatric Orthopaedic Society of India, 6-9 September 2018, AIIMS, New Delhi
7. Radiology in Bone Tumors—What lies in the Shadows? Annual Conference of the Asia Pacific Orthopaedic Association, 10-14 April 2018, Antalya, Turkey
8. Biological reconstruction in Bone Tumors—Is biological logical? Annual Conference of the Asia Pacific Orthopaedic Association, 10-14 April 2018, Antalya, Turkey

Vijay Kumar
1. THR in Dysplastic Hip, First Annual Conference of Global Orthopaedic Forum (GOFCON), 7-8 April 2018, Patna
2. THA in Tuberculosis Hip, 37th Annual Conference of North Zone Orthopaedics Association (NZOACON) 2018, 4-6 May 2018, Shimla
3. NV complications during TKR—Risk factors and prevention, 37th Annual Conference of North Zone Orthopaedics Association (NZOACON) 2018, 4-6 May 2018, Shimla
5. Tuberculosis in Musculoskeletal System, BIOSCON, 29-30 June 2018, Hudderfield, UK
8. Role of imaging in Painful Total Hip Arthroplasty, MSK Imaging CME, 5 August 2018, Delhi
9. Extraction of a primary knee implant as a first stage revision, Hip and Knee Meet, 11-12 August 2018, Lucknow
10. Take down of a fused knee and subsequent knee arthroplasty, Hip and Knee Meet, 11-12 August 2018, Lucknow
11. Intra-articular hip spacer for infection, Hip and Knee Meet, 11-12 August 2018, Lucknow
13. Surgical technique of Oxford University, 3rd Quarterly Meet 2018 of DOA, 23 September 2018, Delhi
15. Complications following Oxford partial knee arthroplasty, Knee and Hip Arthroplasty-Present and Emerging Trends, 29-30 September 2018, Apollo Hospital, New Delhi
16. TKA—Unhappy Knee, Knee and Hip Arthroplasty—Present and Emerging Trends, 29-30 September 2018, Apollo Hospital, New Delhi
19. UKR Vs TKR are the indications interchangeable, 35th Annual Conference of Punjab Orthopaedic Association, POACON 2018, 10-11 November 2018, Chandigarh
20. Keeping patients safe in Bilateral TKR, 15th Annual Conference of Indian Arthroplasty Association Meet 2018, 16-18 November 2018, Neemrana, Rajasthan
22. Total hip replacement in Ankylosed Hip, 70th Annual International Congress of the Egyptian Orthopedic Association, 10-13 December 2018, Cairo, Egypt
23. Graft healing in ACL Reconstruction, 70th Annual International Congress of the Egyptian Orthopedic Association, 10-13 December 2018, Cairo, Egypt
24. Total knee replacement in Stiff and Ankylosed Knee, 70th Annual International Congress of the Egyptian Orthopedic Association, 10-13 December 2018, Cairo, Egypt
25. Neurovascular complications in TKR and its Prevention, 7th AIIMS Arthroplasty Update, 16 December 2018, AIIMS, New Delhi
26. Challenges with UKR in Indian patients, North Zone Orthopaedics Association (NZOACON) 2019, 9-10 February 2019, Jammu
27. Neurovascular complications in TKA and its prevention, 7th AIIMS Arthroplasty Update, 16 February 2019, AIIMS, New Delhi
29. Cruciates in TKR, 3rd Masters of Knee and Hip Arthroplasty Conference, 24 February 2019, Kanpur

Bhavuk Garg

1. Biomechanical peculiarities of L5 vertebra, 2nd International Conference on Clinical and Orthopaedic Biomechanics (ISIC), 13-14 April 2018, New Delhi
2. My experience with spine surgery, Barnes Jewish Hospital, 15 May 2018, St Louis, USA
3. 3D printing in spinal deformities video presentation, ASSI Live Surgery Course, 8-10 June 2018, New Delhi
8. Role of 3D printing in spinal deformities, 14th Egyptian Orthopedic Association Deformity Congress, 4-6 July 2018, Egypt
9. Spinal osteotomies for spinal deformities, 14th Egyptian Orthopedic Association Deformity Congress, 4-6 July 2018, Egypt
10. Water, water everywhere, CSF leak, MIDCON 2018, 8 July 2018, Delhi
11. How to plan and do Cervical trauma, MIDCON 2018, 8 July 2018, Delhi
12. How to minimize bleeding in spine surgery, ICS 2018, 9-11 August 2018, Amritsar
16. Boozing the damn bloody affair, DOACON 2018, 22-24 November 2018, AIIMS, New Delhi
17. Surgical anatomy and anterior approaches to cervical spine, North East Spine Society Meeting, 16 December 2018, Dibrugarh
18. Surgical anatomy and posterior approaches to Thoracolumbar spine, North East Spine Society Meeting, 16 December 2018, Dibrugarh
19. Anterior Thoracolumbar surgical approach, North East Spine Society Meeting, 16 December 2018, Dibrugarh
22. TB spine masqueraders, NZIOACON 2019, 9-10 February 2019, Jammu
Mohammed Tahir Ansari

2. De Quervain Tenosynovitis, An Update on Hand and Wrist Workshop, 15 April 2018, Agra
5. Ganglion of wrist, An Update on Hand and Wrist Workshop, 15 April 2018, Agra
8. Trigger finger, An Update on Hand and Wrist Workshop, 15 April 2018, Agra
10. Tips and tricks for total elbow arthroplasty, GOSICON2018, 8 September 2018, Delhi
11. Chondrocalcinosis and DIP joint Arthritis, GOSICON2018, 8 September 2018, Delhi
12. ECU subsheath injury, DOACON2018, 24 November 2018, Delhi
13. Hand tumours, DOACON2018, 24 November 2018, Delhi
15. Ganglion: Current concepts, Advance Wrist and Hand Symposium, 27 January 2019, Delhi
16. Examination of injured hand, IOA Instructional Course Lectures on Hand Surgery, 19 January 2019, Guwahati
17. Fracture shaft of humerus with radial nerve palsy, IOA Instructional Course Lectures on Hand Surgery, 19 January 2019, Guwahati
18. Fracture ulnar styloid, IOA Instructional Course Lectures on Hand Surgery, 19 January 2019, Guwahati
19. Golfer’s elbow, IOA Instructional Course Lectures on Hand Surgery, 19 January 2019, Guwahati
22. Tumour in hand: Glomus tumour/GCT/ganglion, IOA Instructional Course Lectures on Hand Surgery, 20 January 2019, Guwahati
23. Ulnar sided wrist pain, IOA Instructional Course Lectures on Hand Surgery, 20 January 2019, Guwahati

Vijay Kumar D

1. Role of TA lengthening in the management of Diabetic Ulcer, CCA-GOSICON-FFN, 7 September 2018, AIIMS, New Delhi
2. Management of retrocalcaneal bursitis and TA reconstruction, CCA-GOSICON-FFN, 7 September 2018, AIIMS, New Delhi
3. Bone donation and bone harvesting, Deceased Organ and Tissue Donation, 10 September 2018, AIIMS, New Delhi

Vikrant Manhas

1. TKR navigation surgical technique, GOSICON-FFN-CCA 2018, 6 September 2018, AIIMS, New Delhi
2. Role of orthotics and prosthetics in common foot and ankle problems, GOSICON-FFN-CCA 2018, 7 September 2018, AIIMS, New Delhi
4. Management of knee osteoarthritis, CME, Sanjeevani Hospital, 19 November 2018, Baran, Rajasthan
6. Bone screw—Getting a right every time, DOA Basic Trauma Course, 20 January 2019, New Delhi

Vivek Shankar
3. A broken friend or a hiding foe, DOACON 2018, 22-24 November 2018, Delhi

Venkatesan Sampath Kumar
1. Panelist in Giant Cell Tumour Panel Discussion, CME on “Giant Cell Tumor and Pathological Fractures”, 22 April 2018, New Delhi
2. Panel discussion: Locally aggressive benign bone tumours, Max Ortho Onco Con’ 18, 14 July 2018, New Delhi
3. Panel case discussion: Benign bone tumours, Onco Ortho Con 2018, 4 August 2018, Ahmedabad
4. Introduction to normal Gait and pathological Gait, DOACON 2018, 22 November 2018, New Delhi
5. Surgical technique—Deformity correction in Fibrous Dysplasia, DOACON 2018, 24 November 2018, New Delhi

Oral papers/posters presented:
4. Khan SA, Bakhshi S, Kumar VS, Functional outcome following no reconstruction in Sacral tumors, 12th Asia Pacific Musculoskeletal Tumor Society-2108 Meeting, 4-7 October 2018
5. Khan SA, Ashish S, Banjara R, Kumar VS, Role of mesh reconstruction in bone tumros, 5th Annual Conference of Indian Musculoskeletal Oncology Society, 10-12 March 2019, Suresh Neotia Centre of Excellence for Leadership
6. Khan SA, Rastogi S, Bakhshi S, Poudel RR, Kumar VS, Functional outcome following no reconstruction in Type II Pelvic resections for Chondrosarcomas, 5th Annual Conference of Indian Musculoskeletal Oncology Society, 10-12 March 2019, Suresh Neotia Centre of Excellence for Leadership
7. Kumar V, Banjara R, Srivastava D, Malhotra R, Results of hip replacement in patients less than 30 years of age (e-poster), 39th SICOT World Orthopaedic Congress, 10-13 October 2018, Montreal, Canada
8. Kumar V, Wahal N, Nayak M, Pandit H, Results of Oxford mobile bearing medial Unicompartmental Knee Replacement in Indian population at a minimum follow up of 5 years patients (e-poster), 39th SICOT World Orthopaedic Congress, 10-13 October 2018, Montreal, Canada
9. Kumar V, Malhotra R, Results of modular stem in revision of failed hemiarthroplasty (Oral Presentation), 39th SICOT World Orthopaedic Congress, 10-13 October 2018, Montreal, Canada
10. Kumar V, Wahal N, Pandit H, Malhotra R, Results of Oxford unicompartmental knee replacement in Indian patients with associated patellofemoral arthritis (Oral Presentation), 39th SICOT World Orthopaedic Congress, 10-13 October 2018, Montreal, Canada
12. Batra S, Garg B, et al. To develop computer assisted patient specific pedicle screw guides for spinal deformities with the help of volumetric CT Scan and 3D Reconstruction Models and compare with free hand technique, 19th EFFORT Congress, 30 May-1 June 2018, Barcelona


18. Kumar DV, A Prospective Randomized Study to Compare Large-Console Imageless Computer Assisted Navigation Vs Accelerometer Based Portable Navigation Technique in TKA, ROC, February 2019, New Delhi


20. Shankar V, Yadav CS, Kumar A, Naranje S, Khan SA, Routine use of anticoagulant chemoprophylaxis in joint replacement arthroplasty—Double or single edged deadly weapon? TIME TO WAKE UP! 39th SICOT Orthopaedics World Congress, 10-13 October 2018, Montreal, Canada

RESEARCH

Funded projects

Ongoing

1. Phase IV, Open-Label, Multi-center Study to Evaluate the Safety of Apixaban in Indian Subjects Undergoing Elective Total Knee Replacement or Total Hip Replacement Surgery, Rajesh Malhotra, Bristol-Myers Squibb India Pvt. Ltd, 4 years, 2015-2019, Rs 3.30 lakhs

2. A prospective randomized study to compare the systemic emboli in computer assisted navigation vs conventional surgical technique of knee replacement, Rajesh Malhotra, ICMR, 3 years, 2018-2021, Rs 49 lakhs

3. Study of Osteogenic Humoral Factors on Fracture Healing in Patients with Head Injury: Decoding the Mystery, Vijay Kumar Digge, DST, 3 years, 2018-2021, Rs 50 lakhs

4. Treatment response evaluation in extra spinal musculoskeletal tuberculosis using molecular imaging (PET-CT), Shah Alam Khan, ICMR, 2 years, 2017-2019, Rs 33 lakhs

5. Surveillance in Paediatric Bone Sarcomas, Shah Alam Khan, JivDaya Foundation, USA, 3 years, 2016-2019, USD 15,000

6. Understanding differences in the patterns of osteoarthritis in Indian and Western population: Impact on symptoms, treatment options and their outcome, Rajesh Malhotra and Vijay Kumar, DST-UKIERI, 3 years, 2017-2020, Rs 90 lakhs

7. Evaluation of Safety and Efficacy of Etodolac Injection in Patients with Post-Operative Orthopedic Pain, Vijay Kumar, IPCA, 1 year, 2018-2019, Rs 3 lakhs

8. Comparative evaluation of genetic and cytokines profile in age matched Indian subjects with and without knee Osteoarthritis, Bhavuk Garg, ICMR, 3 years, 2017-2020, Rs 140 lakhs

9. A Prospective, Active-controlled, Randomized, Double blind, Multicentre, Phase III Study to Compare the Safety and Efficacy of Biosimilar Denosumab of Enzene Biosciences Limited versus Innovator Denosumab in the Treatment of Postmenopausal Osteoporosis, Bhavuk Garg, Alkem Laboratories Ltd., 2 years, 2018-2020, Rs 8 lakhs

10. Epigenetic insight looking at possible differential miRNA expression among osteoporotic elderly and young patients with hip fractures, Bhavuk Garg, AO Trauma Asia Pacific, 3 years, 2018-2021, Rs 1.7 lakhs

11. Bone health assessment in transgender population; A pilot study, Bhavuk Garg, ICMR, 3 years, 2017-2020, Rs 72 lakhs

12. Evaluation of Immune Checkpoints in tumour micro-environment of Osteosarcomas, Venkatesan Sampath Kumar, AIIMS, 2 years, 2018-2020, Rs 5 lakhs
Completed

1. A multi-centre, prospective, uncontrolled Post Market Clinical Follow-up Study (PMCFS) to monitor the survival and performance of the Delta Motion Cup System in subjects requiring a total hip replacement, Rajesh Malhotra, Johnson & Johnson Medical India, 5 years, 2013-2018, Rs 15.50 lakhs
2. Prospective, Multi-centre Outcomes Study of Persona Knee System in Total Knee Arthroplasty, Rajesh Malhotra, Zimmer India Pvt. Ltd, 3 years, 2015-2018, Rs 23.5 lakhs
3. Comparison of Yearly Zolendronic Acid versus Weekly Alendronate in Preference, Convenience, Compliance, Persistence and Bone Turnover Markers in Indian Postmenopausal Osteoporotic Women, Rajesh Malhotra, ICMR, 3 years, 2015-2018, Rs 40 lakhs
4. To develop computer assisted patient specific osteotomy and drill guides for spinal deformities with the help of volumetric CT scan and 3D reconstruction models, Bhavuk Garg, DBT, 4 years, 2015-2019, Rs 50 lakhs
5. Comparison of bone scan changes during and after treatment with Alendronate and Teriparatide for the treatment of osteoporosis, Bhavuk Garg, ICMR, 3 years, 2015-2018, Rs 39.15 lakhs
6. Comparisons of Cytokines, Matrix Metalloproteinase and Bone Markers between Normal, pulmonary, Osteomyelitis and Spine Tuberculosis Subjects, Bhavuk Garg, AIIMS, 2 years, 2016-2018, Rs 9.99 lakhs

Departmental projects

Ongoing

1. A Prospective Randomised Study to Compare Large Console, Image Less Computer Assisted Navigation vs Accelerometer Based Portable Navigation Technique of Total Knee Replacement
2. A prospective randomized clinical trial to compare clinical, fluoroscopic and radiological outcome between medial pivot and lateral pivot knee
3. A Prospective Randomized Study to compare Computer Assisted Navigation vs Free Hand Surgical Technique of Total Hip Replacement
4. Determination of accuracy of implant positioning and limb alignment in medial Unicompartmental knee arthroplasty with computer navigation- an ambispective study
5. Double blind randomised control trial to assess the outcome of pulley release and pulley reconstruction for De Quervain’s Tenosynovitis
6. Functional and radiological outcomes following plating for displaced fractures of patella
7. Higher Forgotten Joint Score in Cruciate Retaining vs Posterior Stabilising Total Knee Arthroplasty
8. Implant migration analysis using RSA and clinic-radiological outcome in Indian population undergoing mobile bearing UKR
9. Response evaluation in MSK tuberculosis using PET CT
10. Role of molecular imaging in musculoskeletal tuberculosis
11. Study of p53, Ki 67 labelling index, CXCL12 Chemokine and its receptors CXCR4 and CXCR7 in Ewing Sarcoma

Completed

1. A prospective study comparing PET scan and dynamic MRI in assessment of the graft revascularization and healing in arthroscopic anterior cruciate ligament reconstruction
2. Biomechanical investigation of extracorporeal irradiation therapy in malignant bone tumors
3. Functional impact of congenital hand differences: Initiation and maintenance of the Congenital Upper Limb Differences (CoULD), Registry at All India Institute of Medical Sciences (AIIMS)
4. Quantification of the amount of PCL retained in cruciate retaining TKA and its effect on functional outcome
5. Role of CT guided percutaneous biopsy in suspected case of tuberculosis spine
6. To study histopathological and electron microscopic features of ligamentum flavum in degenerative lumbar canal stenosis in comparison with young adults undergoing discectomy
7. To study the clinical and radiological outcome of posterior and posterolateral decompression and instrumented inter body fusion using locally harvested bone graft in traumatic fracture dislocation of thoracolumbar spine
8. Total hip replacement in patients less than 30 years of age
Collaborative projects

Ongoing

1. Characteristics and clinical outcomes of Musculoskeletal Tuberculosis in patients presenting to Tertiary Care Hospital in India, Infectious diseases
2. Diagnostic ultrasound guided lumbar medial branch block of dorsal ramus in facet joint Arthropathy: Technical feasibility and validation by fluoroscopy, Anaesthesia
3. Effectiveness of bundled intervention in surgical site infections among patients undergoing clean orthopedic surgery with hardware implants: A randomized controlled trial, Microbiology
4. Histology of lumbar intervertebral disc in Disc Degenerative Disease and its correlation with clinical and radiological findings, Laboratory medicine
5. Impact of frailty and geriatric syndromes on outcome of major orthopaedic surgery in older Indian patients, Geriatric medicine
6. Patient specific stress analysis in Congenital Dislocation of the Hip, IIT, Delhi
7. The PARITY trial, McMaster University, Canada
8. The safety and efficacy of transcatheter arterial embolization in moderate osteoarthritis and medial knee pain, Cardiovascular Radiology and Endovascular interventions
9. Understanding differences in the patterns of osteoarthritis in Indian and Western population: Impact on symptoms, treatment options and their outcome, IIT, IBIG, DST and Oxford, UK

Completed

1. Biomechanical Investigation of extracorporeal irradiation therapy in Malignant Bone Tumors, IIT, Delhi
2. Quantification of tendon injuries using high frequency ultrasonography in upper limb injuries, Radiology
3. Safety suitability and clinical effectiveness of unicompartmental knee replacement in the Indian population, DST-U KIERI

PUBLICATIONS

Journals: 40  Abstracts: 3  Chapters in Books: 5  Book: 1

PATIENT CARE

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- Gait Analysis Laboratory
- Modular State of the Art Orthopaedic Operation Theatres (7 Nos.)
- Genetic Laboratory
Professor HL Nag: Morning General OPD, twice a week
Professor HL Nag: Running “Sports Clinic” in the afternoon, once a week
Professor HL Nag: Attending the injured athletes at Medical Centre, JL Nehru Stadium, New Delhi, in the afternoon, once a week
Installation of state of the art modular Ortho OT Complex
O arm facility
Mohammed Tahir Ansari: I am part of the development of hand surgery at the institute. I run a hand clinic as specialty clinic on every Wednesday. This gives an unique opportunity to develop a specialised field at AIIMS
Mohammed Tahir Ansari: I am part of the team who have started to give specialised care to brachial plexus injury patients. I am also part of the team running a separate brachial plexus clinic in JPNATC, AIIMS
Dr Vijay Kumar D: Apart from regular outpatient and inpatient care, I am part of Special Clinic (Fragility Fracture Clinic) with Prof Rajesh Malhotra
Dr Vikrant Manhas: Free consultation camp for patients with degenerative knee problems at Baran, Rajasthan on 20 November 2018
Dr Vikrant Manhas: Blood donation on Blood Donation Day Celebrated by Department of Orthopedic, New Delhi on 1 January 2019
Dr Vikrant Manhas: Member of committee constituted by AIIMS for Rashtriya Arogya Nidhi (RAN) to provide financial assistance for poor patients
Dr Vivek Shankar: Apart from regular outpatient and inpatient care, I am part of Spine Clinic with Dr Bhavuk Garg

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Rajesh Malhotra awarded “KT Dholakia Award” for the best paper award in Arthroplasty for Spectrum of Trunnion Failure in THA—A Comprehensive Failure Analysis with a novel system of classification Presented at ROC (Ranawat Orthopaedic Center) Seventeenth Winter Meeting on February 22-23, 2019; Awarded “KT Dholakia Award” for the best paper award in a prospection randomized study to compare large—Console Imageless Computer Assisted Navigation vs Accelerometer based Portable Navigation Technique in TKA at ROC (Ranawat Orthopaedic Center) Seventeenth Winter Meeting on 22-23 February 2019; Awarded best poster award for poster entitled: “Evaluation of Effects of Unloader Hip Brace on Kinematics of Hip Joint” presented in “MIDCON 2018” at New Delhi on 8 July 2018; was Member of RajbhashaKaryanvayan Samiti, AIIMS 2018; Steering Committee for AIIMS-IIT Delhi MoU 2019; Board constituted by Ministry of Health and Family Welfare for Consideration of the Proposal to amend Medical Device Rules (MDR), 2017 to includeprovision for compensation in case of Injury or death due to any medical device found malfunctioning/found unsafe / not in compliance with the conditions of the License; Core Group constituted by Ministry of Health and Family Welfare for developing World Class Trauma and Emergency Services in India; was Advisor Expert Member Editorial Board: Annals of National Academy of Medical Sciences (India) 2018-2021; was Editor of Journal of Clinical Orthopaedias and Trauma; First time in India 3D printed implant for Revision Total hip Arthroplasty in 2018; Judge for Hindi Essay Writing during Hindi Week on 10 September 2018 at Board Room, AIIMS, New Delhi; Invited as Chief Guest for iSAFE Mega Event organized by Indian Road Safety Campaign (IRSC) and Ministry of Road Transport and Highways on 30 October 2018 at DTU, New Delhi; Assessor forstart of DNB in Orthopedic Surgery Department at Apollo Hospital, Navi Mumbai, conducted by National Board of Examination (NBE) on 9-10 December 2018; President, Indian Orthopaedic Association (2019-2020); Chief Guest for OOAON 2019; inaugurated the conference on 12 January 2019; Co-Chairman of the Technical Expert Committee on Biomedical Engineering and Bio-design (Devices, Diagnostics and Implants) under DBT.

Professor Hira Lal Nag delivered Dr BB Ohri Oration on “ACL Surgery past, present and future” at Indore; was expert member of Human Rights Committee; Member of EHS Advisory Committee; Live surgical demonstration of “ACL Reconstruction” at Jaipur and Lucknow; Cadaveric Surgical Demonstration of “Arthroscopic Bankart Repair”, ESIC Medical College, Faridabad; Honorary consultant for Sports Authority of India (SAI); Appointed Member, Hospital Management Board; Nominated Member, Technical Specification Selection Committee of Surgical Items; External Examiner for MS Examination at Silchar, Siliguri, and JIPMER, Puducherry; Vice President, Orthopaedic Research Society, AIIMS; Member, Store Purchase Committee, AIIMS; Specific Events: External Expert for Interview Board for Selection of Faculty, Department of Orthopaedics, IGIMS, Patna; Unit In-charge of Orthopaedics Unit-II and Acting Head Department of Orthopaedics from time to time; Faculty In-charge, Orthopaedics OT; External Expert, Standing Selection Committee, for Selection of Faculty, Department of Orthopaedics, AIIMS, Bhopal, AIIMS, Raipur, AIIMS, Rishikesh, and AIIMS, Gorakhpur; External expert, interview board for selection of Professor and Associate Professor, ESIC Medical College, Faridabad, Haryana; Member,
Professor Vijay Kumar elected as Joint Secretary, North Zone Orthopaedic Association; Organized a “Walk for Elderly” during Combined Meeting of 6th International Geriatric Orthopaedic Society of India Conference, Fragility Fracture Network (India) and Current Concept in Arthroplasty 2018 at AIIMS, New Delhi on 7 September 2018; Visit to Leeds University under DST UKIERI Project entitled “Understanding differences in the patterns of osteoarthritis in Indian and Western population: Impact on symptoms, treatment options and their outcome” (D-468) from 23 June to 2 July 2018.

Dr Bhavuk Garg received DOA best publication award 2018 under 40 years of age; Worldwide Achiever Healthcare personality of the year: Orthopaedic Surgeon Award 2018; Member, SRS CME Committee; Became AOSpine international faculty; IASA visiting fellowship, Washington University, ST Louis, 10-18 May 2018; IOA-HKOA ambassador to Hong-Kong 2018; Member Executive Committee, Association of Spine Surgeons of India; Member Executive Committee, Delhi Orthopedic Association; Member Executive Committee, North Zone chapter of IOA.

Dr Mohammed Tahir Ansari was European Diploma in Hand Surgery.

Dr Vijay Kumar Digge received KT Dholakia Best Paper Award <40 years category at Ranawat Orthopaedic Conference held at New Delhi in February 2019; Fellowship in Sports Medicine and Arthroscopy (October 2018-April 2019) at Singapore General Hospital (SGH), Singapore; Received SICOT Fellowship Award in Navigated Knee Arthroplasty (SICOT); Did BCLS Course in January at Singapore; National Faculty for CCA-GOSICON-FFN India combined meeting held in New Delhi from 6-9 September 2018; Convenor of ANKLE and FOOT SESSION and National Faculty at the CCA-GOSICON-FFN India combined meeting held in New Delhi from 7 September 2018; Chaired a session on Navigated Arthroplasty at CCA-GOSICON meet held at AIIMS, DELHI from 6-9 September 2018, Pune Knee Course (PKC) held at Pune in April 2018; Indian Foot and Ankle Association Annual Conference (IFASCON) held at Vadodara in August 2018; Indian Arthroscopy Association Annual Conference (IASCON) held at Calicut in October 2018; Attended as a delegate Ranwat Orthopaedic Conference (ROC) held at Delhi in February 2019; Attended Advanced Shoulder Arthroscopy and Arthroplasty held at Singapore in April.

Dr Vikrant Manhas was convener of session “Geriatric foot and ankle Symposium” in GOSICON-FFN- CCA 2018 6-7 September 2018 at AIIMS, New Delhi; Navigated total knee arthroplasty Cadaveric Workshop in GOSICON-FFN-CCA 2018 6-7 September 2018 at AIIMS, New Delhi; Workshop on lag screw exercise, external fixator and DHS in DOA Basic Trauma Course, 20 January 2019 at New Delhi.

Dr Vivek Shankar was Co-Organising Secretary, DOACON 2018, 22-24 November 2019, New Delhi; Visiting Specialist (Orthopaedics) in IIT, New Delhi.

Dr Venkatesan Sampath Kumar visited Ganga Hospital, Coimbatore on “APOA-Ganga Hospital Travelling Trauma Fellowship” between 17 and 24 June 2018.

VISITING SCIENTIST
1. Dr Anant Mahapatra from Ireland on 10 May 2018
2. Dr Debkant Jena from Canada on 30 July 2018
3. Dr Robert Harvey from UK on 19 September 2018
4. Dr Amit Jhala, Chirayu Hospital, Ahmadabad, 18 June 2018
5. Dr Debkant Jena, USA, 30 July 2018

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HIGHLIGHTS

The department continued its activities to impart quality education to its own students and also to delegates and observers. The department conducted 11 major and minor workshops in the year. The department hosted the International Workshop on Head and Neck Surgery which included cadaveric demonstration dissection and Live surgery demonstration for delegates. The department also conducted Cadaveric and live Laryngology, Facial Plastic Surgery, Ear Surgery, Cochlear Implant and TOUSS workshops. The department has started scarless Robotic Thyroid Surgery Programme using da Vinci robotic system.

EDUCATION

The formal lecture schedule for the MBBS students are held in the 6th and 8th semesters and consist of 1 hour lectures. The undergraduate students are posted in the ENT department (OPD and Ward) for a total period of 2 months on rotation basis. Here they learn the basic ENT examination, become familiarized with diagnosing the common ENT diseases and learning the elementary management, including communication skills. The clinical training consists of

1. Two classes on introduction to the clinical aspects of ENT including proper Ear, Nose and throat examination
2. Bed side teaching and case discussion on common ENT conditions like CSOM, Deviated Nasal septum, Nasal polyps, Cancer larynx, etc.
3. Orientation to commonly used ENT instruments and X-rays in ENT practice
4. Exposure to commonly done OPD procedures like nasal packing, ear packing, cautery, etc.
5. Exposure to selective operative procedures like tracheostomy, tonsillectomy, septoplasty, Nasal polypectomy etc.
6. Preventive otology and head and neck cancer

At the end of the Otorhinolaryngology posting. The student are be able to:

1. Examine and diagnosis common ear, nose, and throat problems
2. Suggest common investigative procedures and their interpretation to diagnose and manage the patient
3. Treat the common ENT and Head and Neck problems at primary care centre, while treating the patient
4. Train to perform various minor surgical procedures like ear syringing nasal packing and biopsy procedure
5. Have awareness of preventive otology and head and neck cancer for public guidance

For postgraduates, major goals are patient care, teaching, research ability, and teamwork. PG students have to do presentation of seminar/paper, research writing, acquire clinical decision making ability and management expertise. Postgraduate students perform major and minor surgical procedures under supervision of a faculty member/a senior resident. They are trained to perform major and minor operations independently. During training, posted in orientation programme including exposure to Audiology Section and Vestibular Laboratory, Learn bedside history taking in ward, OT exposures, casualty, ICU requirement and their visit to related disciplines such as Neurosurgery/Anaesthesia. Care of indoor (Medical; preoperative and postoperative) patients. Attends operation theatre and emergency operations. Assists ward rounds and visit other wards with senior colleagues to attend call/consultations from other department. Participates in the teaching sessions in ward for bedside clinical aspect, in specialty clinics in afternoon in seminar/journal club and do emergency duty as per Roster of the department. Postgraduate students also have to do thesis under guidance of faculty.
The department also runs the superspecialty course of MCh Head and Neck Surgery and fellowship in Skull Base surgery. The MCh residents have been allocated duties in the respective specialties in OPD, OT and also attend academic activities jointly with departments of radiation oncology, medical oncology, pathology, neurosurgery etc. MCh residents and Skull Base Fellows also are promoted to participate in research projects jointly with faculty members. They present Seminars and journal clubs by rotation.

The department also organizes workshops and conferences for benefits of national and international delegates from time to time on various recent topics of interest. The department also welcomes delegates for observership from India and abroad and hosts them to observe departmental activities, specialty clinics, seminars and operative procedures.

**Long Term Training**

1. Lt. Col. Dr Abha Kumari, ENT Specialist, Military Hospital, Gwalior, 1 year, 25 April 2017 to 24 April 2018

**Short Term Training**

1. Dr Ravinder Singh Minhas, Professor, Department of ENT, IGMC, Shimla, 25 March 2019 to 8 April 2019
2. Dr Ramesh Azad, Professor and Head, Department of ENT, IGMC, Shimla, 11 February 2019 to 21 February 2019

**Elective training**

- Mr. Joshua Gold, University of Sydney, Australia, 10 December 2018 to 6 January 2019
- Mr. Tarun Yadav, Medical University, Pleven, Bulgaria, 23 July 2018 to 16 August 2018
- Mr. Mukul Kadyan, Medical University, Pleven, Bulgaria, 23 July 2018 to 16 August 2018
- Ms. Swikriti Sharma, Medical University, Pleven, Bulgaria, 2 July 2018 to 16 July 2018
  - **Internship postings** - Department of Emergency Medicine, Paediatrics, Medicine and Physiology
  - **Internship posting** of students of Bachelor’s in Audiology and Speech Language Pathology (BASLP), AYJNISHD, Regional Centre, Noida

Department had observers and rotation postings from Department of Medicine, Paediatrics and Physiology

**CMEs/Workshops/Symposia/National and International Conferences**

1. First international Head and neck Cadaveric dissection course and 7th AIIMS course at ACSST Facility, 26-30 March 2019, AIIMS, New Delhi
2. 8th Hands on Temporal Bone Dissection Course, 22-24 March 2019, AIIMS, New Delhi
3. AIIMS Laryngology Update 2019, 10-12 March 2019, AIIMS, New Delhi
4. 4th AIIMS Facial Plastics and Rhinoplasys workshop, 21-24 February 2019, AIIMS, New Delhi
5. Ved and Prakash Monga Temporal Bone Dissection competition for Association of Otolaryngologists of India, Delhi branch, 16 February 2019, AIIMS, New Delhi
6. 6th AIIMS Cadaveric Head and Neck course, 16-17 November 2018, ACSST Trauma Centre, Delhi
7. Second TOUSS Workshop, 16-17 August 2018, AIIMS, Delhi
8. Monthly meeting of association of Otolaryngologists of India, Delhi State Branch on 20 July 2018, AIIMS, Delhi
9. 5th Cadaveric Head and Neck Dissection Course at Cadaveric Training and Research Facility, 17-18 July 2018, AIIMS, Delhi
10. Structured Cochlear implantation Course for Surgeons 26-27 April 2018, AIIMS, Delhi
11. First AIIMS Cadaveric workshop on voice at ACSST, Trauma Center, 20 April 2018, AIIMS, Delhi

**Lectures delivered**

**Alok Thakar**

1. Case Discussion—Papillary Thyroid Carcinoma, 12th AIIMS Surgical Week, International Conference, 19-22 April 2018, New Delhi
2. Remote Access Thyroidectomy is a passing fad-cannot become standard of care, 12th AIIMS Surgical Week, International Conference, 19-22 April 2018, New Delhi
3. Thyroplasty-Surgical Techniques, Laryngology Cadaveric Dissection Course, JPN Trauma Centre, AIIMS, 20 April 2018, New Delhi
4. Tracheal Resection and Anastomosis-Surgical Techniques, Airway Reconstruction Cadaveric Dissection Course, JPN Trauma Centre, AIIMS, 21 April 2018, New Delhi
5. Round Table - Moderator - Difficult situations and recent advances in Cochlear Implantation, AIIMS Structured Cochlear Implant Course for Surgeons, 26-27 April 2018, AIIMS, New Delhi


13. Indocyanine Green loaded Cytokeratin Targeted Nanoparticle System for Sentinel Node Mapping, Workshop for Translational Research Advancement, Department of Biotechnology, 4-6 July 2018, AIIMS, New Delhi


15. Glomus Jugulare—The case for surgery, AOI Delhi Branch Meeting, 20 July 2018, New Delhi


17. Disorders of the Facial Nerve, Otolaryngology West Club, 4 August 2018, New Delhi

18. Panelist—Key Publications in Head-Neck Cancer Care for the Elderly, 1st Annual Review on Head and Neck Cancers, 11-12 August 2018, Mumbai, Maharashtra


21. Minimally invasive Head-Neck Oncosurgery Cancer Symposium, Association of Oncologists of North East India, 8-9 September 2018, Guwahati

22. Proptosis-Panel Discussion—Panelist, CME on Rhinology, Otology and Head and Neck Surgery, North East Branch of AOI, 20 September 2018, Guwahati, Assam

23. CSF Rhinorrhea, CME on Rhinology, Otology and Head and Neck Surgery, North East Branch of AOI, 20 September 2018, Guwahati, Assam


25. Extended supraglottic laryngectomy—Pre conference CME TORS and TOUSS in Head- Neck Cancer, Foundation for Head Neck Oncology Annual Conference (FHNO), 24-27 October 2018, Kolkata

26. TOUSS in Oropharyngeal Cancers, Foundation for Head Neck Oncology Annual Conference (FHNO), 24-27 October 2018, Kolkata

27. Glomus Jugulare—The case of surgery, Skull Base Surgery Society of India, 1-3 November 2018, Ludhiana, Punjab

28. Speech Rehabilitation in the Laryngectomee, AIIMS Head Neck Cadaveric Dissection Course, 5 December 2018, New Delhi

29. TLM in supraglottic and Hypopharyngeal cancer in the context of TORS and TOUSS, 5th Tata Memorial Centre— Laser Course in Head and Neck Oncology with Narrow Band Imaging, 14-15 December 2018, Mumbai

30. TLM for Intermediate and Advanced Laryngeal Cancers, 5th Tata Memorial Centre- Laser Course in Head and Neck Oncology with Narrow Band Imaging, 14-15 December 2018, Mumbai


34. Lifelong care in laryngeal cancer-case based discussion on issues of speech and swallowing rehabilitation, International Conference on cancer of Larynx and Hypopharynx, 20-22 December 2018, New Delhi
35. Robotic Thyroidectomy, 14th Asia-Oceania ORL-HNS 2019 congress and 71st Annual Conference of the Association of Otolaryngology of India, 9-13 January 2019, Hyderabad
36. Subglottic stenosis—Moderator, Panel Discussion, 15th Annual Conference of the Association of Phonosurgeon of India, Phonocon 2019, 1-3 February 2019, Kolkata
37. Tracheal Resection and Anastomosis, 15th Annual Conference of the Association of Phonosurgeon of India, Phonocon 2019, 1-3 February 2019, Kolkata
39. Robotic Thyroidectomy, 14th Asia Pacific Conference of Otolaryngology and Head-Neck Surgery, 9-13 January 2019, Hyderabad
40. Robotic Thyroidectomy, CME on current trends in Papillary carcinoma of thyroid, 10 February 2019, AIIMS, Rishikesh
41. Management of Papillary cancer thyroid—Panelist, CME on current trends in Papillary carcinoma of thyroid, 10 February 2019, AIIMS, Rishikesh
42. Endoscopic/Robotic Thyroidectomy—Panelist, International Society of Oncoplastic Endocrine Surgery and 3rd Conference of Indian Society of Thyroid Surgery, 15-17 February 2019, Lucknow
43. Keynote Lecture-Maximizining, Armed Forces Medical College, CORALS 2019, 22-23 February 2019, Pune
44. Delhi AOI Oration—A candle loses nothing by lighting another, 42nd Annual Meeting of the Delhi Association of Otolaryngologists of India (DelAOI), 2 March 2019, Delhi
45. New perspectives to vocal cord palsy, Association of Otolaryngologists of India, 3 March 2019, Coimbatore
46. EXITing from CHAOS, Association of Otolaryngologists of India, 3 March 2019, Coimbatore
47. Partial Laryngectomy, AIIMS Laryngology Update, 10-12 March 2019, Delhi
48. Maxillectomy—Surgical Technique, AIIMS International Head-Neck Cadaveric Dissection Course, 26-30 March 2019, JPN Trauma Centre, New Delhi
49. Remote Access Thyroidectomy is a passing fad—Cannot become standard of care— Debate Against the motion, Endosurgery AIIMS/13th AIIMS Surgical Week, 29-31 March 2019, New Delhi
50. Dilemmas in Treatment of Medullary Thyroid Cancer, 3rd Conference of the Asia-Pacific society of Thyroid Surgeons, 7-9 December 2018, Kaohsiung, Taiwan
51. Panelist—Questions in Otology, ENT Master Class UK, 16-17 November 2018, Colombo, Sri Lanka
52. Robotic surgery in Otalaryngology and Head-Neck Surgery, ENT Master Class UK- 2018, 16-17 November 2018, Colombo, Sri Lanka

Rakesh Kumar

1. Cadaveric demonstration of
   a) Pinnaplasty-Mustarde’s Suture technique,
   b) “facial liposuction and Fat transfer
   c) technique of rib cartilage harvesting and nasal dorsal augmentation
   d) bi-lobe flap planning and using for facial defects, 6th National Facial Plastic Surgery Course, 27-28 August 2018, Bengaluru
2. Live demonstration of Rib cartilage harvesting, 6th International Rhinoplasty and Facial Plastic Surgery Workshop, 1-2 September 2018, Hyderabad
3. Talk on Otoplasty, 6th International Rhinoplasty and Facial Plastic Surgery Workshop 1-2 September 2018, Hyderabad
4. Live demonstration of open septorhinoplasty, 31st Annual conference of All India Rhinology Society, 5-6 October 2018, AIIMS, Bhubaneswar
5. Panelist on Rhinoplasty, 31st Annual conference of All India Rhinology Society, 5-6 October 2018, AIIMS, Bhubaneswar
6. Live demonstration of open a) septorhinoplasty for an acquired crooked nasal deformity and obstruction
   a) second case was of cleft lip Rhinoplasty c) nasolabial flap repair, 2nd Annual Live Surgery cum Soft Cadaveric Dissection Course on Rhinoplasty, 12-13 October 2018, AIIMS, Jodhpur
7. Cadaveric demonstration of Rhinoplasty and nasobulbar flap, 2nd Annual Live Surgery cum Soft Cadaveric Dissection Course on Rhinoplasty, 12-13 October 2018, AIIMS, Jodhpur
10. Rhinoplasty-outcomes, 42nd Annual Conference of Delhi AOI, 2-3 March 2019, LHMC, New Delhi

Kapil Sikka
1. Live cadaveric demonstration: PMMC Flap, First International Head and Neck Cadaveric dissection course and 7th AIIMS course, 26-30 March 2019, ACSST Facility, AIIMS, New Delhi
2. Live surgical demonstration: Total laryngectomy and neck dissection, First International Head and neck Cadaveric dissection course and 7th AIIMS course, 26-30 March 2019, ACSST Facility, AIIMS, New Delhi
3. Instructional course on Trans Nasal Esophagoscopy, AIIMS Laryngology Update 2019, 10-12 March 2019, AIIMS, New Delhi
4. Moderator, surgical sessions, AIIMS Laryngology Update 2019, 10-12 March 2019, AIIMS, New Delhi
5. Presented a debate against surgical management of traumatic facial nerve injury, 42nd Conference of Association of Otalaryngologists of India, Delhi Branch, 2-3 March 2019, LHMC, New Delhi
6. Panelist in panel discussion on facial reanimation, 4th AIIMS Facial Plastics and Rhinoplasty Workshop, 21-24 February 2019, AIIMS, New Delhi
7. Vestibular Paroxysmia, Vertigo update and workshop at, 2-3 February 2019, Fatehabad, Haryana
8. Robotic Thyroidectomy, Clinical Combined Round, 29 January 2019, AIIMS, New Delhi
10. Auditing results of cochlear implantation, 16th Annual Conference of Cochlear Implant Group of India, 29 November-1 December, Daman, India
13. Radiology of infections—Pyogenic and Fungal in Round Table on Radiology, 11th International Symposium on recent Advances in Rhinosinusitis and Nasal Polyposis, 9-11 November 2018, NIMHANS Convention center, Bengaluru
15. Invasive Fungal Sinusitis, 31st Annual Meeting of All India Rhinology Society (Rhinoco 2018), 4-7 October 2018, AIIMS, Bhubaneswar
16. Panelist: Challenges in allergic fungal rhinosinusitis with case scenarios: Challenges and updates in management, 31st Annual Meeting of All India Rhinology Society (Rhinoco 2018), 4-7 October 2018, AIIMS, Bhubaneswar
17. Endoscopic Anatomy of Nose and Paranasal Sinuses, Neurocon 2018, 14-16 September 2018, Paras Hospital, Gurgaon
18. Hearing Devices, AIIMS-IITD Open House session for collaborations, 29 August 2018, AIIMS, New Delhi
21. Course coordinator demonstrated comprehensive neck dissection on cadaver, 5th Cadaveric Head and Neck Dissection Course, 17-18 July 2018, ACSST, AIIMS, New Delhi
22. Invasive Fungal Rhinosinusitis—Challenges and Solutions, 3rd Live Surgical Workshop on Endoscopic Sinus Surgery, 20 May 2018, Shroff’s Eye Hospital, New Delhi
23. Panelist, Case based panel discussion on controversies in management of oral cancers, Updates in Oncology—Controversies in Head and Neck Cancers, 28-29 April 2018, New Delhi
25. AIIMS Audit and results—What to expect? Structured Cochlear Implantation Course for Surgeons, 26-27 April 2018, AIIMS, New Delhi
27. Unilateral Vocal Fold Immobility, First AIIMS Cadaveric workshop on Voice, 20 April 2018, AIIMS, New Delhi
28. Moderated a Panel on “Recent Strategies in Cochlear Implant”, 41st annual conference of Association of Otolaryngologists of India, 6-8 April 2018, Thimpu, Bhutan
29. Panelist, panel discussion on controversies in management of parotid tumors, 41st Annual Conference of Association of Otolaryngologists of India, 6-8 April 2018, Thimpu, Bhutan

Chirom Amit Singh

1. Bilateral vocal cord palsy, 1st Airway Cadaveric workshop, 21 April 2018, ACSST, All India Institute of Medical Sciences, New Delhi
2. Panelist, Symposium on controversies in management of oral cancers, Update in oncology -X- 2018 Controversies in Head and Neck cancer, 28-29 April 2018, Sir Ganga Ram Hospital, New Delhi
3. Basic surgical technique Laryngectomy, 5th Head and Neck cadaveric dissection workshop, 17-18 July 2018, ACSST, All India Institute of Medical Sciences, New Delhi, India
4. Cadaveric demonstration of laryngectomy, 5th Head and Neck cadaveric dissection workshop, 17-18 July 2018, ACSST, All India Institute of Medical Sciences, New Delhi, India
5. Panelist, Transoral surgical alternatives in head neck cancer, TOUSS in Head-Neck cancer, 16-17 August 2018, AIIMS, New Delhi
6. Basic surgical technique Laryngectomy, 5th Head and Neck cadaveric dissection workshop, 4-5 December 2018, ACSST, All India Institute of Medical Sciences, New Delhi, India
7. Cadaveric demonstration of laryngectomy, 5th Head and Neck cadaveric dissection workshop, 4-5 December 2018, ACSST, All India Institute of Medical Sciences, New Delhi, India
8. Oral cavity malignancy—Surgical aspects and reconstruction, 1st Annual Otalaryngology Update—Head and Neck Oncology, 14 December 2018, GIMS, Greater Noida, UP
9. Moderator, Static and dynamic rehabilitation of paralysed face, 4th AIIMS Facial Plastics and Rhinoplasty Workshop, 21-24 February 2019, AIIMS, New Delhi
10. Cadaveric demonstration of facial masseceteric nerve anastomosis, 4th AIIMS Facial Plastics and Rhinoplasty workshop, 21-24 February 2019, AIIMS, New Delhi
11. Panelist, Decision making in early and advanced laryngeal cancer, 42nd Annual conference of Delhi AOI, 2-3 March 2019, LHMC, New Delhi
12. Cadaveric demonstration of mandibulotomy, International Head and Neck Dissection Course, 26-30 March 2019, ACSST, All India Institute of Medical Sciences, New Delhi
13. Cadaveric demonstration of mandibulectomy: Marginal and segmental, International Head and Neck Dissection Course, 26-30 March 2019, ACSST, All India Institute of Medical Sciences, New Delhi, India
14. Introduction to free flap—Basics of microvascular anastomosis, International Head and Neck Dissection Course, 26-30 March 2019, ACSST, All India Institute of Medical Sciences, New Delhi
15. Facial nerve in parotidectomy: Reanimation and reconstruction, International Head and Neck Dissection Course, 26-30 March 2019, ACSST, All India Institute of Medical Sciences, New Delhi
16. Surgical management of skull base malignancies, Workshop on contouring in Head and Neck Cancer Radiotherapy, 31 March 2019, Medanta, Gurgaon, Haryana

Rajeev Kumar

1. Moderated panel on “Controversies in management of parotid neoplasms”, 41st Annual Conference of AOI, Delhi State Branch 2018, 6-7 April 2018, Thimphu, Bhutan
2. Decision making in Laryngotraheal stenosis, 1st Voice and Airway Cadaveric Workshop, 20-21 April 2018, ACSST, JNPATC, AIIMS, New Delhi
4. Transfacial approaches to PNS tumours, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
5. Moderated panel on topic Sinonasal malignancies—Where we can go wrong, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
6. Physiology of larynx and assessment of Aspiration, International Conference on Cancer of Larynx and Hypopharynx, 20-22 December 2018, UCMS and GTB Hospital, New Delhi
7. Panelist on panel for “Static and dynamic rehabilitation of paralysed face”, 4 Facial Plastics and Rhinoplasty Workshop 2019, 21-23 February 2019, AIIMS, New Delhi
8. Cross-fire: Cold steel tonsillectomy vs Coblation adenoidectomy, 42nd Annual Conference of Delhi AOI, 2-3 March 2019, LHMC, New Delhi
9. Panelist on panel for “Laryngeal Cancer—How to treat them best”, AIIMS Laryngology Update 2019, 10-12 March 2019, AIIMS, New Delhi
10. Demonstration through video “surgical steps of total maxillectomy”, International Head and Neck Dissection Course, 26-30 March 2018, AIIMS, New Delhi
11. Demonstration through video “surgical steps of Pectoralis Major myocutaneous flap and Deltopectoral flap”, International Head and Neck Dissection Course, 26-30 March 2018, AIIMS, New Delhi
12. Local flaps in Head and Neck closures, International Head and Neck Dissection Course, 26-30 March 2018, AIIMS, New Delhi

Prem Sagar
1. Management of Intractable Meniere’s Disease, Annual conference of AOI, Delhi Branch, 6-7 April 2018, Thimphu, Bhutan
2. Panel on Rhinoplasty, RHINOCON 2018, 4-7 October 2018, AIIMS, BBSR
3. Panel on Vertigo, 42nd Annual Conference by AOI, Delhi branch, 2-3 March 2019, Lady Hardinge Medical College, New Delhi
4. Practical aspects on evaluation and management of olfactory disorders, RHINOCON 2018, 4-7 October 2018, AIIMS, BBSR
5. Airway assessment, 1st Airway Cadaveric Workshop 2018, 21 April 2018, ACSST at JNPA Trauma Centre, New Delhi
6. Is the patient ready? Check list revision and consent, Structured Cochlear Implantation Course for Surgeons, 2018, 26-27 April 2018, AIIMS, New Delhi
7. Differentiated Thyroid Cancer: Tips in difficult diagnostic and therapeutic situations, 5th AIIMS Head Neck Cadaveric Dissection Course, 17-18 July 2018, AIIMS Cadaveric Surgical Skills Training at JNPA Trauma Centre, New Delhi
9. Differentiated Thyroid Cancer: Tips in difficult diagnostic and therapeutic, 6th AIIMS Head Neck Cadaveric Dissection Course, 4-5 December 2018, AIIMS Cadaveric Surgical Skills Training at JNPA Trauma Centre, New Delhi
11. Instructional course in—Injection Laryngoplasty Animal Model, AIIMS Laryngology Update 2019, 10-12 March, AIIMS, New Delhi
12. Case based discussion on thyroid cancer, 1st International Head and Neck Dissection Course, 26-30 March 2019, AIIMS Cadaveric Surgical Skills Training at JNPA Trauma Centre, New Delhi
13. Obstructive endobronchial tumours; is pneumonectomy always necessary? Combined Clinical Round, 3 April 2018, AIIMS, New Delhi

David Victor Kumar Irugu
2. Live Surgical Demonstration of Reverse Stapidotomy, 4th AOI State conference, 14-16 September 2018, Siddipet, Telangana
3. Basic Fundamentals and Principles of Temporal Bone Dissection, 1st Temporal Bone Dissection workshop, Lady Hardinge Medical College, 2-3 November 2018, New Delhi
4. Video demonstrations of various surgical techniques in Temporal none, 1st Temporal Bone Dissection workshop, Lady Hardinge Medical College, 2-3 November 2018, New Delhi
5. Modifications of Maxillectomy: Partial vs Total, 1st International Cadaveric Head and Neck Dissection Course CTRF Facility Trauma Center, AIIMS, 26-30 March 2019, New Delhi
6. Contemporary Indications of CI Surgery, 1st Structured Cochlear Implantation Course to Surgeons, AIIMS, 26-28 April 2018, New Delhi
**Hitesh Verma**

1. Anoop Raj Resident Quiz Master, Delhi AOI, 1 April 2018, Delhi
2. Endoscopic choanal atresia repair, Explore ENT, 6-8 April 2018, Fatehabad Road, Agra
3. Pretest, 5th Cadaveric Head and Neck Dissection Course, 17-18 July 2018, CTRF Facility Trauma Center, AIIMS, New Delhi
5. Robotic thyroidectomy, Delhi AOI Monthly Meet, 20 July 2018, Conference Hall, AIIMS, New Delhi
6. Thyroidectomy: Tertiary care center experience, PAOICON, 8-9 September 2018, Bhatinda
7. Serum galactomannan: Can consider as marker of invasion, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
8. Nasal dermoid: Tips and tricks, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
9. Lateral rhinotomy assisted endoscopic Lothrop, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
10. Panel discussion—Sphenoid revisit, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
11. Normal radiology and decision making in FESS, ISRNP, 9-11 November 2018, NIMHANS Convention Center, Bangalore
12. Moderator of invited talks, Haryana AOI, 24-25 November 2018, MM Medical College, Mullana
13. COMPLICATION in thyroid surgery, Haryana AOI, 24-25 November 2018, MM Medical College, Mullana
14. When to do what: Neck dissection, 6th Cadaveric Head and Neck Dissection Course, 4-5 December 2018, CTRF Facility Trauma Center AIIMS, New Delhi
15. Pretest, 6th Cadaveric Head and Neck Dissection Course, 4-5 December 2018, CTRF Facility Trauma Center, AIIMS, New Delhi
16. Panelist—Case presentation angiofibroma, ENT Update, 8-9 December, MAMC, New Delhi
19. Prognostic factor in RRP, Delhi AOI, 2-3 March 2019, LHMC, New Delhi
20. Recent management in RRP, Delhi AOI, 2-3 March 2019, LHMC, New Delhi
21. When to do what: Neck dissection, 1st international Cadaveric Head and Neck Dissection Course, 26-30 March, CTRF Facility Trauma Center AIIMS, New Delhi
22. Surgical Anatomy for OSA, IASSACON, 29-31 March 2019, PGIMER, Chandigarh
23. Chairperson—How to improve the outcome in OSA surgeries, IASSACON, 29-31 March 2019, PGIMER, Chandigarh

**Shuchita Singh Pachaury**

1. Stroboscopic evaluation of larynx—Its principle and uses, 1st Voice Cadaveric Workshop, 20 April 2018, ACSST, JPNATC, New Delhi
2. How a Cochlear implant works, 1st structured cochlear implantation course for surgeons 2018, 26-27 April 2018, Seminar Room, AIIMS, New Delhi
4. Thyroidectomy, 6th Head and Neck Cadaveric Dissection Workshop 2018, 4-5 December 2018, ACSST, JPNATC, New Delhi
6. Management of Laryngotracheal Stenosis, International Conference on Cancer of Larynx and Hypopharynx, conducted by University of Chicago and University, College of Medical Sciences and GTB Hospital, 20-22 December 2018, University of Chicago, Centre in Delhi, New Delhi
8. FEES and Swallowing rehabilitation, AIIMS Laryngology Update 2019, 10 March 2019, Surgical Skill Lab, AIIMS, New Delhi
9. Laryngeal EMG, AIIMS Laryngology Update 2019, 10 March 2019, Surgical Skill Lab, AIIMS, New Delhi
10. Stroboscopic evaluation of larynx, AIIMS Laryngology Update 2019, 10 March 2019, Surgical Skill Lab, AIIMS, New Delhi
11. Radiological anatomy of temporal bone, Advanced Temporal Bone Dissection Course, 22 March 2019, Surgical Skill Lab, AIIMS, New Delhi

Arvind Kumar Kairo

1. Bilateral vocal cord palsy, 1st Voice Cadaveric workshop, 20 April 2018, ACSST, JPNATC, New Delhi
2. Mechanism of Laryngotracheal stenosis, 1st Airway Cadaveric workshop, 21 April 2018, ACSST, JPNATC, New Delhi
3. Nasolabial Flap, Monthly clinical meet of Delhi Brach AOI, 2015, 12 October 2018, Conference Hall, AIIMS, Jodhpur
4. Pinnaplasty: Basic principles and techniques, 4th AIIMS Facial Plastics and Rhinoplasty Cadaveric Workshop, 23 February 2019, Conference Hall, AIIMS, New Delhi
5. Thyroplasty techniques, AIIMS Laryngology Update 2019, 10 March 2019, Surgical Skill lab, AIIMS, New Delhi
7. Temporal bone HRCT: How to read, Advanced Temporal Bone Dissection Course, 22 March 2019, Surgical Skill Lab, AIIMS, New Delhi
8. Surgical anatomy of temporal bone, Advanced Temporal Bone Dissection Course, 22 March 2019, Surgical Skill Lab, AIIMS, New Delhi
9. Type 1 Thyroplasty techniques demonstration, International Head Neck Dissection Course 2019, 26-30 March 2019, ACSST, New Delhi
10. Techniques of Neck Dissection, 6th Head Neck Cadaver Dissection Course 2018, 4-5 December 2018, ACSST, New Delhi

Oral papers/posters presented

2. Kairo AK, Combine approach glottoplasty, Laryngology and Voice Summit, 21-23 September 2018, Goa, India
3. Kairo AK, Psoriasin—A key to solve enigma of cholesteatoma pathophysiology, ISOCON 2018, 16-18 November 2018, Mysore, Karnataka
5. Kumar R, Comparing the outcomes in patients of CSOM undergoing CWD mastoidectomy with/without canal wall reconstruction or cavity obliteration, ISOCON 2018, 16-18 November 2018, Mysore, Karnataka
6. Kumar R, Endoscopic excision of JNA—A case series, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
7. Kumar R, Evaluating the positivity of lymphovascular emboli and perineural invasion as prognostic factors in T4a gingivolabial complex squamous cell carcinoma, 41st Annual conference of Delhi AOI State Branch, April 2018, Bhutan
10. Sagar P, Facial nerve decompression by closed tympanoplasty approach, 27 Annual Conference of Indian Society of Otology (ISOCON 2018), 16-18 November 2018, Mysore, Karnataka
12. Sagar P, Video on “closed tympanoplasty facial nerve decompression”, 41st Annual Conference of AOI, Delhi Branch, April 2018, Bhutan
15. Sonu, Das B, Kairo AK, Prevalence and Antimicrobial Susceptibility of Non-typeable Haemophilus influenzae (NTHi) in North India, Delhi Critical Care Symposium, 18-19 August 2018, ISCCM, Nehru Place, Delhi
16. Verma H, Prognostic factor in RRP, Delhi AOI, 2-3 March 2019, Lady Harding Medical Collage, Delhi, Best paper award
17. Verma H, Serum galactomannan: Can consider as marker of invasion, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar, Best paper award

RESEARCH

Funded projects

Ongoing

1. BRCC3 Expression as a prognostic marker in Oropharyngeal Carcinoma Patients and its effect on radiotherapy resistance, Arvind Kumar Kairo, AIIMS, 2 years, 2018-2020, Rs 9.05 lakhs
2. Clinical and biochemical evaluation for depression in patients with recently diagnosed head and neck cancer, Prem Sagar, AIIMS, 2 years, 2016-2018, Rs 8 lakhs
3. Effects of non-ionizing electromagnetic field on human health: Effects on auditory and vestibular system, Rakesh Kumar, ICMR, 3.5 years (extended), Rs 90 lakhs
4. Evaluation of genetic profile of olfactory neuroblastoma, Rajeev Kumar, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
5. Evaluation of level of Vascular Endothelial Growth Factor—In cases of Recurrent Respiratory Papillomatosis, Hitesh Verma, AIIMS, 2 years, 2016-2018, Rs 4.7 lakhs
6. Evaluation of unknown head and neck primaries metastatic to cervical lymph nodes, Chirom Amit Singh, AIIMS, 2 years, 2018-2020, Rs 4.95 lakhs
7. Prevalence and Etiology of hearing impairment—National Task Force Project (Coordinating Centre), Alok Thakar, ICMR, 4 years, 2015-2019, Rs 97 lakhs
8. Salivary micro-RNA: Their utility as bio-marker during molecular changes in tobacco users vs tobacco non-users, Shuchita Singh, AIIMS, 2 years, 2016-2018, Rs 9.8 lakhs
9. Sound4All: Re-engineering High-end Audiometric Devices for Robust and Affordable Audiological Testing, Kapil Sikka, Indo German Science and Technology Center (IGSTC), 3 years, 2016-2019, Rs 36.8 lakhs
10. Study of Human Papilloma Virus (HPV) Association in Sinonasal Tumors, Kapil Sikka, AIIMS, 2 years, 2018-2020, Rs 20 lakhs
11. Study of Inner Ear Protein Otolin-1, vitamin D and Ionized Calcium in circulation as a biomarker in non-Meniere’s Disease vertigo patients, David Victor Kumar Irugu, AIIMS, 2 years, 2018-2020, Rs 8.66 lakhs
12. The Clinicopathological evaluation of Cholesteatoma aggressiveness, Kapil Sikka, AIIMS, 2 years, 2018-2020, Rs 6.5 lakhs

Completed

1. Studies on P13K/AKT signaling and anti-tumour effects of its targeted disruption in oral cancer, SC Sharma, DST, 3.5 years, 2014-2018, Rs 54.22 lakhs
2. Development of Indocyanine-Green loaded cytokeratin targeted calcium phosphate nanoparticulate system for sentinel lymph node mapping in head and neck cancer, Alok Thakar, DBT, 3 years, 2015-2018, Rs 38 lakhs
3. Study and Morpho-metric analysis of temporal bone by Micro dissection, David Victor Kumar, AIIMS, 1 year, 2017-2018, Rs 1.85 lakhs
4. A pilot comparative study on expressional level difference of ‘psoriasin’ between different squamous ear diseases in patients undergoing mastoid surgeries, Arvind Kumar Kairo, AIIMS, 1 year, 2016-2017, Rs 5 lakhs

Departmental projects

Ongoing

1. A pilot study on the causal relationship of gastroesophageal reflux and obstructive adenoid or adenotonsillar hypertrophy in paediatric population
2. A prospective study to explore patterns of nicotine dependence in newly diagnosed cases of head and neck squamous cell carcinoma and evaluate its association with perioperative complications
3. Allogenic tissue engineered tracheal transplantation in wistar rats—preclinical study
4. Assessment of clinical profile in patients of Menieres Disease and Vestibular Migraine
5. Assessment of depth of invasion in oral cavity squamous cell carcinoma (T1-T3) by clinical palpation and radiology and their correlation to histopathological depth of invasion
6. Assessment of host immunological tumour response by histochemistry in cancer oral cavity and its impact on prognosis—Retrospective cohort study
7. Clinico radiological correlation of severity of disease with vitamin D and immune markers in cases of allergic rhinitis and nasal polyposis
8. Effect of short term endotracheal intubation on laryngeal function
9. EMG findings in dysphonia due to laryngopharyngeal reflex disease and correlation with treatment outcome: An observational study
10. Evaluation of various clinical and immunological parameters in predicting the outcomes of sinonasal and skull base invasive fungal diseases: A descriptive study
11. Exploration of first echelon lymph node drainage of squamous cell carcinoma of tonsil with reference to lateral retropharyngeal lymph node of rhouviere
12. Outcome in patients undergoing surgical correction of microtia
13. Prospective pilot study to evaluate the incidence of lymph node metastasis in olfactory neuroblastoma
14. Role of 68 gapsmahbed cc scan in patients with juvenile nasal angiofibroma S
15. SDH-X mutation in head and neck paragangliomas: A clinicopathological study
16. Study of microvascular density and tumour associated macrophages in oral squamous cell carcinoma
17. To correlate functional near infrared spectroscopy measurement of auditory cortex activation with auditory verbal outcome in prelingual profound sensorineural hearing loss patients after cochlear implantation
18. To evaluate the role of transnasal esophageal endoscopy for detection of synchronous esophageal neoplasm in head and neck cancer patients

Completed

1. Comparison between the canal wall down mastoidectomy with obliteration and without obliteration
2. Comparison of effect of embolisation on resection on Juvenile nasopharyngeal angiofibroma
3. Detection and quantification of circulating tumor cells in peripheral blood of patients with oral cavity squamous cell carcinoma
4. EGFR evaluation in cholesteatoma sac in different types of pneumatisation of temporal bones
5. Immunohistochemical and surgical outcomes of oral submucus fibrosis
6. Prospective evaluation of unknown head and neck primaries metastatic to cervical lymph nodes
7. Study of pediatric tracheostomy and its effect on patients and care givers

Collaborative projects

Ongoing

1. A longitudinal Survey to assess Patient Satisfaction for Nurse Initiated Follow Up Tele-Consultation among patients discharged from a selected tertiary care hospital, Nursing
2. An OMR sheet based feed-back survey on in-patient satisfaction regarding various hospital services in a selected tertiary care hospital, College of Nursing
3. Cleft Lip and Palate anomaly in India: Clinical profile Risk factors and current status of treatment: A hospital based study, Centre for Dental Education and Research
4. Developing suctioning machine for cleaning tracheostomy tubes, IIT Delhi
5. Interdisciplinary variations in the spectrum of oral mucosal lesions, Dermatology
6. Phenotypic and genotypic characterization of non-typeable Haemophilus influenzae (NTHi) from North India, Microbiology
7. Pilot study on comparison of efficacy and usability of indigenous handheld suction assembly for pediatric tracheostomised patients with the existing suction devices, Paediatrics
8. Serum Zinc levels in Indian population with chronic idiopathic tinnitus, Pharmacology
9. Studies on P13K/ASK signaling and anti-tumour effects of its targeted disruption in oral cancer, Biotechnology
PATIENT CARE

Apart from OPD, Operation theatre and minor OT services, the department runs a rehabilitation unit of audiology and speech pathology and specialty clinics in Audiology and skull base with cochlear implant, rhinology, vertigo, voice and swallowing, and twice a week Head and neck cancer clinic. Department also provides rural services at CRHSP Ballabgarh and Outreach OPD, Jhajjar. The statistics are as follows:

Ward Admissions: D4 Ward: 3,082

Number of patients operated
Main OT: Major cases: 2,541 Minor Cases: 2,044
Minor OT: OPD procedures: 22,236

Number of patient seen in OPD
New patients: 50,304 Old registration -81,467

Total Number of Patients seen in RUAS
New Patients: 3,691 Old Registrations: 3,180

No. of cases in Specialty Clinics

<table>
<thead>
<tr>
<th>Clinic</th>
<th>New Cases</th>
<th>Old cases</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertigo</td>
<td>135</td>
<td>169</td>
<td>304</td>
</tr>
<tr>
<td>Audiology and Skull Base</td>
<td>113</td>
<td>33</td>
<td>146</td>
</tr>
<tr>
<td>Cochlear Implant</td>
<td>216</td>
<td>461</td>
<td>677</td>
</tr>
<tr>
<td>Voice</td>
<td>384</td>
<td>226</td>
<td>610</td>
</tr>
<tr>
<td>Rhinology</td>
<td>198</td>
<td>49</td>
<td>247</td>
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<tr>
<td>Head and Neck Cancer</td>
<td>1,376</td>
<td>4,522</td>
<td>5,898</td>
</tr>
<tr>
<td>Radiology Conference</td>
<td>941</td>
<td>-</td>
<td>941</td>
</tr>
</tbody>
</table>

Community service clinics
Twice weekly clinics in community hospital in Ballabghar with once a week operating facilities.
Weekly clinics in primary health centre in Gurgaon
Weekly clinics in community hospital in IIT Delhi

The department is providing daily OPD services at Outreach OPD Jhajjar.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Suresh Chandra Sharma was President, AIIMS, Jodhpur; Fellow (Member of University Senate), Panjab University, Chandigarh; Member, Institute Body, Standing Purchase Committee and Standing Estate Committee of PGIMER, Chandigarh; Chairman, HR Sub-committee of PGIMER, Chandigarh; Honorary Advisor (Deafness), under the National Programme for Prevention and Control of Deafness (NPPCD) in the Ministry of Health and Family Welfare, Government of India, New Delhi; Member, Technical Steering Committee, National Programme for Prevention and Control of Deafness (NPPCD) in the Ministry of Health and Family Welfare, Government of India, New Delhi; Member, Authorization Committee under the Transplantation of Human Organs Act, 1994, AIIMS, New Delhi; Subject Expert, Committee for Sleep disorders, cognitive dysfunction and ENT projects under the programme entitled “Possible Impact of EMF Radiation Exposure from Mobile Towers and Handsets on Life and related R&D initiatives”; Science and Engineering Research Board, Government of India, Vasant Kunj, New Delhi; Chairman, ‘Ear, Nose and Throat Surgery Instruments’ Sectional Committee of Bureau of Indian Standards (MHD04); Member, Executive Committee of the Haryana Welfare Society for Persons with Speech and Hearing Impairment, Panchkula; Member, Committee to taking initiative of promoting a culture of excellence in the new AIIMS (constituted by Hon’ble Minister of Health and Family Welfare, GOI); Visiting Professor in Department of ENT, AIIMS, Rishikesh; Chief Guest, Annual Day Function of AIIMS, Jodhpur held on 3 December 2018; Invited Chief Guest, First Convocation of AIIMS, Jodhpur held on 22 January 2019.

Professor Alok Thakar was Chairperson, ICMR Committee for Standard Treatment Workflows in ENT, 2019; Vice-Chairperson, Subcommittee for Medical Devices, Standing National Committee on Medicines; Visiting Professor, Department of Neurosurgery and Neuro-otology, SGPGIMS, Lucknow, 11-16 February 2019; Delhi AOI Oration—A candle loses nothing by lighting another 42nd Annual Meeting of the Delhi Association of Otolaryngologists of India (DelAOI), 2 March 2019; Keynote Lecture—Maximizing Functional Outcomes in Lateral Skull Base Surgery, Armed Forces Medical College, Pune, 22-23 February 2019.
Professor Rakesh Kumar was Honorary President of Neuro-Otological and Equibriometric (NES) Society of India for the year 2018-2019; Visiting Professor, Department of ENT at IGIMS Patna—Helping them with their cochlear implant programme; Visiting Professor, at Department of Otorhinolaryngology at AIIMS, Rishikesh; Member of BIS Committee looking after the Indian standards for ENT instruments; Organising Chairperson of 4th AIIMS Facial Plasties and Rhinoplasty Cadaveric Workshop on 23 February 2019; Keynote Lecture on cochlear implant-outcome at 38th Annual Conference of the Neuro-Otological and Equibriometric (NES) Society of India, 29-31 March 2019, Bengaluru.

Dr Kapil Sikka was Editorial Board Member and Assistant Editor, Indian J of Otology; Reviewer, Indian J Otology, Indian J Otolaryngology, Head and Neck Surgery, Indian J Paediatrics, Indian J Cancer; Joint Secretary, Association of Otolaryngologists of India, Delhi State Branch; Hony Treasurer, Otorhinolaryngologic Research Society of AIIMS (ORSA), 2017-; Organising Secretary, International Head and Neck Cadaveric workshop; Mentoring team, Cochlear Implant Programme at JNU Aligarh and DMC Ludhiana; Rural Service: Member of Medical camp to serve rural people deprived of proper medical health facilities at Naudera, District - Pratapgarh, Uttar Pradesh organized by community development committee on 13-14 October 2018; Member, ICMR team for VIP reference on Hearing Impairment in Baradhi Village of Jaridih Block, Bokaro District, Jharkhand; Visited the place from 26 June to 29 June 2018 for investigating the problem; Participated in live TV health show on Doordarshan on 22 September 2018 on “ENT Health problems with changing season” and interacted with live callers and addressed health issues; Member Medical Board, AIIMS; Member, editorial team for research directory, AIIMS; Course coordinator Live Cadaveric demonstration: Neck Dissection First international Head and neck Cadaveric dissection course and 7th AIIMS course 26-30 March 2019, ACSST Facility, AIIMS, New Delhi; Guiding Faculty 8th Hands on Temporal Bone Dissection Course, 22-24 March 2019, AIIMS, New Delhi; Course Organiser, Live demonstration, Neck Dissection 6th AIIMS Head and Neck Cadaveric course, November 2018, AIIMS, New Delhi; Chaired a Session on “Skull Base” presented 18th National Meeting of Foundation of Head and Neck Oncology and International Federation of Head and Neck Oncologic Societies, 25-28 October 2018, Kolkata, India; Award poster titled “Open Partial Laryngectomy in Radio-recurrent Laryngeal Cancers,” 18th National Meeting of Foundation of Head and Neck Oncology and International Federation of Head and Neck Oncologic Societies, 25-28 October 2018, Kolkata, India; Judge, free paper session, 3rd National Meeting of Indian Society of Thyroid Surgeons, 24-26 August 2018, TMH, Mumbai; Course organizer and talk on “Devices and companies-makes and Models”, and also guided the delegates on hands on temporal bone dissection and electrode insertion training and also on follow up nuggets; Structured Cochlear Implantation Course for Surgeons, 26-27 April 2018, AIIMS, New Delhi.

Dr David Victor Kumar Irugu was Judge in Poster Presentation, 4th AOI State Conference, Telangana, on 14-16 September 2018, Siddipet, Telangana.

Dr Chirom Amit Singh was Organising Secretary, International Head and Neck Cadaveric workshop; Organised and conducted Microvascular anastomosis workshop (Live rate model) on 12-15 September 2019; Course Co-ordinator for Trans Nasal Esophagoscope (TNE) in AIIMS Laryngology Update-2019 held on 10-12 March 2019; Organising Chairperson in 4th AIIMS Facial Plastics and Rhinoplasty workshop held on 21-24 February 2019; One of the member of AIIMS team who conducted health camp at SNM Hospital, Ladakh, from 25 to 29 October 2018.

Dr Prem Sagar was winner of Gold Medal for best surgical video (“closed tympanoplasty facial nerve decompression”) in S. P Soni video presentation session on 1 April 2018 in 41st Annual Conference of AOI, Delhi Branch, New Delhi; Winner of Third prize in Junior consultant paper presentation for “Sinosonal mucormycosis: 5 year institutional experience” during RHINOCON 2018, 4-7 October 2018 in AIIMS, BBSR; Winner of Third prize in Video presentation competition for my surgical video on “Facial nerve decompression by closed tympanoplasty approach” in 27th Annual Conference of Indian Society of Otology (ISOCON 2018), 16-18 November 2018 in Mysore, Karnataka; Member of Expert Group for Standard Treatment Workflows (STWs) for ENT by Ministry of Health and Family Welfare, Government of India; Member of the panel on ENT Surgery Instruments Sectional Committee, MHD 04 by Bureau of Indian Standards; Honorary Editor of Association of Otolaryngologists of India, Delhi Branch, 2018-2019; Executive body member of NES- India, 2019-2020; Reviewer in Indian Paediatrics Journal, official publication of the Indian Academy of Paediatrics (IAP), Springer Nature; Invited ENT Specialist in health programme Aayushman Bhava: Sinusitis aired live on Rajya Sabha TV on 19 January 2019 (11 am-12 pm).

Dr Arvind Kairo received award for pare presentation in ISOCON 2018 for junior consultant paper award; Organized 1st Voice Cadaveric workshop on 20 April 2018 as the Course Secretary; Organized 1st Airway Cadaveric workshop on 21 April 2018 as the Course coordinator; Organized 4th AIIMS Facial Plastics and Rhinoplasty Cadaveric Workshop on 23 February 2019 as Course Secretary; Organized Advanced Temporal Bone Dissection Course on 22 March 2019 as Course Secretary; Organized 1st Thyroplasty hands-on Workshop on animal model on 10 March 2019 the Course coordinator.

Dr Shuchita Singh Pachaury organized 1st Voice Cadaveric workshop on 20 April 2018 as the Course Secretary; Organized 1st Airway Cadaveric workshop on 21 April 2018 as the Course coordinator; Organized AIIMS Laryngology Update 2019 from 10 March to 12 March 2019 as Course Secretary; Workshop co-ordinator for “Workshop on Swallowing rehabilitation and FEES” and “Workshop on EMG and Stroboscopy”.

Dr Hitesh Verma won the best paper award at RHINOCON 2018 and AOI Delhi Branch; Judge resident E poster Haryana AOI, 24-25 November 2018, MM Medical College, Mullana; Chairperson—How to improve the outcome in OSA surgeries IASSACON, 29-31 March 2019, PGIMER, Chandigarh.
## 9.27. Paediatrics

### Professor and Head
Ashok K Deorari (Neonatology)

### Professors

- Vinod K Paul (On deputation to NITI Ayog)
  - (Neonatology)
- Arvind Bagga
  - (Nephrology)
- Sushil K Kabra
  - (Pulmonology, Intensive Care, Tuberculosis)
- Madhulika Kabra
  - (Genetics)
- Pankaj Hari
  - (Nephrology)
- Sheffali Gulati
  - (Neurology)
- Rakesh Lodha
  - (Pulmonology, Intensive Care, Tuberculosis)
- Rachna Seth
  - (Oncology)
- Vandana Jain
  - (Endocrinology)
- Ramesh K Agarwal
  - (Neonatology)

### Assistant Professors

- Neerja Gupta
  - (Genetics)
- Jeeva Sankar
  - (Neonatology)
- Biswaroop Chakrabarty
  - (Neurology)
- Kana Ram Jat
  - (Pulmonology, Intensive Care, Tuberculosis)
- Rajni Sharma
  - (Endocrinology)
- Anu Sachdeva
  - (Neonatology)
- Prashant Kumar Jauhari
  - (Neurology)
- Rohan Malik
  - (Gastroenterology)
- Jagdish Prasad Meena
  - (Oncology)
- Narendra Kumar Bagri
  - (Rheumatology)
- Aditya Kumar Gupta
  - (Oncology)
- Ankit Verma (Contract)
  - (Neonatology)

### Scientists

- Madhumita Roy Chowdhary
- Rashmi Shukla (Contract)
- GP Das (Medical)
- Kajal Jain

### Other Staff

- Anuja Agarwala (Dietician)
- Sumita Gupta (Senior Physiotherapist)
- Pallavi Mishra (Biochemist)
- Sadhna Arora (Technical Officer)
- Dhaneshwar Yadav
  - (Medical Social Service Officer)
- Neena Mehta

### HIGHLIGHTS

The Paediatrics Department started a new DM programme in Paediatrics Medical Oncology. Only department at AIIMS which holds this distinction of running six DM courses, two WHO collaborating centres (WHO Collaborating Centres one in Newborn Training and Research in Newborn Care and another on Training in Clinical and Laboratory Genetics) and two ICMR advanced centres of excellence (Nephrology and Pulmonology) and a Centre for Advanced Research for Childhood Neurodevelopmental Disorders.

**Consultation meeting for therapy for Rare Diseases funded by MOH&FW.** Division of Genetics Department of Paediatrics on behalf of the Central Technical Committee (CTC) for “Rare Disease-Treatment and Policy” organized meeting to prepare guidelines for management of RD. Guidelines draft was circulated to experts in the country. Final evidence-based guidelines have been submitted to the MOH for approval.
Division of Neonatology got recognised sixth time consecutively as WHO Collaborating Centre (2019-2023) for training and research in Newborn Care by WHO HQ’s.

The Division of Neonatology has partnered with PGI, Chandigarh and GMCH, Chandigarh, and Public Health Foundation of India to improve the quality of care of preterm neonates being treated in Special Newborn Care Units (SNCU) in 4 states of the country. The major objective of this activity is to reduce the incidence of Retinopathy of Prematurity (ROP) in preterm neonates by implementing evidence-based practices. The work is funded by Queen Elizabeth Diamond Jubilee Trust, UK.

Child Neurology Division organized Neuropedicon 2018, 18th National Conference of IAP Neurology Chapter of IAP, Emerging trends and Advances in Diagnostics and Therapeutics in Paediatric Neurology from 7-9 September 2018 at The Leela Ambience, Gurugram.

The Asian Journal of Paediatric Nephrology (www.ajpn-online.org), of which Professor Arvind Bagga is the editor and Professor Pankaj Hari and Dr Aditi Sinha are on the Journal Committee, was launched in 2018.

EDUCATION

Department is running six DM courses in Neonatology, Nephrology, Neurology, Genetics, Oncology and Pulmonology and Intensive care with 43 students enrolled. A Vibrant PhD programme is ongoing with five students.

MD Programme: A MD programme involving a total of 37 students is ongoing. There are regular teaching sessions and a system of ongoing internal assessment. New flip class teaching by Faculty once a month has been introduced. We undertook several training workshops including the Neonatal resuscitation for postgraduate students of the department on 21 April 2018 and 29 September 2018 and Ventilation Workshop for the fo postgraduate students of the department 28-31 March 2019.

DM Programme: All the divisons have regular structured teaching activities 3-5 times a week. Interdisciplinary and interdepartmental teaching in the form of integrated seminars and case discussions, are encouraged in all disciplines. Regular small workshops and interactive case discussions involving residents and faculty are held. Pulmonology Division uses Telemedicine to connect to other institions. Neonatolgy Division organised weekly workshops on common topics such as Kangaroo Mother Care, Total Parenteral Nutrition, understanding equipments, which involve hand on training of residents and nurses. The division organised 24 such workshops in the last year.

MBBS teaching

1. Departmental faculty is involved in bedside teaching of MBBS students during their posting in Paediatrics (OPD and wards) along with lectures, structured tutorials and integrated seminars
2. Department of Paediatrics have contributed for the development of skill modules for Undergraduate Medical students for SET facility
3. Division of Neonatology organised a workshop for seventh semester students on Standard Treatment Protocols for management of Sick neonates using wall charts, simulators, tablets, case studies and another workshop on quality improvement using posters, small group interactions in the seventh and eighth semesters

Endocrinology

Formation of AIIMS Paediatric Endocrinology Consortium (APEC), with the aim of mentoring the development of the specialty at other AIIMS, so that patients with pediatric endocrine disorders receive appropriate care near their homes and teaching-training activities at these institutes are streamlined. We reached out to 6 AIIMS, of which three have become active members (Bhopal, Bhubaneswar and Jodhpur). They are likely to send their faculty for observership to AIIMS, Delhi.

Neonatology

Division of Neonatology developed a multi-model learning resource material on ‘Care of preterm neonates’ for district health facilities by collaborative effort involving leading institutions and neonatologists in the country. Along with WHO-SEARO, the division developed a module on Point of Care Quality Improvement (POCQI-1,2) which has been incorporated in LaQshya Programme of GOI for improving labor room care practices for mothers and newborn. The module is available online on www.pocqi.org

Nurses Teaching

Online courses for nurses/paediatricians

The online education platform of the Division of Neonatology hosts ‘Sick newborn care course for 3 months; Newborn nursing and quality improvement course for 10 weeks. This platform trained doctors and nurses (2018-2019) from different countries in the SEAR in sick newborn care and essential newborn care.

Faculty of department is actively involved in teaching of MSc nursing (Paediatrics).
Inter departmental collaboration: The department provides training for DM students from various departments including: Infectious Diseases (Department of Medicine), Intensive Care (Department of Anesthesiology), Neurology and Cardiac Anesthesiology.

The department conducted special bi-annual symposia on Nutrition and Emergency Care for children for all the residents and faculty.

Short term trainees: A total of 41 short term/long term trainees were trained in various divisions. Details are as follows:

Genetics
1. Mr Mohd Shariq, 19 June 2018 to 18 July 2018 (One month), Cytogenetic Lab, Central University of Punjab, City Campus, Mansa Road, Bathinda
2. Dr Pratibha Yadav, 1-30 November 2018 (One month), Genetic OPD, VMMC and Safdarjung Hospital, New Delhi-110029
3. Dr Meenakshi, 1-30 November 2018 (One month), Genetic OPD, VMMC and Safdarjung Hospital, New Delhi-110029
4. Dr Udaya Kumar DS, SR (DM Hematopathology), 1-10 May 2018 (10 days), Molecular/Cytogenetic/Biochemical, Department of Hematology, AIIMS, New Delhi
5. Dr Dange Prasad Sudhir, SR (DM Hematopathology), 11-21 August 2018 (10 days), Molecular/Cytogenetic/Biochemical, Department of Hematology, AIIMS, New Delhi
6. Dr Debdas Bose, SR (DM Hematopathology), 11-20 September 2018 (10 days), Molecular/Cytogenetic/Biochemical, Department of Hematology, AIIMS, New Delhi
7. Dr Richa Juneja, SR (DM Hematopathology), 1-10 November 2018 (10 days), Molecular/Cytogenetic/Biochemical, Department of Hematology, AIIMS, New Delhi
8. Dr Kundan Kumar, JR (Academic), 1-31 July 2018 (One month), Molecular/Cytogenetic/Biochemical, Department of Laboratory Medicine, AIIMS, New Delhi
9. Dr Shreyam Acharya, JR (Academic), 1-28 February 2019 (One month), Molecular/Cytogenetic/Biochemical, Department of Laboratory Medicine, AIIMS, New Delhi
10. Dr Tanu, 1-30 September 2018, Clinical+ Lab exposure, Division of Neonatology, Department of Paediatrics
11. Dr Srikanth, 1-31 October 2018, Clinical+ Lab exposure, Division of Neonatology, Department of Paediatrics
12. Dr Surjeet, 1-31 January 2019, Clinical+ Lab exposure, Division of Neonatology, Department of Paediatrics
13. Dr Shruthi, 1-30 April 2018, Clinical+ Lab exposure, Division of Neurology, Department of Paediatrics
14. Dr Vivek, 1-31 May 2018, Clinical+ Lab exposure, Division of Neurology, Department of Paediatrics
15. Dr Prabhjot, 1-30 September 2018, Clinical+ Lab exposure, Division of Neurology, Department of Paediatrics
16. Dr Badal, 1-31 October 2018, Clinical+ Lab exposure, Division of Neurology, Department of Paediatrics
17. Dr Jaya Jethra, 14 January 2019 to 10 February 2019, Clinical+ Lab exposure, Fetal Medicine, Department of Obstetrics and Gynecology
18. Dr Anubhuti Rana, 4-31 March 2019, Clinical+ Lab exposure, Fetal Medicine, Department of Obstetrics and Gynecology

Neonatology (4)
1. Dr Rupesh Kumar, M.G.R. Medical University, Madurari, India, 1-31 October 2018
2. Dr Nitu Mundhra, K.E.M Hospital, Mumbai, 18-24 October 2018
3. Dr Somalika Pal, M.A.M.C., New Delhi, 1-15 October 2018
4. Dr Lokraj Shah, BP Koirala Institute of Health Sciences, Dharan, Nepal, 15 October 2018 to 15 January 2019

Nephrology (5)
1. Lieutenant Colonel Aditi Sharma, Classified specialist Paediatrics Indian Army Forces (2-year training, from August 2018)
2. Lieutenant Colonel Zaw Min Htwe, Lecturer/ Consultant Paediatrician, Department of Paediatrics, Defense Services Medical Academy, Yangon, Myanmar-6-months, beginning November 2018
3. Dr Jasitha Sabanadesan, Trainee in Paediatric Nephrology, Sri Lanka, (2-year, beginning in March 2019)
4. Dr Suchitra Sehgal, Assistant Professor of Paediatrics, Dr Ram Manohar Lohia Postgraduate Institute of Medical Education and Research, New Delhi, May-August 2018
5. Dr Swapnil, Assistant Professor of Paediatrics, Dr D Y Patil Medical College and Hospital, March-June 2018
Neurology (3)
1. Ms Astha Sharma, 25 November 2017 to 15 April 2018
2. Dr SK Masiur Rahman (Bangladesh), 12 March 2018 to 31 May 2018
3. Dr Md. Abu Sayed (Bangladesh), 18 February 2019 to 14 April 2019

Paediatric Pulmonology and Intensive Care (17)
1. Dr Probir Kr Sarkar, Short term trainee from Bangladesh, 1 January 2018 to 30 September 2018
2. Dr Satnam Kaur, Trainee from Safdarjung Hospital, 1 February 2018 to 20 July 2018
3. Dr Sheetal Agarwal, short term trainee from RML Hoptal, 11 June 2018 to 10 September 2018
4. Dr Sapna Taneja, Short term trainee from ESIC Hospital, February 2019-August 2019
5. Dr Sudha, Short term trainee from RML Hospital, February-May 2019
6. Dr Aruna Herath, Long term trainee, April 2018-March 2019
7. Dr Yogiraj, April 2018 (DM fellow in Infectious Disease)
8. Dr Farhan, April 2018 (DM fellow in Infectious Disease)
9. Dr Parul, May 2018 (DM fellow in Infectious Disease)
10. Dr Rohit, May 2018 (DM fellow in Infectious Disease)
11. Dr Netto George, July 2018 (DM fellow in Infectious Disease)
12. Dr Anivita Aggarwal, July 2018 (DM fellow in Infectious Disease)
13. Dr Chhavi Gupta, August 2018 (DM fellow in Infectious Disease)
14. Dr Soumyadip, September 2018 (Fellow in Infectious Disease)
15. Dr Sameer Abdul Samad, September 2018 (Fellow in Infectious Disease)
16. Dr Sayan Chakraborty, November 2018 (Fellow in Infectious Disease)
17. Dr Neha Rastogi, 20-31 December 2018 (DM fellow in Infectious Disease)

CME, CONFERENCES
A total of 31 CME/conferences/workshops were organized by different divisions.

Endocrinology (1)
1. AIIMS Paediatric Endocrinology CME, 1 July 2018, AIIMS, Delhi

Gastroenterology and Hepatology (2)
1. Organized the 1st AIIMS Paediatric Celiac Disease Symposium and the 8th Celiac Day at JLN auditorium AIIMS on 28 October 2018, Over 150 delegates attended
2. Operationalized data management in the pediatric gastro clinic

Genetics (5)
1. AIIMS-IGIB Joint Hands-on Workshop on Exome Sequence Analysis and Interpretation, 25-26 July 2018, Delhi consultation meeting for therapy for Rare Diseases, 18-19 July 2018, Delhi
2. MPS Awareness Day, 15 May 2019, Delhi
3. Prader Willi Syndrome parent group meeting jointly organised by AIIMS New Delhi and Indian Prader-Willi Association (IPWSA), 12 September, Delhi
4. IEM Day, Division of Genetics Department of Paediatrics in association with “MERD India” a parents group on Inborn errors of metabolism and “IEM Support Charitable Trust”, 15 December, Delhi
5. Turner Syndrome Symposium—An Indo US Educational activity jointly organised by University of Colorado, Sir Ganga Ram Hospital and All India Institute of Medical Science, 27 January 2019, Delhi

Neonatology (9)
1. Formulation of care packages for neonatal disorders for PM-JAY (Ayushman Bharat) scheme, 6-7 May 2018, New Delhi
2. Preterm baby care and quality improvement workshop, 4-5 December 2018, AIIMS, New Delhi
3. Preterm baby care and quality improvement workshop, 11-13 January 2019, AIIMS, New Delhi
4. Standard treatment workflows development meetings, October 2018-March 2019, AIIMS ICMR DHR, New Delhi
5. Workshop for faculty on Quality Healthcare and Patient safety, 4-5 February 2019, Raipur, AIIMS, Chhattisgarh
6. Training on Essential New Born Care and Quality improvement for MNH, 11-17 August 2018, Male’, Maldives
7. Odisha State Level Workshop on Facility Based care of Preterm and LBW infants, 26-28 December 2018, SCB Cuttack, Odisha
8. Regional level workshop on Point of Care for Quality Improvement (POCQI) on Newborn health for aspirational districts, 19-20 June 2018, Koraput, Odisha

Neurology (5)
1. In collaboration with the National Trust, Organized 4th National Workshop for Training of Master Trainers in Autism Tools INDT ASD and ISAA, (Ministry of Social Justice and Empowerment incollaboration with AIIMS), 6-8 April 2018, Vigyan Bhavan, New Delhi
3. Presentation: Demystifying a case of fever: The clinician’s conundrum during Delhi IAP meeting, 19 July 2018, Department of Paediatrics, AIIMS, New Delhi

Oncology (5)
1. Public lecture and panel discussion, Childhood cancer awareness, 27 February 2019, AIIMS, New Delhi
2. Patients education programme, Childhood cancer, 10 December 2018, AIIMS, New Delhi
3. Module on Infection control, Infection control, 11 November 2018, AIIMS, New Delhi
4. Patient education programme, Childhood cancer, 14 May 2018, AIIMS, New Delhi
5. North India Paediatric Oncology Forum (NIPOF), Acute Myeloid Leukemias, and other uncommon Paediatric Leukemias (Leukemias of Ambiguous Lineage/MPAL’s and JMML), 23 February 2019, AIIMS, New Delhi

Nephrology (2)
1. Panel discussion, public lectures, CMEs; The World Kidney Day with the theme ‘Kidney health for everyone, everywhere’, 10-16 March 2019, AIIMS, New Delhi, Chacha Nehru Bal Chikitsalaya, New Delhi and AIIMS, Bhopal
2. CME, Core principles in hemodialysis, 9 December 2018, AIIMS, New Delhi

Pulmonology, Intensive Care, Tuberculosis (2)
1. Organ dysfunction in ICU and supportive care, 5-6 May 2018, Conference Hall, AIIMS, New Delhi
2. 3rd Cystic Fibrosis conference and parents education, 6 September 2018, Conference Hall AIIMS, New Delhi

CMEs/Workshops/Symposia/National and International Conferences

Faculty Members Participated in 256 activities in CMEs (National and International)

Vandana Jain (13)
1. Initiation of therapy in Idiopathic Short stature—Diagnosis, therapy and follow-up Growth Hormone Symposium, organized by Growth Hormone Society of India and Indian Society of Paediatric and Adolescent Endocrinology, 29 April 2018, New Delhi
2. Idiopathic short stature: Role of Growth Hormone Growth Hormone Research Society Annual Meet 2018, 9 June 2018, Apollo Hospital, Delhi
3. The silent epidemic: Obesity, Metabolic syndrome, NAFLD, type 2 diabetes in adolescents, AIIMS Paediatric Endocrinology CME, 1 July 2018, AIIMS, Delhi
4. The scope and future of DM Paediatric Endocrinology in India: Moderator of panel discussion, AIIMS Paediatric Endocrinology CME, 1 July 2018, AIIMS, Delhi
5. Consensus guidelines for management of Growth Hormone Deficiency, Meeting for preparation of guidelines for treatment of rare diseases organized by Genetics Unit and MoHFW, 19 July 2019, SET Facility, AIIMS, Delhi
6. Panel discussion: Endocrine issues and their management in Prader Willi Syndrome, Indian Prader Willi support organization meeting, 5 September 2018, AIIMS, New Delhi
7. Metabolic syndrome: Is it all about lifestyle, Pre-conference workshop on Adolescent Endocrinology, Adolescon, 23 November 2018, Maulana Azad Medical College and Lok Nayak Hospital, New Delhi
8. Approach to a short child, Paediatric Endocrinology CME for postgraduates, organized by Lady Harding Medical College, 22 December 2018, Kalawati Saran Children’s Hospital, Delhi


10. The epidemic and genesis of childhood obesity, Indo-European Congress workshop on Non Communicable Diseases, 1 February 2019, Dr Ramalingaswami Boardroom, AIIMS, New Delhi


12. Diabetic Ketoadosis, 2nd Practical Pediatric Endocrinology Course, organized by MAMC, Delhi and Growth and Obesity Workforce, Kanpur, 23 February 2019, India Habitat Centre, New Delhi

13. Medical Management of Disorders of Sex Development, 12th Paediatric Surgery Update 2019, organized by MAMC, Delhi, 8 March 2019, Ahalyabai Nursing College LT, MAMC, Delhi

**Rajni Sharma (9)**

1. Growth Hormone in Growth Hormone Deficiency, Growth Hormone Symposium, organized by Growth Hormone Society of India and Indian Society of Paediatric and Adolescent Endocrinology, 28 April 2018, Aerocity, New Delhi

2. Diabetic ketoadisis; What’s new? AIIMS, AIIMS Paediatric Critical Care CME, 7 May 2018, AIIMS, New Delhi

3. Approach to disorders of sex development, AIIMS Paediatric Endocrine CME, 1 July 2018, AIIMS, New Delhi

4. Panel discussion on Endocrine management of patients with Prader Willi syndrome, Indian Prader Willi support organization at AIIMS, 5 September 2018, AIIMS, New Delhi

5. When to investigate in a child with short stature Paediatric Endocrinology CME, organized by North Delhi Indian Academy of Paediatrics, 9 September 2018, Rohini, New Delhi

6. Panel discussion, on long-term complications of coeliac disease Postgraduate case discussion on endocrine manifestations of coeliac disease, Coeliac Support Organization Conference, 28 October 2018, AIIMS, New Delhi

7. Endocrine Problems in Thalassemia, 8th National Thalassemia Conference, 25 November 2018, Lady Hardinge Medical College, New Delhi

8. Electrolyte imbalance: Hyponatremia and hypernatremia, Paediatric Endocrinology CME for postgraduates organized by Lady Harding Medical College, 22 December 2019, Kalawati Saran Children’s Hospital, New Delhi

9. Panel discussion on Resistant Rickets and bone disorders, Annual Conference of the Indian Academy of Paediatrics (PEDICON), 9 February 2019, Mumbai

**Rohan Malik (4)**

1. Advances in Paediatric Gastroenterology in the last year, PEDGASTROCON, 26 October 2018, Mumbai

2. Small Bowel evaluation in children: What is optimal, ISGCON, 10 November 2018, Bolgatti, Kochi

3. Cows Milk protein Allergy, PEDICON, 10 February 2019, Mumbai

4. Celiac Disease, IAP South Delhi, 28 February 2019, IAP Monthly Meet, New Delhi

**Madhulika Kabra (13)**

1. MPS I—Experience from India, 3rd South Asia LSD Symposium, 21 April 2018, New Delhi

2. Genetics and Epigenetics of Neural tube defects, 28th Annual Meeting of the International Federation of Spina Bifida and Hydrocephalus, 10 August 2018, New Delhi

3. Newborn screening, ICMR Course SGPGI, 22 August 2018, Lucknow

4. Approach to Degenerative Brain Diseases, ICMR Course SGPGI, 22 August 2018, Lucknow


6. Genetics in Paediatric Practice, CME on Genetic disorders and IEM, 21 September 2018, Raipur

7. Mucopolysaccharidosis Type 1, CME on Genetic disorders and IEM, 21 September 2018, Raipur

8. Genetic testing in the present era-applications and challenges, Association of Medical Biochemists of India, 18 November 2018, New Delhi

9. Rare diseases: National initiatives for better diagnosis and management, Bengaluru Technical Summit, 29 November 2018, Bengaluru

11. Gene therapy, PEDICON, 8 January 2019, Mumbai
12. Rare Disorders in Indian context, RD Day MAMC, 28 February 2019, New Delhi

**Neerja Gupta (11)**

1. Pompe disease—Experience from India, 3rd South Asia LSD Symposium, 21 April 2018, New Delhi
2. Previous child with intellectual disability, Session—Preconception counseling for common problems, CME in Maternal Fetal Medicine, 13 May 2018, New Delhi
3. Lysosomal storage disorders, Single center experience from India, 11th Asian Pacific MPS network, 31 May 2018, South Korea
4. Managing Quality of Data, in birth defect surveillance, Lessons learned, Regional meeting on reducing newborn mortality with a focus on birth defects’, 9 August 2018, New Delhi
6. Acute metabolic disorders—Case based presentation, 17th ICMR course on Medical Genetics and Genetic counselling, 23 August 2018, SGPGI, Lucknow
7. Skin as a clue to the diagnosis, 17th ICMR course on Medical Genetics and Genetic counselling, 23 August 2018, SGPGI, Lucknow
8. ytogenetic Microarray, A revolution in Diagnostics, National workshop on Molecular Cytogenetics, 12 November 2018, AIIMS, New Delhi
9. Skeletal dysplasia—Case Scenarios with unique findings, SIAMG, 13 December 2018, CMC Vellore
10. Fatty Acid Oxidation defects, ISIEM, 18 January 2019, Pune
11. Fetal Autopsy, Pre Congress Workshop of NARCHI, 22 February 2019, New Delhi

**Rashmi Shukla (2)**

1. Prenatal Diagnosis of Genetic Disorders, Department of Human Genetics and Molecular Medicine, Central University of Punjab, 13 April 2018, Bhatinda
2. Classical and Molecular Cytogenetics, In Prenatal Diagnosis in India, All Russian Cytogenetics Conference, 31 August 2018, Moscow, Russia

**AK Deorari (20)**

2. Quality improvement collaborative a reality in India, 56th National Conference of Indian Academy of Paediatrics 9 February 2019, Mumbai
3. Quality Health care of patient safety, Workshop on Quality Improvement and Patient Safety, 4-5 February 2019 AIIMS, Raipur
5. Quality health care in Telangana vision for future, State Level Workshop on Quality Improvement, 28-29 December, 2018, Hyderabad
6. Multimodal learning for postgraduate students, B. Optimal oxygen administration small group teaching, State Level Workshop on Facility Based care of Preterm and LBW infants, 26-28 December 2018, Cuttack, Odisha
7. Quality of care, 8th Annual Convention of National Neonatology Forum, 14-16 December 2018, Varanasi
9. Quality improvement—New paradigm in neonatology, South NEOCON, 7 October 2018, Chennai
10. Quality health care in maternal and newborn, Workshop on POCQI, 14 September 2018, Kolkata
11. Training on Essential Newborn Care and QI for MNH in Maldives Male, 11-17 August 2018, Maldives
12. Regional Meeting on Accelerating Reduction of Maternal, Newborn Mortality and Stillbirths: Towards achieving the Sustainable Development Goals, 10-13 July 2018, New Delhi
14. Quality improvement for medical colleges lessons learnt, Quality Care Workshop, 25-27 June 2018, Shimla
15. Quality improvement in newborn care, Regional level workshop on Point of Care for Quality Improvement (POCQI) on newborn health, 19-20 June 2018, Koraput, Odisha
16. Quality improvement in newborn care, Chhattisgarh Newborn Action Plan Workshop (C-NAP), 13 June 2018, Raipur, Chhattisgarh
17. Quality improvement in newborn care, Conclave on “Newborn Care”, 3-5 May 2018, Bhubaneswar, Odisha
18. Visit as expert, Expert Advisory Group (EAG) Review Meeting and ENAP Management Team Meeting, 16-20 April 2018, New York, USA
19. Quality is SIMULS a journey workshop not a destination, SIMULUS Workshop, 2 March 2019, AIIMS, New Delhi
20. Neonatal improvement collaboratives—roadmap for India, NeoCore, 30 March 2019, JIPMER, Pondicherry

Ramesh Agarwal (4)
1. Prevention and treatment of MDR sepsis, Sepsis in neonates, 4 May 2018, New Delhi
2. Improving the Quality of Childbirth and Neonatal care in Primary Health Centers in Two Districts in Haryana: A Stepped Wedge Cluster Randomized Trial, Improving the Quality of Childbirth and Neonatal Care, 26-27 April 2018, Uganda
3. Improving the Quality of Childbirth and Neonatal care in Primary Health Centers in Two Districts in Haryana: A Stepped Wedge Cluster Randomized Trial, WHO QI SEAR meeting, 4 October 2018, New Delhi
4. Antimicrobial Stewardship Programme at AIIMS, AMSP workshop, organized by ICMR, 19 November 2018, New Delhi

M Jeeva Sankar (17)
1. Overview of ‘Hypothesis testing’, Principles and Practice of Clinical Research – NIH/DBT/ICMR supported workshop, 16-20 April 2018, Hyderabad
2. Using secondary data in statistical analysis, Principles and Practice of Clinical Research—NIH/DBT/ICMR supported workshop, 16-20 April 2018, Hyderabad
3. Clinical Trial (Parallel/Cross over; Superiority, Equivalence, Non-Inferiority), Workshop on Research Methodology for MD and DM/MCh residents, 2 May 2018, AIIMS, New Delhi
4. Case-control study, Young Clinicians’ Programme, Indian Society of Gastroenterology, 28 August 2018, Hyderabad
5. Understanding of Kaplan Meier curve, Young Clinicians’ Programme, Indian Society of Gastroenterology, 28 August 2018, Hyderabad
9. Comparison of several means (ANOVA), Workshop on ‘Basic Biostatistics’, 21-23 September 2018, SGPGI, Lucknow
10. Other measures of association (odds ratio, relative risk), Workshop on ‘Basic Biostatistics’, 21-23 September 2018, SGPGI, Lucknow
12. Clinical trial (Parallel/Cross over; Superiority, Equivalence, Non-Inferiority), Workshop on Research Methodology for MD and DM/MCh residents, 25 September 2018, AIIMS, New Delhi
13. Nutritional requirements of preterm and SGA, Meeting on ‘Early growth failure and SAM in infancy’ (by Indian Academy of Paediatrics and Society for Applied Studies), 23 October 2018, New Delhi
14. Evidence based intervention for LBW survival and care, NNF Newborn Week Celebration, 22 November 2018, New Delhi
15. Extensive antibiotic use and reservoirs of multidrug resistance, Hot Topics in Neonatology, 3 December 2018, Washington, DC
**Anu Sachdeva (7)**

1. Oxygen therapy in neonates, Non-invasive ventilation workshop, 7 May 2018, Swami Dayanand Hospital, New Delhi
2. Step 2: Quality Improvement, Quality Improvement, 27 and 28 June 2018, IGMC, Shimla
3. Step 3: Quality improvement, Quality Improvement training for improving healthy survival of preterm infants without ROP at Bhopal, 15-17 July 2018, GMC, Bhopal
4. Intermittent mandatory ventilation: Nuts and bolts, Ventilation workshop at AIIMS, 6 and 7 September 2018, Jodhpur, AIIMS
6. Simulation under the head of Preside Meeting, 16 November 2018
7. St John’s medical college Bangalore, Fluids and electrolytes in Surgical Neonates, Paediatrics Surgery Update, 7-10 March 2019, MAMC and associated Lok Nayak Hospital, New Delhi

**Arvind Bagga (8)**

1. Randomized controlled trials, Pre-primer workshop on 14 August 2018 and 3rd Primer in Paediatric Nephrology for Asia, 14 August 2018, National University of Singapore, Singapore
2. Hemolytic uremic syndrome, 3rd Primer in Paediatric Nephrology for Asia, 15 August 2018, National University of Singapore, Singapore
3. Refractory rickets, 3rd Primer in Paediatric Nephrology for Asia, 16 August 2018, National University of Singapore, Singapore
4. Neonatal acute kidney injury, 3rd Annual State-of-the Art Reviews in Neonatal-Perinatal Medicine Conference (18-20 October 2018) and visiting Professor at Akron Children’s Hospital, Akron, Ohio (21-24 October, 2018), 18-26 October 2018, Cleveland Clinics, Cleveland Akron Children’s Hospital, Akron, Ohio
5. Congenital nephrotic syndrome, 3rd Annual State-of-the Art Reviews in Neonatal-Perinatal Medicine Conference (18-20 October 2018) and visiting Professor at Akron Children’s Hospital, Akron, Ohio, 18-26 October 2018, Cleveland Clinics, Cleveland Akron Children’s Hospital Akron, Ohio
6. Steroid resistant nephrotic syndrome Renal tubular acidosis, 6th Saudi International Congress of Nephrology and Transplantation, 28-30 November 2018, King Saud University Riyadh, Saudi Arabia
7. Childhood vasculitis, NEPH-IMMUNE 2019, 3rd February 2019, Hotel Shangri-La, New Delhi
8. Acute kidney injury, Paediatric Nephrology update, 16 March 2019, AIIMS, Bhopal, Madhya Pradesh

**Pankaj Hari (4)**

1. The new pediatric hypertension guidelines: What you need to know and how to implement in your practice, Paediatric Conference of North India, PCNI 2018, 24-25 November 2018, New Delhi
2. Long term outcome of steroid sensitive nephrotic syndrome, 30th Annual Conference of Indian Society of Paediatric Nephrology, ISPNCON, 30 November-2 December 2018, Hyderabad
3. Vesicoureteric reflux: Medical management, Paediatric Nephrology CME, 10 March 2019, Chacha Nehru Bal Chikitsalya, New Delhi
4. UTI: Common issues in office practice, 2nd Paediatric Nephrology Update for Practicing Paediatricians and Trainees, 16 March 2019, AIIMS, Bhopal

**Aditi Sinha (11)**

2. Acute peritoneal dialysis, Paediatric Dialysis Course, 3 August 2018, New Delhi
3. Extracorporeal therapies, Paediatric Dialysis Course, 4 August 2018, New Delhi
4. Antenatal hydronephrosis, Paediatric Nephrology Update 2018, 30 September 2018, Sir Ganga Ram Hospital, New Delhi
5. Molecular basis of hemolytic uremic syndrome, 3rd Annual Conference of Paediatric Research and Education Society of India, 17 November 2018, St. John’s Medical College Hospital, Koramangala, Bengaluru
6. Molecular basis of hemolytic uremic syndrome, 3rd Annual Conference of Paediatric Research and Education Society of India, 17 November 2018, St. John’s Medical College Hospital, Koramangala, Bengaluru
8. Ethical issues in management of steroid resistant nephrotic syndrome, International Paediatric Nephrology Association Core group meeting to form clinical practice recommendations for Steroid resistant nephrotic syndrome, 13 December 2018, The Irish College, Leuven, Belgium


10. Management of chronic kidney disease, Paediatric Nephrology Conference, 13 January 2019, Indore

11. Antenatal hydronephrosis, CME on Reflux Nephropathy: Removing the misconceptions, 10 March 2019, Chacha Nehru Bal Chikitsalaya, New Delhi

Sheffali Gulati (32)

1. Introduction to Autism; Diagnostic tools Overview; Multidisciplinary management 4th National Workshop for Training of Master Trainers in Autism Tools INDT ASD and ISAA (National Trust, Ministry of Social Justice and Empowerment in collaboration with AIIMS), 6-8 April 2018, Vigyan Bhavan, New Delhi


4. Overview of the Telehelpline and Teleconsultation Services Launch of National Child Neurology Tele-Helpline and Tele-Consultation Services for Childhood Neurodevelopmental Disorders, An AIIMS-IIFCL Joint Initiative, 12 April 2018, Dr Ramalingaswami Board Room, All India Institute of Medical Sciences, New Delhi

5. Moderated session on Epilepsy Counseling Social and Legal Aspects of Childhood Epilepsy Consensus Group meeting of Association of Child Neurology, 15 April 2018, Max Superspecialty Hospital, New Delhi

6. Panelist for a session on Neurocritical Illness Topic: Refractory Status Epilepticus Paediatric Pulmonology and Intensive Care Course, 5-6 May 2018, Conference Hall, AIIMS, New Delhi

7. Panelist for COMPASS Project launch meeting “Making parents their child’s therapist” Sangath, 2 June 2018, India Habitat Centre, Lodhi Road, New Delhi

8. Attended Expert group meeting and delivered a talk on “Sharing experiences: NDD management and Gaps and critical area to address for early intervention and rehabilitation of NDD collaboration with (MoHFW, MoSJE and other Governmentt and non Government Stakeholders) in the management and surveillance of Neuro-Developmental Disorders, Neurodevelopmental disorders, National Centre for Disease Control, 15 June 2018, Dte. GHS, MoHFW, GOI, 22, Sham Nath Marg, Delhi

9. Diverse ketogenic therapies (Classic, Atkins, Modified Atkins, and Low glycemic index treatment), And also co-chaired the second half of the workshop 12th Asian and Oceanian Epilepsy Congress (AOEC), 28 June-1 July 2018, Bali, Indonesia

10. AUTISM: A brief overview and Holistic approach MBCN School for Special Needs, Ponty Chadha Foundation, 10 July 2018, Noida, UP


12. Invited as a subject expert for two days consultation meeting for preparing guidelines for therapy of rare diseases under the chairmanship of Dr S Venkatesh, DG, Dte. GHS, Chairperson of DMD and SMA group and made group presentation on the same, Government of India, Ministry of Health and Family Welfare, 18 and 19 July 2018, SET Facility, 2nd Floor, Convergence Block, AIIMS, New Delhi

13. Neuro developmental disorders the Journey, the Dreams and Their Realizations: The Journey thus far (AIIMS Experience) Department of Paediatrics, 7-9 September 2018, Gurugram


15. Emerging paradigms in treatment of childhood epilepsy in the session entitled: Individualized diet therapy—Choosing the right KD therapy for the right patient, KETO 2018, 4-10 October 2018, Jeju, Korea

16. Public lecture and panel discussion on spinal deformities in children as a speaker and panelist, AIIMS, 23 October 2018, Jawaharlal Auditorium, AIIMS, New Delhi

17. Burden of cerebral palsy in India and various presentations, Cadaveric Workshop on MISS and Surgery for Cerebral Palsy/Spasticity ANTC 2018, 28 October 2018, AIIMS Trauma Center, New Delhi

18. Bachomai Mirgi, Lakshanaur Upchaar-Baatcheet, AIR, FM Rainbow, 1 November 2018, Aakashwani Bhawan, New Delhi
19. Workshop on “Mainstreaming children with learning disabilities in education”, as a resource person and conduct a technical session on “Assessment and Certification of students” with learning disabilities through SKYPE, Government of Nagaland, Department of School Education, 2 November 2018, Kohima, Nagaland
20. Participated in New India Sankalp Programme on Adoption for Children’s Day as a Panelist, Delhi Doordarshan, 14 November 2018, Copernicus Marg, Mandi House, New Delhi
22. Neurodevelopmental Disorders: Development of new tools-Going e way, IACPCON-2018, 24 November 2018, Kolkata, India
23. New tools for screening and diagnosis of Autism Spectrum Disorders, Also conducted a Workshop AIIMS modified INDT for Autism Spectrum Disorders, Attended Global Autism Convention, 10 December 2018, Bengaluru, Karnataka
24. Neurodevelopmental Disorders: Newer diagnostic tools-going e way, IAP, 10 February 2019, Mumbai, India
25. “Consenses Meeting on Craniopagus Twins” and delivered a talk on Craniopagus: Neurological and Neurodevelopmental issues, ICC, 14 February 2019, Board Room, Ramalingaswami Board Room, Director’s Office Complex, AIIMS, New Delhi
27. Interesting cases and discussion, International Workshop on ‘Nerve Muscle Disorders’, Department of Neurology, 17 February 2019, VMMC and Safdarjung Hospital, New Delhi
29. Diagnostic tools for ASD (DSM 5 based) and other neurodevelopmental disorders: Going e-way, Panelist in panel discussion entitled: Review of child’s progress through interdisciplinary collaboration, Presentation by electronic media, Behavior Momentum India Foundation, 23 February 2019, Bengaluru, India
30. Development of diagnostic tools for childhood neurodevelopmental disorders, Department of Electrical Engineering, 2 March 2019, Indian Institute of Technology, New Delhi
31. Childhood Epileptic Encephalopathy and panelist in Status Epilepticus, ECON 2019, 8-10 March 2019, Nehru Place, New Delhi

Biswa Chakrabarty (8)
1. Sleep related movement disorders, Paediatric sleep and non invasive ventilation: CME, 8 April 2018, BLK Hospital, New Delhi
2. ASD: Etiopathogenesis and role of medical and genetic investigations, Raising awareness on ASD: CME, 28 April 2018, PGI, Rohtak
3. Paediatric sleep; an overview, IAP Meet, 27 July 2018, Gurugram
4. Examination of an unconscious child, Clinical evaluation in Paediatric Neurology, 2 August 2018, LHMC, New Delhi
5. Acute flaccid paralysis, NEUROPEDICON, 9 September 2018, Gurgaon
6. Panelist: Celiac disease: Who to screen and groups at special risk, Celiac Disease CME, 28 October 2018, Jawaharlal Auditorium, AIIMS, New Delhi
7. Chairperson: Approach to a child with hemiparesis, 3rd AOCN master class in Paediatric Neurology for postgraduates, 3 February 2019, Bangla Sahib Road, New Delhi
8. Moderator: Cerebral palsy case presentation, Developmental workshop for postgraduates, 9 February 2019, MAMC, New Delhi

Prashant Jauhari (6)
1. Evidence based management of Autism, Raising awareness on ASD: CME, 29 April 2018, PGI, Rohtak
2. Febrile seizures and fever triggered Epilepsy, Neurological Issues in Clinical Experience (NICE) CME by IAP Gurgaon and Alchemist Hospital, 15 July 2018, Auditorium, Alchemist Hospital, Gurgaon
3. Approach to chronic Ataxia, NEUROPEDICON, 8 September 2018, Gurgaon
4. Evidence based management of Autism, REAACH (Research, education and awareness for Autistic children health) under IAP Noida, 14 October 2018, Sector 55, Noida
5. Chairperson: How to present a case of a child with Neurodegeneration? 3rd AOCN master class in Paediatric Neurology for postgraduates, 3 February 2019, Bangla Sahib Road, New Delhi

**Rachna Seth (11)**

1. E-Learning on Cancer Fundamentals, Indian cancer Society Presentation, 15 March 2019, Khalsa College, New Delhi
2. Childhood cancers, Sanjeevani Baat Sehat Ki, 14 March 2019, Doordarshan, New Delhi
4. Late Effects of Bone-marrow Transplant, Hematology and Radiation Therapy: Working Together- A collaborative approach in the management of hematological disorders’, 15 December 2018, Gurgaon
5. Neutropenia in children How I workup and manage, 22nd Annual Paediatric Hematology-Oncology Conference (PHOCON 2018), 30 November-2 December 2018, Bangalore, India
6. How to administer chemotherapy, Workshop on Paediatric Haematology Oncology Nursing, 29-30 September 2018, SSPHPGTI, Noida, Uttar Pradesh
7. Late effects and survivor passport, 4th National Cancer Survivor Conference, 8-9 (9th Half Day) September 2018, Air Force Auditorium, Subroto Park, New Delhi
8. Role of prophylactic antifungals in AML, 5th Midterm CME of Paediatric Hematology and Oncology Chapter of IAP, 1 July 2018, AIIMS, Bhubaneswar
10. Retinoblastoma, Doordarshan (DD) (Total Health), 13 May 2018, New Delhi
11. Tumor lysis syndrome and superior mediastinal syndrome: Management issues in the ICU, 7th Module of Paediatric Pulmonology and Intensive Care Course, 6 May 2018, AIIMS, New Delhi

**JP Meena (2)**

1. Thrombosis in children, Midterm CME of Paediatric Hematology-Oncology, 30 June 18, AIIMS, Bhubaneswar
2. Difficult scenarios in Ewings sarcoma, surgical aspects, axial disease, extraosseous disease, 22nd Annual Conference Paediatric Hematology-Oncology, 30 November-2 December 2018, Bangalore

**Aditya Gupta (6)**

1. Case scenarios in Rhabdomyosarcoma, Midterm CME of Paediatric Hematology-Oncology, 30 June-1 July 2018, AIIMS, Bhubaneswar
2. Paraneoplastic Syndromes in Neuroblastoma, 22nd Annual Conference Paediatric Hematology-Oncology, 30 November-2 December 2018, Bengaluru
3. Use of Growth factors in Paediatric Oncology, 22nd Annual Conference Paediatric Hematology-Oncology, 30 November-2 December 2018, Bengaluru
4. Relapsed AML, Meeting on Relapsed Lymphomkas/Leukemias, 1 February 2019, New Delhi
5. Best of ASH for Paediatrics, Best of ASH Meeting of Delhi Hematology Group—Year in review 2018, 16 February 2019, New Delhi
6. Update on managing Aplastic anemia and Febrile Neutropenia, Annual CME of KSCH, 24 February 2019, LHMC, New Delhi

**SK Kabra (60)**

1. Indian Medical Journals: Problems and solutions, In Conference the National Medical Journal of India: 30 years of publishing, In association with COPE and IAMJE, at AIIMS, Panelists, S Nundy, SK Pandya, Sushil Kabra, Sandhya Srinivasan, K Satyanarayana (Moderator), 7-8 April 2018, AIIMS, New Delhi
2. Severe acute asthma exacerbation: Recent advances and emerging concepts, In AIIMS Paediatric and Intensive Care Course Module VII: Organ dysfunction, 5-6 May 2018, AIIMS, New Delhi
3. Management of Community Acquired Pneumonia and Complications, In RESPICON UAE, 11-12 May 2018, Sharjah
5. Panel discussion on Childhood Asthma, RESPICON Emirates, Abudhabi, 11-12 April 2018.
9. Cystic fibrosis: When to suspect, how to diagnose and manage, In Sher I Kashmir Institute of Medical Sciences, Srinagar 28 June 2018, organized by SKIMS, Srinagar.
11. Childhood Asthma, In Update on Paediatric Pulmonology, 1 July 2018, Institute of Child Health, Kolkata.
14. Challenges in Managing Paediatric tuberculosis, at Resource Center for Tropical and Infectious Diseases (RCTID), 12 July 2018, AIIMS, Bhopal.
15. Pulmonary Tuberculosis: Symptoms, Microbiology, Diagnostic Algorithm, In Update on Tuberculosis, 1 July 2018, National Institute of Tuberculosis and Respiratory Diseases, Meharauli, New Delhi.
17. Chest radiology: Clinical vignettes based approach, In First Delhi RESPICON, 19 August 2018, Kalawati saran Children Hospital, New Delhi.
18. Acute Bronchiolitis, In First Delhi RESPICON, 19 August 2018, Kalawati Saran Children Hospital, New Delhi.
22. Paediatric TB—Newer Diagnostic and Treatment Guidelines, In North Zone PEDICON, 6-7 October 2018, Amritsar.
25. Imaging of Airways, In Course I: A Crash Course on Radiology in Paediatric Respiratory Medicine, 21st HKSPRA Annual Scientific Meeting, 19-21 October 2018, Hong Kong.
26. Imaging in Mediastinum: In Course I: A Crash Course on Radiology in Paediatric Respiratory Medicine, 21st HKSPRA Annual Scientific Meeting, 19-21 October 2018, Hong Kong.
27. An update on management of pneumonia, In 21st HKSPRA Annual Scientific Meeting, 19-21 October 2018, Hong Kong.
32. Dr Visweswara Rao Memorial Oration on Update on TB, In CENTRAL ZONE and TELUGU PEDICON, 3-4 November 2018, Vijaywada.
33. Difficult to treat Asthma, In CENTRAL ZONE and TELUGU PEDICON, 3-4 November 2018, Vijaywada.
34. Meet the Expert for Childhood Tuberculosis, In CENTRAL ZONE and TELUGU PEDICON, 3-4 November 2018, Vijaywada.
35. Expectations of an Editor from reviewers, In peer review of articles for journals, 11 November 2018, Maulana Azad Medical College, New Delhi.
36. Pulmonary Tuberculosis-Update, In UPPEDICON, 18 November 2018, Lucknow
38. Management of CF: Much more than Art of Airway Toilet and Infection control, In 30th RESPICON, 23-25 November 2018, Amber Convention Center, Indore
40. Coffee with masters: One to one discussion with lead faculty on 24 November 2018, In 30th National Conference of IAP Respiratory chapter (RESPICON 2018), 23-25 November 2018, Amber Convention Center, Indore
41. Under five wheezing: Typical wheezer and childhood asthma, In Glimpses into Paediatric respirology, Workshop in Napcon, 29 November 2018, Ahmedabad
42. Diagnosis and access to specimens (including video sessions on Tuberculin Testing, Gastric Aspirate and Induced sputum collection), In Glimpses into Paediatric respirology, Workshop in Napcon, 29 November 2018, Ahmedabad
43. Cystic Fibrosis in India, In Glimpses into Paediatric respirology, Workshop in Napcon, 29 November 2018, Ahmedabad
44. Interactive case discussion: Learning from Paediatric Respiratory Case Library Child with recurrent or persistent pneumonia, In Glimpses into Paediatric respirology, Workshop in Napcon, 29 November 2018, Ahmedabad
45. Video demonstration of indigenously developed Sweat Chloride testing, In Glimpses into Paediatric respirology, Workshop in Napcon, 29 November 2018, Ahmedabad
46. Changing face of mechanism and management of allergies, In INDO-US Symposium on Allergy and Asthma, 15-16 December 2018, AIIMS, New Delhi
47. Epidemiology and Brief history of CF care worldwide and in India, In Workshop on Cystic Fibrosis as part of CF India Project, 5 January 2019, Christian Medical College, Vellore
48. Diagnosis of CF—Suspect, Screen and Sweat (test), In Workshop on Cystic Fibrosis as part of CF India Project, 5 January 2019, Christian Medical College, Vellore
49. CF Parent support group—Experience from AIIMS model In Workshop on Cystic Fibrosis as part of CF India Project, 5 January 2019, Christian Medical College, Vellore
50. Looking forward-Envisioning a bright future for CF care in India, In Workshop on Cystic Fibrosis as part of CF India Project, 5 January 2019, Christian Medical College, Vellore
51. Demystifying cystic fibrosis, In CME on Paediatric Pulmonology, 12-13 January 2019, Jaipur
53. Acute bronchiolitis, Recent evidence In Cystic Fibrosis Meeting and Respiratory Update, 19-20 January 2019, AIIMS, Jodhpur
54. ChILD: When to suspect In Cystic Fibrosis Meeting and Respiratory Update, 19-20 January 2019, AIIMS, Jodhpur
55. Panel discussion: Paediatric TB, In Cystic Fibrosis Meeting and Respiratory Update, 19-20 January 2019, AIIMS, Jodhpur
56. Innovative approach in diagnosis of rare disorders: Cystic Fibrosis as Prototype oration on seven decade celebration of SMS Medical College, 25 January 2019, Jaipur
57. Cystic Fibrosis, In CME programme entitled “All About Cystic Fibrosis”, 27 January 2019, Institute of Child Health, Kolkata
59. Panel discussion: Interactive case discussion, In CME programme entitled “All About Cystic Fibrosis”, 27 January 2019, Institute of Child Health, Kolkata
60. Epidemiology of childhood TB, In National level, Trainers training on Childhood Tuberculosis, 5 February 2019, Mumbai

Rakesh Lodha (13)

1. Language and style, Workshop on Paper Writing, 5-6 April 2018, New Delhi
2. Results/Tables/Figures, Workshop on Paper Writing, 5-6 April 2018, New Delhi
3. References, Workshop on Paper Writing, 5-6 April 2018, New Delhi
4. Expectations of an editor from a peer reviewer, Workshop: How to peer review, 6 April 2018, New Delhi
6. Acute Respiratory Distress Syndrome: Refractory Hypoxemia, Organ dysfunction in ICU and supportive care, 5-6 May 2018, New Delhi
7. Renal replacement therapy in the ICU: Recent advances, Organ dysfunction in ICU and supportive care, 5-6 May 2018, New Delhi
8. Panelist: Lids are more than a handful, AIIMS Radiology Course, 5 August 2018, New Delhi
9. Pulmonary Tuberculosis: An Update, UP RESPICON, 14 October 2018, Lucknow
13. Diagnosis and Management of Paediatric sepsis, IAPA 2019, 10 February 2019, New Delhi

Kana Ram Jat (16)
1. Croup, Diphtheria, pertussis, and bronchiectasis, RTIGEM (Respiratory Tract Infection Group Education Module), 8 April 2018, New Delhi
3. Rhythm disturbances and defibrillator, IAP-Advanced Life Support Course, 14 April 2018, New Delhi
5. Asthma mimickers, long term management of asthma, Asthma Training Module (ATM) 12 August 2018, Chandigarh
6. Under 5 wheezers: Case based diagnostic approach, PRS (Paediatric Respiratory Society) Annual CME, 19 August 2018, New Delhi
7. Diagnosis and Management of pulmonary illness in cystic fibrosis, Cystic Fibrosis parent education meet, 9 September 2018, New Delhi
8. Childhood asthma: How to manage effectively, Indian Academy of Paediatrics (IAP) Meerut branch Meet, 23 October 2018, Meerut, UP
9. Lead discussant of session on Chronic Respiratory diseases, RESPICON 2018, 24 October 2018, Indore, MP
10. Case discussion with experts, RESPICON 2018, 24 October 2018, Indore, MP
11. Rhythm Disturbances and defibrillator, IAP-Advanced Life Support Course, 10 November 2018, New Delhi
12. Learning station-Cardiac arrest, IAP-Advanced Life Support Course, 11 November 2018, New Delhi
13. BLS in infants, Learning station-Respiratory emergency, IAPA – IAP- BASIC LIFE SUPPORT (BLS) AND ADVANCED LIFE SUPPORT (ALS) IN CHILDREN, 8 February 2019, New Delhi

Jhuma Sankar (6)
1. Septic shock: Beyond first hour resuscitation, NCPCC 2018, 16 November 2018, Coimbatore, India
2. To Give or Not? Assessing Fluid Responsiveness, NCPCC 2018, 17 November 2018, Coimbatore, India
3. Overlooked causes of refractory shock -diastolic dysfunction / right ventricular failure, IPCCI 2018, 21 October 2018, Hyderabad, India
4. Hyperferritenemia in the ICU, AIIMS PPIC Module VI: Organ dysfunction and support, 5 and 6 May 2018, AIIMS, India
5. Panel discussion: Refractory septic shock, AIIMS PPIC Module VI: Organ dysfunction and support, 5 and 6 May 2018, AIIMS, India
6. Panel discussion: Neurocritical illnes, AIIMS PPIC Module VI: Organ dysfunction and support, 5 and 6 May 2018, AIIMS, India
Narendra Kumar Bagri (3)

1. Prevention and management of infections in primary immunodeficiency, Current trends in diagnosis and management of primary immunodeficiency, 6 December 2018, Super Speciality Paediatric Hospital and Post Graduate Teaching Institute, Noida
2. Primary Immunodeficiency (chaired the session), National Conference of Paediatric Rheumatology Society of India, 15 December 2018, Jupiter Hospital, Thane
3. Chronic recurrent multifocal osteomyelitis, Delhi Rheumatology Association Meeting, 26 November 2018, Indian Habitat Center, Delhi

Dhaneshwar Yadav MSSO (4)

1. Sensitization on Availing Financial Assistance for Cancer Patients, Childhood Cancer Patient’s Educational Programme, 14 May 2018, JI Auditorium, AIIMS, New Delhi
3. Spread Awareness in Public about Availing Benefit of Pm-Jay (Ayushman Bharat), Public Lecture And Panel Discussion On Childhood Cancer, 27 February 2019, AIIMS, New Delhi,
4. GI Disorder and Transplant-Medical Social Work Perspective and Challenges, 6th Annual Conference Of All India Association Medical Social Work Professionals, 4 and 5 January 2019, JIPMER, Puducherry

Oral papers/posters presented (119)

A total of 119 oral/poster presentations were made by faculty, residents or research staff


12. Bagri NK, Gupta P, Sundaram DD. Familial Kawasaki syndrome: Thinking beyond infections, 6th Kawasaki Disease Summit of India, 3-4 November 2018, PGIMER, Chandigarh


14. Bagri NK, Sundaram DD, Saxena A, Kumar S. The Penance of Missing Clinical Clues of Kawasaki Disease, 6th Kawasaki Disease Summit of India, 3-4 November 2018, PGIMER, Chandigarh


20. Correa ARE, Kabra M, Gupta N. Clinical, Biochemical and Molecular Snapshot of Mucolipidosis II/III at a Tertiary Care Centre, 3rd South Asia and 19th Asia LSD Symposium, 20-22 April 2018, New Delhi


31. Faruqui N, Joshi R, Lowe J, et al. Exploring Barriers to Accessing Care for Childhood Cancers in India: A Qualitative Study (InNPOG-ACC-16-03), 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan


33. Genetic basis and phenotype of congenital nephrotic syndrome, First Annual AIIMS Research Day, 26 March 2019, AIIMS, New Delhi

34. Grover A, Agarwala A, Sharma R, Jain V. Insights of dietary pattern among children and adolescents with type 1 diabetes in Delhi, International Conference of International Society of Paediatrics and Adolescent Diabetes (ISPAD), 13-14 October 2018, Hyderabad


36. Gulati S, Jauhari P, Shruti NM, Panda PK, Mable J, Chakrabarty B, Pandey RM. Telephone based follow-up of children with Epilepsy aged 4 months to 18 years: Comparison of accuracy between a Specialty Nurse and a DM Paediatric Neurology Fellow to identify Critical Clinical Events requiring Face-to-Face evaluation, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India


42. Gupta A, Meena JP, Seth R. Combination Antifungals as an Effective Means of Salvage in Paediatric Leukemia Patients with Invasive Fungal Infections, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan


49. Jain V, Kumar A, Jana M, Kalaivani M. Association of single nucleotide polymorphisms in TNFA, PNPLA3, ADIPOQ and APOC3 genes with obesity and non-alcoholic fatty liver disease in north Indian adolescents, 57th Annual meeting of European Society for Paediatric Endocrinology (ESPE), 27-29 September 2018, Athens, Greece

50. Jain V, Kumar B, Devi S, Kurpad A. Growth and body composition of term healthy Indian infants from birth to 2 years of age, 57th Annual meeting of European Society for Paediatric Endocrinology (ESPE), 27-29 September 2018, Athens, Greece

51. Jain V, Upadhyaya B, Agarwala A. Hidden hunger in overweight/obese Indian adolescents, 57th Annual meeting of European Society for Paediatric Endocrinology (ESPE), 27-29 September 2018, Athens, Greece

52. Jain V, Upadhyaya B, Kumar B. Effect of micronutrient intake on serum glucose and insulin in adolescents with overweight/obesity, International Conference of International Society of Paediatrics and Adolescent Diabetes (ISPAD), 13-14 October 2018, Hyderabad


63. Kumar A, Faruq M, Werner R, Sharma R, Jain V. Mutational analysis of SRD5A2 and AR genes in Indian children with 46 XY disorders of sex development, 57th Annual meeting of European Society for Paediatric Endocrinology (ESPE), 27-29 September 2018, Athens, Greece

64. Kumar A, Jain V. Mutations in SHOX, GHR and IGFALS Genes Among Indian Children with ‘Idiopathic Short Stature’ 57th Annual meeting of European Society for Paediatric Endocrinology (ESPE), 27-29 September 2018, Athens, Greece


75. Madaan P, Jauhari P, Chakrabarty B, Sondhi V, Sharma S, Gulati S. The clinical and electroencephalographic spectrum of ESES (Encephalopathy with status epilepticus in sleep) in Indian children, (poster presentation), American Academy of Neurology, 70th Annual Meeting, 21-27 April 2018, Los Angeles, CA, USA


81. Meena A, Chakrabarty B, Jat KR, Kabra SK, Gulati S. Pulmonary functions in children with dystrophinopathy aged 5-18 years on oral steroid therapy for at least six months, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India


84. Mood S, Kumar K, Sankar J, Lodha R. Functional outcomes in children with severe sepsis NCPCC-18, 19-20 October, Coimbatore (1st prize in oral paper)


94. Pathak N, Seth R. Silencing of Cyclin Dependent Kinase Interacting Protein (CIP)/Kinase Inhibitory Protein (KIP) Family of Genes by Hypermethylation in Paediatric Patients with Acute Lymphoblastic Leukemia, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kobe, Japan


102. Seth R, Kapoor G, Arora R, et al. The Indian Childhood Cancer Survivorship Study (C2S Stud): After Treatment Completion Registry of Childhood Cancers, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan


104. Seth R, Pathak N, Meena J, Gupta A. The After-Treatment Completion Card (ATCC): Medical Passport for a Child Cancer Survivor, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan

105. Seth R, Seth S, Meena J, Gupta A. Outcomes of Children with Leukemia Admitted with Septic Shock and Myocardial Dysfunction: Role of Intravenous, Globulins, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan
106. Sharma A, Sharma R, Jain V. Quality of life and problem areas associated with emotional distress in Indian children with type 1 diabetes, International Conference of International Society of Paediatrics and Adolescent Diabetes (ISPAD), 13-14 October 2018, Hyderabad


109. Shruthi NM, Gandhi T, Senthil SK, Jauhari P, Chakrabarty B, Singh U, Pandey RM, Gulati S, Comparing the efficacy of virtual reality therapy with modified constraint induced movement therapy with modified constraint induced movement therapy alone in improving the upper limb functions in children with hemiparetic cerebral palsy children >5-18 years, an open labeled randomized controlled parallel design trial, Annual Research Day of AIIMS, 26 March 2019, JL Auditorium, AIIMS, New Delhi


115. Vishwa CR, Seth R, Sapra S. Neurocognitive Outcomes in Survivors of Childhood Acute Lymphoblastic Leukemia, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan


118. Yadav S, Kabra M, Gupta N. Combination of NPC-SI tool and genomic testing in the diagnosis of NPC- Disease, 5th National Conference of ISIEM-2019, 18-20 January 2019, Pune


RESEARCH

Funded projects

Ongoing

1. Efficacy of a family based comprehensive Yoga Programme for weight reduction among overweight children and adolescents: An RCT, Vandana Jain, Ministry of Ayush, 3 years, 2016-2019, Rs 51.6 lakhs

2. Improving diagnosis and management of inherited rare disorders of sex development in India, Vandana Jain, ICMR, Delhi and BMBF, Germany, 2.5 years, 2017-2019, Rs 47.0 lakhs
3. Optimizing insulin and diet regimes for children with type 1 diabetes in low resource settings, Vandana Jain, Department of Health Research, 2.5 years, 2017-2020, Rs 25.0 lakhs
4. Efficacy of Metformin in reduction of hepatic fat fraction and insulin resistance in overweight adolescents with NAFLD: An RCT, Vandana Jain, ICMR, 3 years, 2018-2021, Rs 59.2 lakhs
5. APW on Quality Assurance and Quality Improvement for Birth Defects surveillance in SEAR, Madhulika Kabra, WHO, 6 months, 2019, Rs 8 lakhs
6. Non-invasive prenatal detection of de novo trisomies (Down’s syndrome) from maternal blood samples, Madhulika Kabra, Seq India, 2 years, 2018-2020, Rs 12 lakhs
7. Minimally Invasive Autopsy (MIA) in the evaluation of fetal malformations and still births—A feasibility study for the development of a standard protocol for still birth evaluation, Neerja Gupta, ICMR, 3 years, 2017-2020, Rs 29.6 lakhs
8. Deciphering Idiopathic Intellectual Disability (DIID) through Next Generation Sequencing (DIID-NGS study), Neerja Gupta, DBT, 3 years, 2018-2021, Rs 86.8 lakhs
9. Comprehensive evaluation of underlying molecular mechanisms of severe fetal and neonatal Mendelian developmental defects using whole exome sequencing, Neerja Gupta, DHR, 2 years, 2018-2020, Rs 49.3 lakhs
10. Identifying the Spectrum of Mutations in Indian Ataxia telangiectasia Patients, Rashmi Shukla, Department of Biotechnology, 5 years, 2014-2019, Rs 34.9 lakhs
11. Reducing retinopathy of prematurity by improving the quality of neonatal care in special care neonatal unit, Ashok K Deorari, Public Health Foundation of India, 3 years 5 months, 2015-2019, Rs 1.14 crores
12. Integrate quality improvement training in preterm newborn care package and pre-service education, Ashok Deorari, WHO, 11 months, 2019, Rs 33.6 lakhs
13. Developing guidelines on complementary feeding for preterm babies <34 weeks of gestation, Ramesh Agarwal, ICMR, 1 year, 2018-2019, Rs 9.5 lakhs
14. Facilitation of research on neonatal sepsis and antimicrobial resistance in LMICs: A collaboration with GARDP/DNDi, Ramesh Agarwal, Drug for Neglected Diseases initiative, Switzerland, One year 11 months, 2018-2019, Rs 45.8 lakhs
15. NeoAMR Global Neonatal Sepsis Observational Study (NeoOBS): A prospective cohort study of sepsis in hospitalized neonates, Ramesh Agarwal and M Jeeva Sankar, Jointly funded by: Global Antibiotic R&D Partnership (GARDP), Switzerland and ICMR New Delhi, 1 year 6 month, October 2018-March 2020, GARDP = Rs 1.5 lakhs and ICMR = Rs 1.02 lakhs
17. Molecular Epidemiology of Multidrug Resistant (MDR) Acinetobacter Infection in Neonates in India (Phase I), M Jeeva Sankar, I.C.M.R., New Delhi, 5 years, 2017-2022, Rs 79.8 lakhs
18. Comparative genomic analysis of Klebsiella spp. isolated from hospitalized neonates and immediate hospital environment, M Jeeva Sankar, AIIMS, New Delhi, 1 year, 2018-2019, Rs 5 lakhs
19. Universalize access and uptake of human milk for babies to improve neonatal outcomes, Kajal Jain, Scientist-II, Centre for Health Research and Innovation (CHRI), India, 1 year, 2018-2019, Rs 18.3 lakhs
21. Predicting Response to Methotrexate in Children with Juvenile Idiopathic Arthritis: Role of Biomarkers, NK Bagri, AIIMS, 2 years, 2016-ongoing, Rs 4 lakhs/annum
22. International study on atypical hemolytic uremic syndrome, Arvind Bagga, CEFIPRA (DST), 3 years, 2016-2019, Rs 12.25 lakhs
23. Paediatric Renal Biology Programme: Research on nephrotic syndrome, Arvind Bagga, DBT, 5 years, 2016-2021, Rs 8 crores
   a. Randomized, multicentric, open label, parallel group trial to compare the efficacy of 6-months versus 3-months therapy with prednisolone for the first episode of idiopathic nephrotic syndrome in children younger than 4 years, Arvind Bagga, DBT, 5 years, 2016-2021
   b. Serum and urinary microRNAs as biomarkers of renal histology and response to therapy in children with steroid resistant nephrotic syndrome, Arvind Bagga, DBT, 3 years, 2016-2019
   c. Autoantibody associated alternative complement pathway dysregulation in nephrotic syndrome secondary to membranoproliferative glomerulonephritis, Pankaj Hari, DBT, 2 years, 2017-2019
24. Proposal for ICMR Advanced Centre for Research in Paediatric Kidney Diseases, Arvind Bagga, ICMR 5 years, 2017-2022, Rs 1.6 crores
   a. Randomized open labeled controlled trial to compare the efficacy and safety of levamisole versus long term alternate days steroids made daily during infection, in patients with frequently relapsing steroid sensitive nephrotic syndrome, Arvind Bagga, ICMR, 5 years, 2017-2022
   b. Open label, randomized, controlled trial to compare the efficacy of daily therapy with low dose prednisolone vs. standard therapy on alternate days in patients with frequently relapsing or steroid dependent nephrotic syndrome, Arvind Bagga, ICMR, 5 years, 2017-2022
   c. Establishing a biorepository and registry for patients with hemolytic uremic syndrome, Professor Arvind Bagga, ICMR, 5 years, 2017-2022
   d. Whole exome sequencing in patients with non-diarrheal and non-autoimmune form of hemolytic uremic syndrome, Professor Arvind Bagga, ICMR, 5 years, 2017-2022
   e. Pilot study of genetic variations among Indian children with vesicoureteral reflux, Professor Pankaj Hari, ICMR, 5 years, 2017-2022
   f. Formulating and disseminating evidence-based guidelines for diagnosis and therapy of childhood renal illnesses, Professor Arvind Bagga, ICMR, 5 years, 2017-2022

25. Anti-complement factor H (FH) associated hemolytic uremic syndrome (HUS) in children: Immunological and genetic basis, and functional characterization of autoantibodies, Aditi Sinha, DST, 3 years, 2017-2020, Rs 68.2 lakhs
26. Multi center randomized double blind placebo controlled trial to evaluate the effects of intra erythrocyte dexamethasone sodium phosphate on neurological symptoms in patients with Ataxia Telangiectasia, Sheffali Gulati, EryDel, S.p.A, Italy, 2 years, 2018-currently ongoing, Rs 72 lakhs
27. A randomized, double blind placebo controlled six month study to evaluate the efficacy, safety and tolerability of Sarizotan in patients with Rett syndrome with respiratory symptoms, Sheffali Gulati, Neuron Pharmaceuticals, Italy, 2 years, 2017-currently ongoing, Rs 42 lakhs
28. A Phase 3, Randomised, Double blind, Placebo-controlled efficacy and safety study of Ataluren in patients with nonsense mutation Duchenne Muscular Dystrophy and Open label extension, Sheffali Gulati, PTC Therapeutics, USA, 2 years, 2019-currently ongoing, Rs 50 lakhs
29. Center of Excellence and Advanced Research on Childhood Neurodevelopmental disorders with its projects in 5 thrust areas, Sheffali Gulati, AIIMS GIA (supported by MOHFW) and IIFCL (as part of its CSR), 5 years, December 2017 currently ongoing, Rs 11.3 crores, (6.3 +5)
30. COMPASS: Communication-focused parent-mediated treatment for Autism Spectrum Disorder in South Asia trial (University of Manchester and Sangath), Sheffali Gulati, MRC, UK, 4 years, 2018-currently ongoing
32. Serum matrix metalloproteinase-9: A potential biomarker for predicting calcification and epilepsy in Neurocysticercosis; a longitudinal observational study, Biswaroop Chakrabarty, IRG, 2 years, 2016-currently ongoing, Rs 5 lakhs
33. Serum sICAM5 and MMP9/TIMP1 ratio: Potential predictors of disease activity in children with encephalopathy with electrical status in sleep (ESES) syndrome, Prashant Jauhari, AIIMS, 2 years, 2016-currently ongoing, Rs 3.1 lakhs
34. Chemo to Cure (C to C)” study of cancer survivorship, Rachna Seth, JIV DAYA foundation, 2011 onwards, Rs 1.2 crores
35. Molecular alterations in childhood Acute Lymphoblastic Leukemia (ALL): Role of Cytokine receptor-like F actor-2 (CRLF2) rearrangements and Janus Kinase (JAK) mutation, Rachna Seth, ICMR, 4 years, 2015-2019, Rs 3.8 lakhs
36. Integrated molecular biology of biological markers: Role of copy number alterations of genes in Indian Childhood B Lineage Acute Lymphoblastic Leukemia, Nivedita, Rachna Seth, UGC women Scientist Fellowship, 5 years, 2018-2022, Rs 40 lakhs
37. To determine the role of Ikzf1 gene and various IKAROS isoforms in pathogenesis of B cell acute lymphoblastic leukemia (BALL) in Indian pediatric population, Kakali Purkayastha, Rachna Seth, DBT under BIOCARE grant, 3 years, 2018-2020, Rs 60 lakhs
38. A collaborative, multicenter, national study for newly diagnosed patients with acute lymphoblastic leukemia (IcICle), Rachna Seth, National Cancer Grid and ICMR, 5 years, 2017-2022, Rs 30 lakhs (Funds jointly received for Paediatrics and IRCH (Dr Sameer Bakhshi))
39. Molecular evaluation of gene copy number variations and mutation profile in pediatric Acute Myeloid Leukemia (AML) patients and its association with disease prognosis, Jagdish Prasad Meena, AIIMS, 2 years, 2018-2020, Rs 4.8 lakhs/year
40. Prevalence and clinical outcome of respiratory viral infections among children with cancer and febrile neutropenia, Jagdish Prasad Meena, AIIMS, 1 year, 2017-2018, Rs 5 lakhs
41. Assessing the efficacy of rituximab added to standard chemotherapy versus standard chemotherapy alone in achieving lower minimal residual disease after induction phase of chemotherapy in CD20 positive children with Acute Lymphoblastic Leukemia, Aditya Kumar Gupta, AIIMS, 1 year, 2018-2019, Rs 3.5 lakhs
42. To develop Acute Respiratory Infection Treatment Units (ATUs) and assess their utility in improving healthcare and research in pneumonia related morbidity and mortality in India, SK Kabra, Rakesh Lodha R, INCLEN (Bill Gates Malinda Foundation), Rs 1.97 crores
43. Effect of outdoor air pollution on acute respiratory symptoms in Delhi: A multisite study, SK Kabra, Rakesh Lodha, ICMR, 1 year, 2017-2018, Rs 56.2 lakhs
44. Multiplex point-of-Care test for acute febrile illness (mPOCT), Rakesh Lodha, THSTI, 2 years, 2017-2019, Rs 32 lakhs
45. Dengue infection in India, Rakesh Lodha, NIH, 5 years, 2015-2019, Rs 99 lakhs
46. To study pharmacokinetics of second-line anti-tubercular Drugs in children, Rakesh Lodha, DHR, 2 years, 2017-2019, Rs 24.6 lakhs
47. Longitudinal big-data for prediction and precision in critical care medicine, Rakesh Lodha, DST, 2 years, 2018-2020, Rs 38 lakhs
48. Early Detection of Sepsis in Paediatric Intensive Care Units through Integration of Clinical and Big Data, Rakesh Lodha, Wellcome Trust –DBT, 6 years, 2015-2021, Rs 1.97 crores
49. To study pharmacokinetics of second-line anti-tubercular Drugs in children, Rakesh Lodha, DHR, 2 years, 2017-2019, Rs 24.6 lakhs
50. Efficacy and safety of vitamin D supplementation in asthmatic children who are vitamin D deficient: A randomized controlled trial (ESDAC trial), Kana Ram Jat, ICMR, 2 years, 2017-2019, Rs 34.9 lakhs
51. Detection of genetic mutations profile of Primary Ciliary Dyskinesia and correlation of mutation with clinical phenotype in Indian Children, Kana Ram Jat, DBT, New Delhi, 3 years, 2018-2021, Rs 30.86 lakhs
52. Center for advance research in Paediatric Respiratory Diseases, ICMR, 2018-2023, SK Kabra, Rakesh Lodha, Kanaram Jat, Jhuma Sankar, Funds Rs 6.2 crores Projects as follows
   a. Capacity building for management of chronic respiratory disorders in children
   b. Cystic Fibrosis in India: Prevalence, Mutation Profile and Development of Registry
   c. Interstitial lung disease in children
   d. Point of care testing for Primary Ciliary Dyskinesia in Children
   e. Respiratory Complications of Primary and Acquired Immunodeficiency Disorders in children

Completed

1. Balanced solution versus normal saline in initial fluid resuscitation in septic shock, Jhuma Sankar, DST, 3 years, 2017-2019, Rs 71 lakhs
2. Blood heavy metal levels and quantitative EEG correlates in children with autism, Sheffali Gulati, ICMR, 3.5 years, 2014-2018, Rs 49.04 lakhs
3. Evaluating the efficacy and safety of an innovative and affordable Goat Lung Surfactant for the treatment of respiratory distress syndrome in preterm neonates: A multi-site randomized clinical trial, Ramesh Agarwal, Wellcome Trust, 3 year 5 months, 2015-2019, Rs 1.1 crores
4. Honey versus standard treatment for bed sores in critically ill children, Jhuma Sankar, Paediatric Critical care Research Grant-HARD grant (1 year), Completed in December 2018, Rs 6.5 lakhs
5. Hypoxia adaptation and pregnancy outcome study, Vinod Paul and Vandana Jain, Wellcome Trust, 1.5 years, 2016-2018, Rs 43 lakhs
6. Signs of circulatory impairment in children, Jhuma Sankar, DST (3 years), 2019-2021, Rs 34 lakhs
7. To establish a regional learning platform for capacity building, dissemination and translation of point of care quality improvement approach in South-East-Asia, Ashok K Deorari, WHO, 1 year, January 2018-February 2019, Rs 31.85 lakhs
8. Validation and Indian Adaptation of the adapted ASQ-3 (Ages and Stages Questionnaire) as a developmental screening tool as compared to reference standard tool (DASII—Developmental Assessment Scale for Indian Infants) in at risk Indian children 2-24 months of age, Sheffali Gulati, ICMR, 2 years, 2017-2019, Rs 19.01 lakhs
Departmental projects

Ongoing

1. A cross-sectional observation study to assess the prevalence of renal dysfunction in children with solitary functioning kidney
2. A randomized sham controlled clinical trial of targeted low frequency repetitive Transcranial Magnetic Stimulation (rTMS) in childhood and adolescent focal onset refractory epilepsy
3. Association of IKZF-1 gene alterations and Cytokine Receptor Like Factor 2 (CRLF2) expression with prognostic markers at presentation and response to induction chemotherapy in Indian children with Acute Lymphoblastic Leukemia (ALL)
4. Body composition in preterm newborns at birth and in early infancy by air displacement plethysmography, A longitudinal study
5. Body composition of healthy term neonates at birth by air displacement plethysmography
6. Cardio-oncology: Role of biomarkers and strain imaging echocardiography in preventing cardiotoxicity
7. Cardiovascular outcomes in renal transplant recipients
8. Changes in muscle thickness and muscle echogenicity in critically ill children during their initial 7 days’ stay in PICU, An observational study
9. Childhood and Adolescent Sleep Awareness in Caregivers and Health care Professionals, A Community and Hospital Based Survey
10. Clinical and laboratory profile of inflammatory bowel disease in children in India: A multicentric study
12. Cloning and expression of Chikungunya Virus genes and evaluation of their role in chikungunya pathogenesis in children and adults (PhD Thesis)
13. Comparing therapeutic endpoints of septic shock resuscitation to guide fluid therapy
14. Comparison of Efficacy of Low Glycemic Index Therapy and Modified Atkins Diet among Children with Drug Resistant Epilepsy, A randomized non-inferiority trial
15. Comparison of efficacy of sensory integration therapy as an adjunct to standard care with standard care alone in improving gross motor skills in cerebral palsy children with sensory processing abnormalities, A single blinded randomized parallel design study
16. Comparison of performance of two point-of-care glucose meters in detection of hypoglycemia among at risk neonates
17. Comparison of three different methods of orotracheal tube length estimation in neonates, A postmortem study
18. Cystic kidney disease in infants and children: Clinical spectrum and ultrasound findings
19. Decreasing time to recognition and administration of first fluid bolus and first dose of antibiotics in children with septic shock
20. Developing a counselling package for mother and the families for care of low birth babies between 1800 g to 2499 g
21. Developing a structured remedial intervention programme for Indian school going children having Specific learning disorder with dyslexia, A longitudinal intervention study
22. Development and validation of a questionnaire based tool to identify sleep problems in school going children and adolescents aged 3-18 years against overnight polysomnography (ongoing)
23. Devising a formula for the insertion length of Peripherally Inserted Central Catheter (PICC) in Indian newborns, A prospective observational study
24. Dexmedetomidine vs Midazolam for sedation in critically ill ventilated children
25. Diagnostic accuracy of predictive algorithms in detecting retinopathy of prematurity
26. Diagnostic and treatment gap in Neurodevelopmental Disorders in children aged 1 month to 18 years, An observational study
27. DTI, fMRI and qEEG correlates of cognition and behaviour in children and adolescents with well controlled nonlesional epilepsy, An observational study
28. Effect of visual inspection based abdominal monitoring vs routine prefeed abdominal girth monitoring on time to reach full enteral feeds in preterm neonates (≤32 weeks’ gestation), A randomized controlled trial
29. Efficacy and safety of intravenous rituximab versus tacrolimus for frequently relapsing nephrotic syndrome
30. Efficacy and safety of olanzapine as an add on therapy in children receiving highly emetogenic chemotherapy, A randomized double blind placebo controlled study

31. Efficacy of Pulse Dexamethasone in addition to standard therapy versus standard therapy alone in children with Juvenile Idiopathic Arthritis, A double blind randomized controlled trial

32. Efficacy of two different chlorhexidine gluconate preparations for skin antisepsis in neonates, A non inferiority randomized controlled trial

33. Efficacy of Vitamin D supplementation for improving glycemic control in Type 1 diabetes, An RCT

34. Epidemiology and outcomes of children with shock (STS project 2019)

35. Etiological evaluation of Nonimmune Hydrops Fetalis (NIHF)

36. Evaluating the efficacy of aquaresis effect of tolvaptan in children with nephrotic syndrome and edema non responsive to iv frusemide therapy

37. Evaluation of metabolic abnormalities in children with nephrolithiasis

38. Evaluation of molecular alterations at 11p15.5 locus in Isolated Hemihyperplasia

39. Evaluation of physiological responses during kangaroo care by fathers and mothers in stable preterm neonates, A cross sectional study

40. Evaluation of repetitive Transcranial Magnetic Stimulation as an adjunct to modified Constraint Induced Movement Therapy in improving Upper Limb Function in Children with Hemiparetic Cerebral Palsy aged 5-18 years, A RCT

41. Evaluation of trisaccharide BM-652 as a potential biomarker in serum of ERT naive patients with MPS I and MPS II aged 6 months-18 years

42. Feasibility and efficacy of sustained low efficiency dialysis in critically ill children with severe acute kidney injury

43. Feasibility, effectiveness and sustainability of the implementation of facility-team-driven approach for improving the quality of care in Special Newborn Care Unit in South India

44. Fentanyl versus ketamine for pain management during laser treatment for retinopathy of prematurity (ROP), An interventional case series study

45. Fortification of EBM with preterm formula vs. human milk fortifier in preterm (28-34 weeks) VLBW Neonates, A randomized non inferiority trial

46. Fortification of expressed breast milk with preterm formula powder vs HMF in preterm very low birthweight neonates, A randomized non inferiority trial

47. Functional characterization of anti-factor H autoantibodies in patients with hemolytic uremic syndrome

48. Functional outcomes in children with septic shock

49. Incidence and determinants of outcome of neutropenic enterocolitis in paediatric cancer patients

50. Incidence and risk factors of preterm brain injury in very low birth weight neonates <1500 g birth weight and/or gestation <32 weeks, A prospective cohort study

51. Intermittent versus continuous monitoring of ScvO2 in septic shock

52. Ketamine Mouthwash versus Placebo in the Treatment of Severe Oral Mucositis Pain in Children with Cancer, A randomized double-blind Placebo-controlled trial

53. Macronutrient composition of very preterm (<32 weeks) breast milk, A prospective observational study

54. Metabolic syndrome in children with persistent asthma

55. Minimally invasive surfactant administration in preterm neonates, A prospective single arm interventional feasibility study

56. Molecular and Immunological Characterization of Chikungunya Viruses Associated with acute-febrile illness in India

57. Neutropenic Diet vs Standard Indian diet in reducing the incidence of febrile neutropenia following chemotherapy in pediatric oncology patients, A Randomized controlled Trial

58. Norepinephrine plus dobutamine versus epinephrine in septic shock

59. Plasma PCSK9 in children with steroid resistant nephrotic syndrome

60. Polyneuropathy in critically ill mechanically ventilated children

61. Prevalence and risk factors for Gastroesophageal reflux in mechanically ventilated children


63. Prevalence of low bone mineral density in HIV infected children

64. Prevalence of microdeletions in NF1 gene and evaluation of phenotypic spectrum of patients with Neurofibromatosis Type 1
65. Prevalence of Non Alcoholic Fatty Liver Disease (NAFLD) in Children with Down Syndrome
66. Pulmonary dysfunction in childhood Hodgkin lymphoma survivors
67. Pulmonary dysfunction in Hodgkin Lymphoma survivors
68. Quality Improvement initiative to promote potentially best practices in the first week of life in preterm neonates <32 weeks gestation: Focus on prevention of Bronchopulmonary Dysplasia
69. Role if Intestinal Fatty Acid binding protein and Citrulline in the diagnosis of Celiac disease and evaluation of Compliance on follow up
70. Sepsis -3 vs Goldstein definition in diagnosis of septic shock
71. Simulation based education vs conventional education in improving practices and knowledge of health care professionals for stabilization of a preterm neonate in delivery room, A randomized trial
72. Spectrum of Neurological Manifestations in Indian Patients with Gaucher Disease, A prospective study
73. Study of hematocrit profile in term and preterm at risk infants during the initial 48 hours of life, A prospective cohort study
74. Telephone based follow-up of children with epilepsy aged 4 months to 18 years: Comparison of accuracy between a specialty nurse and a DM Paediatric Neurology resident to identify critical clinical events requiring face to face evaluation
75. To estimate the prevalence of sensory processing abnormality in children with Cerebral palsy using the sensory profile 2
76. To generate ultrasound muscle-based parameters for evaluation of hypotonia in children aged 1 month to 18 years
77. To study the effect of highly active antiretroviral therapy on B cell sub-populations in HIV infected children
78. To study the prevalence of dosage anomalies at 22q11 locus and Evaluate the phenotypic spectrum of facio-auriculo-ocular spectrum disorders
79. Utility of Nasal Nitric Oxide Measurement in the diagnosis of Allergic Rhinitis in children
80. Utility of USG guided indices for predicting fluid responsiveness in children

**Departmental projects**

**Completed**

1. A comparative study to assess the knowledge and practice of mothers of children in the age group of 6 months to 2 years in urban and rural areas regarding complementary feeding with a view to develop a knowledge booklet
2. A proof of concept study of 3 days intravenous ceftriaxone followed by switch to oral cefixime for uncomplicated spontaneous bacterial peritonitis in children with nephrotic syndrome
3. Association of Fluid Overload with Outcomes in Critically Ill Mechanically Ventilated Children
4. Characterization of bone marrow involvement in pediatric Hodgkin lymphoma using 18F-FDG PET-CT and its comparison with blind bone marrow biopsy
5. Comparing the efficacy of virtual reality therapy with modified constraint induced movement therapy versus modified constraint induced movement therapy alone, for children with hemiparetic cerebral palsy aged ≥5-18 years, An open labelled, randomized controlled, parallel design, superiority trial
6. Comparison between efficacy of daily and intermittent low glycaemic index therapy among children with drug resistant epilepsy aged 1-15 years, A randomized controlled non-inferiority trial
7. Comparison of efficacy between suggestion method during video EEG recording by verbal suggestion in isolation and verbal suggestion along with cotton swab or tuning fork for inducing the paroxysmal event in children aged 5-18 years with suspected psychogenic nonepileptic events
8. Comparison of serum 25 Hydroxy vitamin D and trace elements levels between 6 and 18 years old ADHD and typically developing children and adolescents and their correlation with symptom severity and comorbidities: Analytical cross sectional study
9. Correlation of cord blood and breast milk IGF-1 with neonatal adiposity among infants born to mothers with gestational diabetes mellitus at term gestation, A prospective cohort study
11. Developing a tool to identify the early signs of Autism Spectrum Disorder in children 1-18 months of age, An observational study
12. Efficacy of three different skin antiseptic preparations in neonates admitted in NICU, A randomized non inferiority trial
13. Evaluation of Osteopontin as a biomarker and its relationship with phenotypic severity score in Enzyme naive children with Gaucher disease
14. Genetic basis of congenital nephrotic syndrome and correlation with clinical phenotype
15. Health related quality of life of children (aged 3-12 years) with autism spectrum disorder (fulfilling DSM-5 criteria)
16. Inter-observer agreement between primary care physician and paediatric neurologist in classifying epilepsy among children aged one month to 18 years using AIIMS modified INDT EPI Tool according to ILAE 2017 classification
17. Long-term outcomes of patients with anti-complement factor H associated atypical hemolytic uremic syndrome
18. Prevalence of sleep disordered breathing in Asthmatic children
19. Sepsis-3 vs Goldstein definition in diagnosis of septic shock
20. Serum soluble urokinase-type plasminogen activator receptor and urinary CD80 in predicting the course of disease and histology in patients with nephrotic syndrome
21. Surveillance of microbial contamination of mobile phones, reported behaviour and hand hygiene practices of health care personnel related to mobile phone use, A prospective observational study
22. Survey of pain sources, intensity and management strategies in hospitalized children in a tertiary care hospital in India
23. Telephone based follow-up of children with epilepsy aged 4 months to 18 years: Comparison of accuracy between a specialty nurse and a DM Paediatric Neurology resident to identify critical clinical events requiring face to face evaluation
24. To study the Infant Pulmonary Function Tests (IPFT) in children with airway anomalies and to correlate these with bronchoscopy finding
25. Urinary metabolomic profile of healthy term neonates at postnatal age 24-72 hours
26. Validation of END-IT score in children aged 1 month to 14 years with convulsive status epilepticus

**Collaborative projects**

**Ongoing**

1. Correlation of fetal soft tissue thickness measured sonographically with neonatal body composition, Obstetrics and Gynecology
2. Enhanced, personalized versus routine antenatal care in the amelioration of anemia in pregnancy in rural LMIC settings- the Comprehensive Anemia Programme and Personalised Therapies (CAPPT) project, Obstetrics and Gynecology
3. Role of F-DOPA PET-CT in pediatric and adult patients with hyperinsulinemic hypoglycemia, Nuclear Medicine
4. ICMR Young Diabetes registry, Endocrinology and Metabolism
5. Immunohistochemistry and Genetic sequencing in children with Progressive Familial Intrahepatic Cholestasis, Pathology
6. Multicentric Indicleft Task Force Project, CDER AIIMS, New Delhi
7. Prenatal screening initiative by dried blood spots: Role for triaging and resource utilization, Maulana Azad Medical College, New Delhi
8. Pattern of CYP3AS and MDR-1 single nucleotide polymorphism& its impact on individualization of Tacrolimus based immunosuppression in living Renal Allograft recipient, Department of Nephrology, AIIMS, New Delhi
9. A comparative study to evaluate the efficacy of Ibedone in comparision with placebo in Leber’s Hereditary optic Neuropathy patients, A pilot study”, RP Centre, AIIMS, New Delhi
10. Development of a high throughput genome editing pipeline based on based on an orthologous CRISPER/Cas9 system (FnCas9) and its application in the generation of 3D organoides for disease modelling and correction, IGIB, Stem Cell Facility, AIIMS, New Delhi
12. International study on atypical hemolytic uremic syndrome, Laboratoire d’Immunologie, Hôpital Européen Georges Pompidou, INSERM UMR S 872, Paris, France
13. Paediatric Renal Biology Programme: Research on nephrotic syndrome, Institute of Genomics and Integrative Biology, New Delhi, Translational Health Sciences and Technology Institute, Government of India, Faridabad,
14. Whole exome sequencing in patients with non-diarrheal and non-autoimmune form of hemolytic uremic syndrome, Institute of Genomics and Integrative Biology, New Delhi
15. Pilot study of genetic variations among Indian children with vesicoureteral reflux, Institute of Genomics and Integrative Biology, New Delhi
17. Impact of advanced paternal age and poor lifestyle on sperm epigenome: Possible etiology in Autism Spectrum Disorder, Anatomy
18. The pathways to cure for Autism Spectrum Disorders, Public Health Foundation of India (PHFI)
19. Understanding and improving the nonverbal biomarkers of object perception in autistic subjects, IIT Delhi
20. Imaging of Infantile Brachial Plexopathy, Radiology
21. Cortical sources and connectivity in Autism spectrum disorder: A QEEG study, Physiology
22. A phase 2 double arm randomized trial comparing conventional radiotherapy alone vs hypofractionated radiotherapy with concurrent and adjuvant temozolomide in patients with diffuse intrinsic pontine glioma, Radiotherapy
23. Efficacy, safety and tolerability of Modified Atkins Diet in Adolescents and Adults with Drug Resistance Epilepsy: A Randomized Controlled Trial, Neurology
24. Comparative proteomic profiling of PBMC isolated from FRDA patients and that in presence of different frataxin up-regulating therapeutics, Biochemistry
25. Use of ‘My Whole Child; Child Health and Development Interactive System’, a web based platform for holistic evaluation and management of Indian children and adolescents upto 18 years of age; a tertiary centre pilot study, Chasis, USA
27. The pattern of visual impairment in spectrum of hypoxic ischemic encephalopathy, RP Centre for Ophthalmic Sciences
28. A Multi-center, Open labelled Trial to evaluate the sensitivity and specificity of DSM IV TR and DSM 5 in diagnosis of Autism Spectrum Disorder, 5 sites across India
30. Comparison of symptom severity as per AIIMS Modified INDT-ADHD tool with Conner’s Parent reported scale in 6-18 years old children and adolescents with ADHD
31. Cortical sources and connectivity in Autism spectrum disorder, A QEEG study
32. PET CT in high grade lymphoma in children, Nuclear medicine
33. Identification and in vitro analysis of novel tyrosine kinase alterations in Indian Ph-like ALL patients, Lab Oncology
34. Molecular biology of cytogenetically normal acute myeloid leukemia, Lab Oncology
35. Identification of novel driving tyrosine kinases in Indian pediatric Ph-like ALL, Lab Oncology
36. Molecular determinants of prednisolone sensitivity in pediatric acute lymphoblastic leukemia, Lab Oncology
37. Molecular biology of immature T-acute lymphoblastic leukemia, Lab Oncology
38. Surveillance of Dental Hygiene In Child Cancer Patients, Center for Dental Education and Research
39. A prospective study to evaluate WT1 gene expression as a biomarker of disease progression in de novo cases of AML, Lab Oncology
40. Immunological characterization of HIV 1 infection in children in India, Biochemistry
41. A study on alternate antimicrobial agents against typhoidal salmonellae, Microbiology
42. Immunopathogenesis of pediatric HIV 1 infection and generation of human monoclonal antibodies against the viral envelop, Biochemistry
43. To characterize humoral and cell mediated immune memory against dengue/ chikungunya viruses in anonymous healthy blood bank donors and to assess whether the cell mediated immune memory strictly co-exists with humoral immune memory against dengue/ chikungunya viruses, ICGEB, New Delhi
44. Generation and characterization of human recombinant single chain variant fragments (scFv) against envelope glycoprotein of subtype-C HIV-1 from pediatric patients, Biochemistry

45. Utility of Contrast Enhanced Ultrasound (CEUS) and whole body MRI in response assessment in Juvenile Idiopathic arthritis, Radiodiagnosis

46. Prognostic and surgical outcomes of cataract surgery in paediatric uveitis, Ophthalmology

Collaborative projects

Completed

1. Child Sexual Abuse: Development of a Multidimensional Scale and Psychological Trauma Intervention, Department of Psychiatry

2. To study the effect of parental origin of X chromosome on clinical features and biochemical profile in patients with Turner syndrome, Department of Endocrinology and Metabolism

3. Multi Centric Collaborative Study of The Clinical Biochemical and Molecular Characterization of Lysosomal Storage Disorders in India: The Research Initiative for Research in Lysosomal Storage Disorders, Multicentric—SGPGI, Lucknow, CDFD, Hyderabad, MAMC, New Delhi, SGRH, New Delhi, FRIGE, Ahmedabad, Kasturba Medical College, Manipal

4. Improving the quality of childbirth and neonatal care in Primary Health Centres in two districts in Haryana, India, Department of Paediatrics, Government Medical College, Chandigarh - 32 and SWACH, Haryana

5. Health related quality of life in children with epilepsy; child and parental perceptions, knowledge and attitudes, College of Nursing, AIIMS, New Delhi

6. Effect of weighted compression Vest on hyperactivity of children aged 6-9 years diagnosed autism by DSM-5, IIT, Delhi

7. Comparative analysis of predominant gut micro flora and their metabolites in autistic versus normal children for probiotic interventions, Department of Dairy Microbiology, National Dairy Research Institute Karnal

8. To study the prevalence of cardiac channelopathies in children aged 5-18 years undergoing treatment for epilepsy, Department of Cardiology, AIIMS, New Delhi

9. Imaging of Infantile Brachial Plexopathy

10. A study to assess the prevalence and knowledge about oral health problems among children undergoing chemotherapy and their caregivers with a view to develop an information booklet at AIIMS, New Delhi, Center for Dental Education and Research College of Nursing

11. A study to evaluate the effect of video based education on knowledge of caregivers of children with acute leukemia regarding prevention of infection during chemotherapy at AIIMS, New Delhi, College of Nursing

12. Real time PCR assay for the diagnosis of invasive fungal infections, Department of Microbiology

PUBLICATIONS


PATIENT CARE

<table>
<thead>
<tr>
<th>Name of Service</th>
<th>New Cases</th>
<th>Old Cases</th>
<th>Total Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paediatric General OPD</td>
<td>32,562</td>
<td>68,522</td>
<td>1,01,084</td>
</tr>
<tr>
<td>Paediatric Neurology Clinic (PNC)</td>
<td>1,641</td>
<td>2,003</td>
<td>3,644</td>
</tr>
<tr>
<td>Paediatric Neuromuscular disease</td>
<td>551</td>
<td>815</td>
<td>1,366</td>
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<tr>
<td>Paediatric Gastroenterology Hepatology and Nutrition (PGC)</td>
<td>514</td>
<td>1,169</td>
<td>1,683</td>
</tr>
<tr>
<td>Paediatric Well Baby Clinic</td>
<td>671</td>
<td></td>
<td>671</td>
</tr>
<tr>
<td>Paediatric High Risk Neonatology Clinic (HRC)</td>
<td>335</td>
<td>1,218</td>
<td>1,553</td>
</tr>
<tr>
<td>Paediatric Renal Nephrology Clinic (RMC)</td>
<td>835</td>
<td>1,968</td>
<td>2,803</td>
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<tr>
<td>Paediatric Chest Clinic (PCC)</td>
<td>626</td>
<td>6,500</td>
<td>7,126</td>
</tr>
<tr>
<td>Paediatric Tuberculosis Clinic</td>
<td>275</td>
<td>2,003</td>
<td>2,278</td>
</tr>
<tr>
<td>Paediatric Rheumatology Clinic (PRC)</td>
<td>400</td>
<td>2,236</td>
<td>2,636</td>
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<tr>
<td>Paediatric Genetics and Birth Defects Clinic</td>
<td>795</td>
<td>889</td>
<td>1,684</td>
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<tr>
<td>Paediatric Genetic Antenatal cases</td>
<td>2,116</td>
<td>150</td>
<td>2,266</td>
</tr>
<tr>
<td>Paediatric Oncology Clinic</td>
<td>500</td>
<td>1,087</td>
<td>1,587</td>
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</tbody>
</table>
In addition, Cystic fibrosis and Paediatric HIV services were provided in Paediatric Chest Clinic. Kangaroo Mother Care units run along with follow-up services of normal and at-risk neonates.

**Physiotherapy Services** were provided to the patients in Neurology Clinic, Myopathy Clinic Genetics Clinics, High risk, Endo, Development Clinic, Paediatric Chest Clinic, Rheumatology Clinic and OPD services.

**Total physiotherapy sessions provided during 2018-2019: 2,530**

**INDOOR SERVICES**

- Indoor services include admission facilities in general wards, day care facility, neonatal units (NICUs A and B), Kangaroo Mother Care Unit and Paediatric Intensive Care Facility
- The department operationalized an 8-bedded **High Dependency Unit** in children ward to cater to child patients with life-support and other special needs. A special training programme for the nurses of the HDU was held
- Children requiring short procedures or interventions are admitted for a day in the Day Care Unit situated in the C5 ward

**Total indoor admissions**

<table>
<thead>
<tr>
<th>Long admissions in Paediatric wards</th>
<th>Admission in day care facility</th>
<th>Patient admitted in PICU</th>
<th>Admissions in NICU A + B</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,055</td>
<td>15,358</td>
<td>245</td>
<td>631 + 179 = 810</td>
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</table>

**SPECIALIZED INVESTIGATIONS**

**ENDOCRINOLOGY**

<table>
<thead>
<tr>
<th>Human growth hormone</th>
<th>Serum cortisol</th>
<th>348</th>
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</thead>
<tbody>
<tr>
<td>Serum insulin</td>
<td>VitD</td>
<td>189</td>
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<tr>
<td>ATPo</td>
<td>PTH</td>
<td>50</td>
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<tr>
<td>Thyroid function tests</td>
<td></td>
<td>242</td>
</tr>
</tbody>
</table>

**GENETICS**

**Cytogenetics Laboratory**

<table>
<thead>
<tr>
<th>Peripheral blood and Cord blood cultures</th>
<th>Amniotic fluid cultures</th>
<th>100</th>
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</thead>
<tbody>
<tr>
<td>Chorionic villi cultures</td>
<td>QF-PCR</td>
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</table>

**Biochemical Genetic Test details:**

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<th>S.No.</th>
<th>Test</th>
<th>Disorder</th>
<th>No. of Pts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Triple Marker</td>
<td>Antenatal screening</td>
<td>253</td>
</tr>
<tr>
<td>2</td>
<td>Dual Marker test</td>
<td>Antenatal screening</td>
<td>469</td>
</tr>
<tr>
<td>3</td>
<td>TLC for disorders of amino acid metabolism</td>
<td>Metabolic screening</td>
<td>99</td>
</tr>
<tr>
<td>4</td>
<td>HPLC</td>
<td>Amino acid metabolism</td>
<td>46</td>
</tr>
<tr>
<td>5</td>
<td>Disorder of Mucopolysaccharidosis (Urine Spot test)</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>6</td>
<td>GAGS</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>7</td>
<td>Homocystein urea test</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>8</td>
<td>Reducing Substances in urine</td>
<td></td>
<td>53</td>
</tr>
<tr>
<td>9</td>
<td>DNPH</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>10</td>
<td>FeCl3</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>11</td>
<td>Sulphite Oxidase</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>12</td>
<td>Blood Ammonia</td>
<td></td>
<td>1,761</td>
</tr>
<tr>
<td>13</td>
<td>Oligosaccharide</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>
**Enzyme Assays for Inborn Error of Metabolism:**

Total no. Patients for Enzyme Assays: 705

<table>
<thead>
<tr>
<th>S. No</th>
<th>Enzyme Assay</th>
<th>Disorder</th>
<th>No. of Pts.</th>
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<tbody>
<tr>
<td>1</td>
<td>Arylsulfate A</td>
<td>Met Metachromatic-leukodystrophy</td>
<td>55</td>
</tr>
<tr>
<td>2</td>
<td>β – Glucosidase</td>
<td>Gaucher Disease</td>
<td>69</td>
</tr>
<tr>
<td>3</td>
<td>MPS-II</td>
<td>Hunter</td>
<td>39</td>
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<tr>
<td>4</td>
<td>Galactose-6-Sulphatase</td>
<td>Morquio A (MPS-IVA)</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>Gangliosidosis</td>
<td>GM1 Gangliosidosis and Morquio B (MPS-IV B)</td>
<td>33 and 5</td>
</tr>
<tr>
<td>6</td>
<td>Arylsulphatase-B</td>
<td>MPS-VI</td>
<td>54</td>
</tr>
<tr>
<td>7</td>
<td>β - Glucuronidase</td>
<td>Maroteaux-Lamy Syndrome (MPS VII)</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Biotinidase</td>
<td></td>
<td>85</td>
</tr>
<tr>
<td>9</td>
<td>GALT</td>
<td>Galactosemia</td>
<td>56</td>
</tr>
<tr>
<td>10</td>
<td>Hexosaminidase A</td>
<td>Tay-Sachs</td>
<td>37</td>
</tr>
<tr>
<td>11</td>
<td>Plasma Hex-A</td>
<td>Mucolipidosis</td>
<td>10</td>
</tr>
<tr>
<td>12</td>
<td>Plasma – ASA</td>
<td>Mucolipidosis</td>
<td>10</td>
</tr>
<tr>
<td>13</td>
<td>Chitotriosidase (Plasma)</td>
<td></td>
<td>105</td>
</tr>
<tr>
<td>14</td>
<td>β-Galactocerebrosidase (Krabbes)</td>
<td>Krabbes</td>
<td>34</td>
</tr>
<tr>
<td>15</td>
<td>Palmitoyl-protein-thioesterase (INCL)</td>
<td>INCL-1</td>
<td>28</td>
</tr>
<tr>
<td>16</td>
<td>Tripeptidyl-peptidase-I</td>
<td>NCL-2</td>
<td>6</td>
</tr>
<tr>
<td>17</td>
<td>Sphingomyelinase</td>
<td>Neimenn pick disease</td>
<td>59</td>
</tr>
<tr>
<td>18</td>
<td>α- Glucosidase</td>
<td>Pompe</td>
<td>23</td>
</tr>
<tr>
<td>19</td>
<td>α- Galactosidase</td>
<td>Fabry</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>α-N-Acetylglucosaminidase</td>
<td>Sanfilippo B (MPS III B)</td>
<td>11</td>
</tr>
<tr>
<td>20</td>
<td>Acetyl-CoA: α-Glucosaminide N-Acetyltransferase</td>
<td>Sanfilippo C (MPS III C)</td>
<td>6</td>
</tr>
<tr>
<td>21</td>
<td>MPS-I</td>
<td>HURLER</td>
<td>39</td>
</tr>
</tbody>
</table>

**Total CVS PND**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CVS</td>
<td>Non-immune Hydrops</td>
</tr>
<tr>
<td>2</td>
<td>CVS</td>
<td>ASA</td>
</tr>
<tr>
<td>3</td>
<td>CVS</td>
<td>GM1</td>
</tr>
<tr>
<td>4</td>
<td>CVS</td>
<td>MPS-I</td>
</tr>
<tr>
<td>5</td>
<td>CVS</td>
<td>Gaucher</td>
</tr>
</tbody>
</table>

**Molecular Test details:**

**Routine tests carried out:**

1. Beta Thalassemia (β Thal) mutation analysis: 142 families
   Prenatal diagnosis for β Thal offered to: 55 families
2. Spinal Muscular Atrophy (SMA) mutation analysis: 140 cases
   Prenatal diagnosis for SMA offered to: 21 families
3. Duchene Muscular Dystrophy (DMD) mutation analysis: 480 families
   Prenatal diagnosis for DMD offered to: 23 families
4. Hemophilia A Linkage analysis: 2 families
   Prenatal diagnosis for Hemophilia A offered to: Nil
5. Fragile X screening carried out: 373 families
   Prenatal diagnosis for Fragile X offered to: Nil
6. Cystic fibrosis molecular analysis: 63 cases
   Prenatal diagnosis for Cystic fibrosis offered to: 7 families
7. Achondroplasia mutation analysis: 13 cases  
    Prenatal diagnosis for Achondroplasia offered to: 1 family
8. Non-syndromic hearing loss (Connexin 26) screening: 5 cases  
    Prenatal diagnosis for Connexin 26 offered to: Nil
9. Sex Chromatin related abnormalities: 33 cases

Tests carried out on Research basis
1. Megalencephalic Leukoencephalopathy (MLC) mutation analysis carried out in - 3 cases
2. Prenatal diagnosis for Tuberous Sclerosis (TSC) offered to - 1 family
3. Caffey disease - 5 cases
4. Diastrophic dysplasia -13 cases
5. Apert syndrome - 6 cases
6. Gaucher syndrome - 3 cases
7. Prenatal diagnosis of Gaucher syndrome - 2
8. Prenatal diagnosis of Glycogen Storage disorder - 1
9. Prenatal diagnosis of Rett syndrome - 1
10. Prenatal diagnosis of Neuronal Ceroid Lipofuscinosis (NCL) - 1
11. Prenatal diagnosis of SEMD JL type (B3GALT6) - 1

Gastroenterology

<table>
<thead>
<tr>
<th>Diagnostic Gastroscopy</th>
<th>1,170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endoscopic Variceal ligation and Sclerotherapy</td>
<td>500</td>
</tr>
<tr>
<td>Endoscopic Glue injection</td>
<td>12</td>
</tr>
<tr>
<td>Endoscopic Hemoclip application</td>
<td>12</td>
</tr>
<tr>
<td>Foreign Body removal</td>
<td>20</td>
</tr>
<tr>
<td>Percutaneous Endoscopic Gastrostomy tube</td>
<td>5</td>
</tr>
<tr>
<td>Colonoscopy (diagnostic and therapeutic)</td>
<td>150</td>
</tr>
<tr>
<td>Liver Biopsy</td>
<td>60</td>
</tr>
</tbody>
</table>

Nephrology

Nephrology clinic attendance 6,750

Special tests and procedures
- Kidney transplants in children 7
- Hemodialysis 1,476
- Acute peritoneal dialysis (including automated peritoneal dialysis) 107
- Continuous ambulatory peritoneal dialysis 99
- Plasmapheresis sessions 451
- Continuous renal replacement therapy 7
- Sustained low efficiency dialysis 44
- Temporary hemodialysis catheter placement (internal jugular, femoral) 235
- Renal biopsies 164
- Ambulatory blood pressure monitoring 113
- ELISA for antibodies to complement factor H 589
- Surface CD46 expression 48

Neonatology

1. Neonatal echocardiography 129
2. Ultrasonography (including neurosonogram) 489
3. Arterial blood gas analysis 15 to 20 samples every week
4. Therapeutic hypothermia 5
5. Exchange transfusions 14
6. Point of care glucose estimation
   a. Postnatal ward 10 to 12 per day
   b. NICU A and B 6 to 8 per day

7. Packed cell volume
   a. Postnatal ward 3 to 4 per day
   b. NICU A and B 2 to 3 per day

8. Serum Bilirubin 6 to 8 per day

9. Gram staining and slide examination 2 to 3 per day

Neurology

<table>
<thead>
<tr>
<th>OPD/Clinic</th>
<th>New</th>
<th>Old</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paediatric Neurology OPD</td>
<td>4,928</td>
<td>11,781</td>
</tr>
<tr>
<td>Neurocysticercosis Clinic</td>
<td>96</td>
<td>1,244</td>
</tr>
<tr>
<td>Child Development Clinic</td>
<td>721</td>
<td>2,765</td>
</tr>
<tr>
<td>Paediatric Neurology Clinic</td>
<td>544</td>
<td>5,163</td>
</tr>
<tr>
<td>Autism Clinic</td>
<td>445</td>
<td>2,300</td>
</tr>
<tr>
<td>Neuro Muscle Clinic</td>
<td>275</td>
<td>1,696</td>
</tr>
</tbody>
</table>

Laboratory tests/ Evaluations

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Tests</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Electroencephalography</td>
<td>2,189</td>
</tr>
<tr>
<td></td>
<td>Video EEG</td>
<td>1,183</td>
</tr>
<tr>
<td></td>
<td>Ambulatory EEG</td>
<td>129</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3,501</td>
</tr>
<tr>
<td>2.</td>
<td>Nerve conduction study</td>
<td>155</td>
</tr>
<tr>
<td></td>
<td>Electromyography</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>Sympathetic Skin Response (SSR)</td>
<td>Nil</td>
</tr>
<tr>
<td></td>
<td>Repetitive nerve stimulation study RNST</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Ambulatory EPS</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>282</td>
</tr>
<tr>
<td>3.</td>
<td>Polysomnography</td>
<td>80</td>
</tr>
<tr>
<td>4</td>
<td><strong>Psychological and Developmental Tests:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>VSMS for SQ</td>
<td>3,000</td>
</tr>
<tr>
<td></td>
<td>Development Profile 3</td>
<td>2,400</td>
</tr>
<tr>
<td></td>
<td>Childhood Behaviour Checklist</td>
<td>5,800</td>
</tr>
<tr>
<td></td>
<td>Malin’s Intelligence Scale for Indian Children</td>
<td>3,000</td>
</tr>
<tr>
<td></td>
<td>Weschlers Intelligence Scale for Children</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>House Tree Person Test</td>
<td>900</td>
</tr>
<tr>
<td></td>
<td>Developmental scale for Indian Infants</td>
<td>900</td>
</tr>
<tr>
<td></td>
<td>DSM V for ASD</td>
<td>970</td>
</tr>
<tr>
<td></td>
<td>DSM V for ADHD</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>CONNER’s Rating Scale</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td><strong>Total assessment for specific leaning disorder:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grade Level Assessment Device</td>
<td>280</td>
</tr>
<tr>
<td></td>
<td>NIMHANS battery for learning disability</td>
<td>145</td>
</tr>
<tr>
<td></td>
<td><strong>Total Patients</strong></td>
<td>9,980</td>
</tr>
<tr>
<td></td>
<td>Including ward and Emergency Patients</td>
<td>10,460</td>
</tr>
<tr>
<td>5</td>
<td><strong>Total psychological interventions</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Early stimulation therapy</td>
<td>840</td>
</tr>
<tr>
<td></td>
<td>Behavioural intervention</td>
<td>4,000</td>
</tr>
<tr>
<td></td>
<td>Psychological and personality assessment using HTP (Functional)</td>
<td>680</td>
</tr>
<tr>
<td></td>
<td>Psychological counselling for nocturnal enuresis</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Psychological counselling for Tic disorder</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Cognitive behavioural therapy</td>
<td>980</td>
</tr>
<tr>
<td></td>
<td>Patients counselled in ward</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>Patients counselled in emergency</td>
<td>46</td>
</tr>
</tbody>
</table>

| 6 | **Disability Certification** |
|   | Patients evaluated for certification | 285 |

### Procedures

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Tests</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Muscle biopsy</td>
<td>274</td>
</tr>
<tr>
<td>2.</td>
<td>Nerve biopsy</td>
<td>20</td>
</tr>
<tr>
<td>3.</td>
<td>Skin biopsy</td>
<td>88</td>
</tr>
<tr>
<td>4.</td>
<td>CSF procedures</td>
<td>452</td>
</tr>
<tr>
<td>5.</td>
<td>Blood lactate</td>
<td>228</td>
</tr>
<tr>
<td>6.</td>
<td>Neostigmine challenge test</td>
<td>6</td>
</tr>
<tr>
<td>7.</td>
<td>Fore arm ischemia test</td>
<td>4</td>
</tr>
<tr>
<td>8.</td>
<td>Hand held dynamometry</td>
<td>24</td>
</tr>
<tr>
<td>9.</td>
<td>ICP Catheter placement</td>
<td>4</td>
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</table>

### Oncology

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Test</th>
<th>Monthly</th>
<th>Yearly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PCT</td>
<td>130</td>
<td>1,600</td>
</tr>
<tr>
<td>2</td>
<td>Trop. I</td>
<td>10</td>
<td>120</td>
</tr>
<tr>
<td>3</td>
<td>Pro BNP</td>
<td>10</td>
<td>120</td>
</tr>
<tr>
<td>4</td>
<td>SGOT/PT</td>
<td>5</td>
<td>60</td>
</tr>
<tr>
<td>5</td>
<td>Uric Acid</td>
<td>8</td>
<td>84</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Procedure</th>
<th>Monthly</th>
<th>Yearly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bone marrow</td>
<td>30-35</td>
<td>360-420</td>
</tr>
<tr>
<td>2</td>
<td>CSF/ITM</td>
<td>40-45</td>
<td>480-540</td>
</tr>
<tr>
<td>3</td>
<td>Biopsy</td>
<td>20</td>
<td>240</td>
</tr>
</tbody>
</table>

### Paediatric Pulmonology

#### Special lab tests

1. High Speed Video Microscopy | 156
2. Sweat chloride estimation | 549
3. Paediatric flexible bronchoscopy | 312
4. EBUS (Endobronchial ultrasound) | 29
5. Spirometry | 1,236
6. Infant PFT | 649
7. Plethysmography | 20
8. Impulse Oscillometry (IOS) | 603
9. Fractional excretion of Nitric Oxide (FeNO) and nasal Nitric Oxide (NO) | 430
10. Total and specific IgE | 203
11. IgE against aspergillus 70
12. IgG against aspergillus 70
13. IgG against lentil 10
14. IgG against avian antigen 10
15. Exercise testing 39

Rheumatology
IACS (Intra-articular Corticosteroids) 250

Financial Assistance Generated for Poor Patients

Mr Dhaneshwar Yadav, MSSO

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rashtriya Arogya Nidhi (RAN)</td>
<td>75%</td>
<td>Rs 2,45,62,073</td>
</tr>
<tr>
<td>Delhi Arogya Nidhi (DAN)</td>
<td>0.97%</td>
<td>Rs 3,20,000</td>
</tr>
<tr>
<td>Chief Minister Relief Fund (CMRF)</td>
<td>18%</td>
<td>Rs 59,77,500</td>
</tr>
<tr>
<td>Hospital Poor Fund (HPF)</td>
<td>0.94%</td>
<td>Rs 3,10,100</td>
</tr>
<tr>
<td>Employee Health Scheme (EHS)</td>
<td>4.50%</td>
<td>Rs 14,86,000</td>
</tr>
<tr>
<td>Indian Cancer Society (ICS)</td>
<td>1.20%</td>
<td>Rs 4,00,000</td>
</tr>
<tr>
<td>Prime Minister Relief Fund (PMRF)</td>
<td>2.58%</td>
<td>Rs 8,50,000</td>
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<tr>
<td>Non Government Sources (NGS)</td>
<td>0.58%</td>
<td>Rs 1,93,600</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>Rs 3,28,49,273</strong></td>
</tr>
</tbody>
</table>

Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Number of patients benefited in approximation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and guidance given to patients</td>
<td>3,256</td>
</tr>
<tr>
<td>Counselling and psychotherapy</td>
<td>1,975</td>
</tr>
<tr>
<td>Issuing railway concessions</td>
<td>1,120</td>
</tr>
<tr>
<td>Helping in having accommodation</td>
<td>270</td>
</tr>
<tr>
<td>Exemption of charges of various investigations</td>
<td>2,400</td>
</tr>
<tr>
<td>Mobilization of financial assistance to poor patient</td>
<td>700</td>
</tr>
<tr>
<td>Rehabilitation of unknown/Abandoned babies</td>
<td>1</td>
</tr>
<tr>
<td>Supervision of social work trainees</td>
<td>5</td>
</tr>
<tr>
<td>Miscellaneous needs of poor patient e.g. arranging cremation, deportation of dead bodies to their native places</td>
<td>10</td>
</tr>
</tbody>
</table>

COMMUNITY SERVICES

Oncology

- Organize patient education and awareness programme for child cancer programmes
- Organized public lecture and exhibition on Childhood cancers
- Participated as panelists and speaker for Lok Sabha TV, Doordarshan and All India Radio on the occasion of International Childhood Cancer Day
- Facilitation of financial assistance from government and non government organization to families with a child with cancer
- Preparing modules on E-Learning on Cancer Fundamentals: Initiative by Indian Cancer Society 5 nurses were trained in pediatric oncology at our center

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Endocrinology
Dr Rajni Sharma visited the Department of Paediatrics, University of Lubeck, Lubeck, Germany for a short period, 16-22 July 2018, for collaborative work on the ICMR-BMBF joint collaborative research project on “Improving diagnosis of disorders of sex development (DSD) in India”.

AIIMS 2018-19 / 365
Professor Vandana Jain guest edited Symposium on Childhood Obesity, published in Indian Journal of Paediatrics in June 2018; Coordinated the preparation of guidelines for treatment of GH deficiency for the Rare Disease Policy of Ministry of Health and Family Welfare in July 2018; Thesis conducted by her student Dr Meena H was shortlisted among the 6 best thesis for presentation at Dr KC Chaudhuri Oration and Annual Day of Indian Journal of Paediatrics in September 2018.

Neonatology


Professor Ramesh Agarwal served as Associate Editor of Seminar Fetal and Neonatal Medicine; Appointed as Member of the Working Group on AMR for World Society for Paediatric Infectious Diseases; Served as Expert of Subject Expert Committee (Vaccine) for CDSCO; Member of the Technical Expert Committee (TEC) on Maternal and Child Health—Developmental and Disease Biology, Department of Biotechnology, Government of India; Expert and Member of the Project Monitoring Committee (PMC) of the BIRAC-DBT-BMGF Grand Challenges India for reviewing the progress of research projects; Member of the Expert Consultation Group on ‘STG Development Manual’ that facilitates development of Standard Treatment Guidelines for the MoHFW, Government of India; Any awards, honours, significant events related to the whole centre/department should be listed first, These may also include awards won by students and trainees.

Dr M Jeeva Sankar was member of the Technical Expert Committee (TEC) on Maternal and Child Health—Developmental and Disease Biology, Department of Biotechnology, Government of India; Expert and Member of the Project Monitoring Committee (PMC) of the BIRAC-DBT-BMGF Grand Challenges India for reviewing the progress of research projects; Member of the ‘First Level Screening Committee’ under Grant-in-aid scheme of Department of Health Research, Ministry of Health and Family Welfare (MoHFW), Government of India for reviewing the research proposals on Child Health; Member of the Guideline Development Group (GDG) of the World Health Organization in Maternal and Perinatal Health; Member of the Centre Core Committee (C3) for the Maternal and Child Health Programme of the Knowledge Integration and Translational (KnIT) Platform, supported by BIRAC, Department of Biotechnology, Government of India; Global and national collaborator to the ‘Global Burden of Diseases, Injuries, and Risk Factors Study (GBD)’—The largest effort to measure epidemiological levels and trends of disease burden worldwide—for Health Metrics and Evaluation (IHME) at the University of Washington; Member of the Expert Consultation Group on ‘STG Development Manual’ that facilitates development of Standard Treatment Guidelines for the MoHFW, Government of India.

Dr Anu Sachdeva was member of the Expert Consultation Group on ‘STG Development Manual’ that facilitates development of Standard Treatment Guidelines for the MoHFW, Government of India; Certified as a level 3-simulation trainer after completing projects under simulation faculty development programme in 2018-2019 at Simulus 4 at AIIMS, New Delhi.

Nephrology

Professor Arvind Bagga was Editor, Asian Journal of Paediatric Nephrology; Editor, Cochrane Kidney and Transplant Group; Editorial Board: Paediatric Nephrology; Indian Journal of Paediatrics; Paediatrics and Child Health; World J Paediatrics; Member, Paediatric Review Group, Indian Council of Medical Research; Expert Kidney Disease Improving Global Outcomes (KDIGO) on ‘Glomerular diseases’; Research Advisory Committee: Department of Biotechnology, Government of India; and All India Institute of Medical Sciences.

Professor Pankaj Hari was member, Editorial Board, Asian Journal of Paediatric Nephrology, Indian Journal of Trauma and Emergency Paediatrics, Journal of Progress in Paediatric Urology, International Journal of Nephrology Urology; Member, Editorial Board, Asian Journal of Paediatric Nephrology; Member, Expert Committee of MCI on DM Paediatric Nephrology.

Dr Aditi Sinha was Joint Secretary, Indian Society of Paediatric Nephrology; Member, Editorial Board, Paediatric Nephrology; Member, Editorial Board, Asian Journal of Paediatric Nephrology; Section Editor for Nephrology, Indian Journal of Paediatrics; Reviewer for Paediatric Nephrology, Indian Paediatrics, Indian Journal of Nephrology, Indian Journal of Paediatrics; Commonwealth Medical Fellowship in Paediatric Dialysis at Royal Manchester Children’s Hospital, United Kingdom, during January-May 2018.

Neurology

Professor Sheffali Gulati received AIIMS Excellence Research Award 2018 by AIIMS, New Delhi for Clinical Research titled “Development of All India Institute of Medical Sciences-Modified International Clinical Epidemiology Network Diagnostic Instrument for Neuromotor Impairments in Children Aged 1 month to 18 years”; Dr IC Verma Excellence in Research Award 2018 by The Dr KC Chaudhuri Trust and Indian Journal of Paediatrics for research in the field of Child
Neurology in India; Operationalization of the Center of Excellence and Advanced Research for Childhood Neurodevelopmental Disorders has been started in Child Neurology Division, Department of Paediatrics, AIIMS, New Delhi; It is Funded by AIIMS Grant in aid (supported by Ministry of Health and Family Welfare) and India Infrastructure Finance Company Limited (IIFCL) As a part of its Corporate Social Responsibility (CSR); This centre of excellence has the following envisioned thrust areas: Development of a National Registry for Childhood Neurodevelopmental Disorders, National Knowledge and Training Center for Childhood Neurodevelopmental disorders, Childhood Neurodevelopmental Disorders: Advanced Diagnostics, Childhood Neurodevelopmental Disorders: Advanced Therapeutics/Rehabilitation, Establishment of Child Neurology Helpline and Teleconsultation services; Organized Neuropedicon 2018, 18th National Conference of IAP Neurology Chapter of IAP, Emerging trends and Advances in Diagnostics and Therapeutics in Paediatric Neurology from 7 to 9 September 2018 at The Leela Ambience, Gurugram, NCR; Chairperson, Board for disability assessment and certification. Department of Paediatrics AIIMS; Serving as Editorial Board Member (4); Reviewer for various International and National journals 52 (including BMJ open, Journal of inherited metabolic disease, American Journal of Medical Genetics, Journal of child Neurology; Examiner and Reviewer of various theses of MD, DCH DM and PhD. Member of many International and National Professional bodies (22); Expert for various committees: Ministry of Health and Family Welfare: Rashtriya BalSwasthyaKaryakram; formulating guidelines for treatment of rare diseases, National trust: Autism; National Coordinator of master trainers in Autism tools; early intervention, Ministry of Social Justice and empowerment: Chairperson of subcommittee on Certification of Developmental Disorders including Autism; Member of National Expert Committees: For developing guidelines for assessment and certification of specified disabilities; Disabilities requiring high support; Identification of posts in government jobs for persons with disabilities, PH reservation in MCI and Combined Medical Services, UNICEF:Global partnership on children with disability- ECD task force, NCERT: Inclusion of children with special needs in mainstream schools, ECCE, Chairperson, Expert Committee meeting on Categorization of Special Needs ChildrenChairperson of the NOC Expert Committee of CARA ( Central Adoption Resource Authority); Expert to renew Medical Examination Report of Children to be adopted by CARA, Member ICMR Task Force: IEM, AFP, children in difficult circumstances,Standard Treatment Workflow-Neurology Group, Stem Cell Research and Therapy, Member of MCIexpert group for drafting DM (Paediatric Neurology Curriculum), Teacher qualifications and Expert for Inspections of Medical colleges, UGC expert for evaluating medical universities and selection for fellowships, Scientific Advisory Committee member for Comprehensive Care Centre for various Neurodevelopmental Disorders of Sree Chitra Tirunal Institute of Medical Sciences and Technology, Trivandrum, Scientific Advisory Committee member for Kerala University of Health Sciences, Thrissur.

Dr Biswaroop Chakrabarty was part of the technical expert group for Spinal Muscular Atrophy and Duchenne Muscular Dystrophy for preparing guidelines for management of rare diseases (AIIMS, New Delhi, 18-19 July 2018); Chaired session on ‘Approach to a child with hemiparesis’ in the 3rd AOCCN Master Class in Paediatric Neurology for postgraduates, held on 3 February 2019 at New Delhi; Member of AIIMS Cultural Committee.

Oncology
Professor Rachna Seth: Chair for session on T cell Lymphoma at International CME on Lymphoma focusing on T and Hodgkin Lymphoma, March 2019; Chair for session on Relapsed NHL: Whom can we salvage with what? CME on Relapsed Leukemia/Lymphoma. Can we slay the dragon. February 2019; MD Paediatrics, external examiner, SMS Medical College, Jaipur, June 2018.

Pulmonology, Intensive Care, Tuberculosis
Dr Kana Ram Jat was reviewer for following journals and member of scientific societies; Instructor for Paediatric Advanced Life Support (PALS) and Basic Life Support (BLS); Trainer of Asthma Training Module (ATM), Respiratory Tract Infection-Group Education Module (RTI-GEM), and Paediatric Tuberculosis module; Significant event: Participated in Health Camp organized by Samudayik Vikas Samiti at Pratappgarh, Uttar Pradesh on 14 October 2018.

Dr Jhuma Sankar organised SIMULUS 4 (5 day international conference on simulation for capacity building of Institute and AIIMS like Institutes) in February 2019, as organising secretary; Organised basic and advanced life support course at AIIMS, September 2018; Organizing team of “AIIMS Paediatric Pulmonology and Intensive Care Module 2018” in May 2018 as organising secretary.

VISITING SCIENTISTS
1. Professor Ram Menon, Chair, Paediatric Endocrinology Department, CS Mott Children’s Hospital, University of Michigan, Ann Arbor, USA, visited the Department on 5 January 2019 and delivered two guest lectures on ‘Caveats in pediatric endocrine assays’ and ‘Idiopathic short stature’
2. Professor Olaf Hiort, Professor of Paediatric Endocrinology at Lubeck University, Lubeck, Germany and European Lead of the Euro-Network for rare Diseases, visited the Division of Paediatric Endocrinology, 10-18 January 2019, and delivered 3 guest lectures on ‘Hypophosphatemic rickets’, ‘Disorders of sex development’ and ‘Pseudo-hypo-parathyroidism’
3. Dr Ashok Vellodi. He is a Clinical geneticist with special interest in Lysosomal storage disorders; He served as a consultant at the Great Ormond street Children’s hospital from 1994 to 2015 and established services for lysosomal storage disorders

4. Dr Stephanie L. Bielas on Assistant Professor of Human Genetics in the Department of Human Genetics at University of Michigan Medical School

5. Dr Mohnish Suri, Senior Consultant at Nottingham Regional Clinical Genetics Service, Nottingham University Hospitals NHS Trust, City Hospital Campus, Nottingham, UK

6. Dr Chitra Prasad, Professor Genetics, Metabolism and Paediatrics, London, Canada

7. Dr Amita Sharma, Division of Paediatric Nephrology, Massachusetts General Hospital for Children, USA, visited the AIIMS on 2 January 2019 and interacted with unit Faculty, DM and MD residents, research fellows and doctoral students.

8. Professor Ben Marais, Paediatric Infectious Diseases at the Children’s Hospital at Westmead, Deputy-Director of the Marie Bashir Institute for Infectious Diseases and Biosecurity came an delivered lecture on TB Transmission and how children are affected by global epidemic on 8 May 2018

9. Professor Vitali Sintchenko Director, Centre for Infectious Diseases and Microbiology-Public Health, Westmead Hospital, NSW Health Pathology and Sydney Medical School, The University of Sydney, Sydney, Australia. Delivered talk on Genomics in TB control on 8 May 2018.

9.28. Paediatric Surgery

<table>
<thead>
<tr>
<th>Professor and Head</th>
<th>Minu Bajpai (from 1 January 2019)</th>
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<table>
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<td>Sandeep Agarwala</td>
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<td>M Srinivas (on deputation)</td>
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<td>Shilpa Sharma (JPNATC)</td>
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HIGHLIGHTS
Trauma and its management is an integral part of paediatric surgery; therefore Department of Paediatric Surgery has made a tremendous improvement in the patient care services at the Jai Prakash Narayan Apex Trauma Center. The department has posted one senior resident and a junior resident, who are physically present in the trauma center during all hours. A paediatric surgery faculty is also present during working hours and is on call afterwards.

The department is poised for expansion with the faculty, space and the staff in the upcoming maternal and child health centre at AIIMS, developing all sub-specialities and caring for children with severe malformations, advanced cancers, trauma and others.

EDUCATION
Undergraduate, postgraduate, paramedical teaching
The department is actively involved in teaching and training of MCh. Paediatric surgery trainees, postgraduate, undergraduate, nursing students, BSc and MSc nursing students.

A new and innovative idea to develop and improve teaching and academics in our department is creation of a google group called “Surgery-paedia”. Day to day in clinical practice and during seminar various doubts and queries are generated. The doubts and queries are allotted to residents who read about the query and post the answer in the google group for the benefit of everybody.

Short term training
1. Dr Tank Nilesh Dayalbhai, PGIMER, Chandigarh, 13-26 May 2018
2. Dr Ankita Arora, Universita Degli Sudi Di Pavia (Italy), 1 August-30 September 2018
3. Dr Abdul Majid Wani, PGIMER, Dr RML Hospital, Delhi, 1-31 December 2018
4. Dr Mohd Shahid Murataza, PGIMER, Dr RML Hospital, New Delhi, 5-17 February 2018
5. Dr Sarita Chowdhury, Banaras Hindu University, 1 March-26 May 2018

CMEs/Workshops/Symposia/National and International Conferences
1. CME on Esophageal Replacement and Delhi State Chapter of IAPS Meeting, 28 July 2018
2. 2018 Indian Society of Paediatric Urology, Asian Society of Paediatric Urology Course, 29-30 December 2018

Lectures delivered

Minu Bajpai
2. Reversal of hypersplenism in EHPVO, IAPSCON-2018, 26 October 2018, PGI, Chandigarh
3. APPT by HBT, IAPSCON-2018, 27 October 2018, PGI, Chandigarh
4. Female Epispadias, IAPSCON-2018, 26 October 2018, PGI, Chandigarh
5. Hepatic perfusion index, IAPSCON-2018, 28 October 2018, PGI, Chandigarh
6. Innovation to solve concrete health problems, Global Sustainable Technology and Innovation, 28 November 2018, Brussels, Belgium
7. Health-Holland Visitors Programme 2018, World of Health Care event—Health care in India session, 26 November 2018, Rotterdam RDM Submarine Wharf, Rotterdam, Netherlands
8. Intensive care monitoring, DMAT Training Programme (Disaster Medical Assistance Team), 28 January 2019, National Hospital Organization Osaka National Hospital, Osaka, Japan
9. Trauma care, Emergency Medicine and Intensive Care, 28 January 2019, Center Hospital of the National Center for Global Health and Medicine, Tokyo, Japan

Sandeep Agarwala
1. Recurrent Wilms Tumor, Surgical Sub-Committee Meeting of SIOP-RTSG and Symposium, 19-21 April 2018, Wroclaw, Poland
2. Solid tumors in children: Approach to diagnosis and management, Annual meeting of the North-East Chapter (NEIAPS) of Indian Association of Paediatric Surgeons, 5-6 May 2018, Silchar Medical College, Silchar
3. Talk in Meet the Professor, Annual Meeting of the North-East Chapter (NEIAPS) of Indian Association of Paediatric Surgeons, 5-6 May 2018, Silchar Medical College, Silchar
4. Approach to a child with a surgical problem, Paediatric Surgery Day, 18 May 2018, The Base Hospital, Delhi
6. Wilms Tumor: Common errors during surgery, 5th CME of Paediatric Hematology Oncology Chapter of IAP, 30 June-1 July 2018, AIIMS, Bhubaneswar
7. Soft tissue sarcomas: Introduction, management guidelines and surgical Principles, Annual Conference of the Surgical Oncology Chapter (SOS) of Indian Association of Paediatric Surgeons (IAPS), 21-23 September 2018, Goa
8. Gonadal malignant germ cell tumors, 20th Annual Congress of Asia Pacific Association of Paediatric Urologists, 13-15 December 2018, Delhi
11. Evolving Paradigms: Esophageal preservations vs substitutions, CME, Delhi Chapter of IAPS, 29-30 December 2019, AIIMS, New Delhi
12. Thoracic Tumors, The Paediatric Surgical Oncology Masterclass, 11-12 January 2019, AIIMS, Bhubaneswar
Shilpa Sharma

1. Stem Cell Applications—A Surgeons Perspectives, Symposium on exploring the wonders of stem cell therapy, 2 May 2018, Dr RML Hospital, New Delhi
2. Study designs for Clinical Research, International Congress of the Romanian Society of Paediatric Surgery, 6-9 June 2018, Bucharest, Romania
4. Surgical tips for Anorectal Malformation (ARM)—How to improve outcome? International Congress of the Romanian Society of Paediatric Surgery, 6-9 June 2018, Bucharest, Romania
5. Sacrococcygeal teratoma, International Congress of the Romanian Society of Paediatric Surgery, 6-9 June 2018, Bucharest, Romania
6. Early Vaginal Replacement in Cloacal Malformation, 25th Paediatric Colorectal Club, 5-7 October 2018, Tokyo, Japan
7. Varied Facets of Rectal Duplications, 25th Paediatric Colorectal Club, 5-7 October 2018, Tokyo, Japan
8. Public Awareness Lecture series on Spina Bifida, Participated as Co-ordinator and Panelists during the Awareness Programme on Spina Bifida jointly with Department of Neurosurgery, 23 October 2018, AIIMS, New Delhi
10. Abdominal and Pelvic Trauma, ATLS Provider Course (10th Edition), 13 December 2018, Dr RML Hospital, Trauma Centre, New Delhi
11. Surgical Skills Station, ATLS Provider Course (10th Edition), 13 December 2018, Dr RML Hospital, Trauma Centre, New Delhi
13. Learning from Autopsy, International Conference on Conjoined Twins, 15 February 2019, Board Room, AIIMS, New Delhi
15. Consensus on diagnosis and management of Conjoined twins, International Conference on Conjoined Twins, 15 February 2019, Board Room, AIIMS, New Delhi
16. Live Operative workshop is an integral part of any Paediatric Surgical Endoscopic Conference: Debate, PESICON-2019, 16 February 2019, AIIMS, Jodhpur

Vishesh Jain

1. Ureterosigmoidostomy, 2018: ISPU-ASPU Course, 28 December 2018, AIIMS, Delhi

Devendra Kumar Yadav

1. Urethral substitution in urethral stricture, 2018: ISPU-ASPU Course, 28 December 2018, AIIMS, Delhi

Anjan Dhua

1. Fetal surgery, 2018: ISPU-ASPU Course, 28 December 2018, AIIMS, Delhi
2. Augmentation colostoplasty, 2018: ISPU-ASPU Course, 29 December 2018, AIIMS, Delhi
3. Choledochal cyst: Problems, pitfalls and Mx, Paediatric Surgery Update, 9 March 2018, MAMC, Delhi
4. Soft Tissue Sarcomas in children, Paediatric Surgery Update, 10 March 2018, MAMC, Delhi

Oral papers/posters presented

1. Sharma S, Yadav DK, Gupta DK, Paediatric non-Wilms renal tumors, 44th Annual Conference of Indian Association of Paediatric Surgeons, 25-28 October 2018, PGIMER, Chandigarh


9. Anand S, Dhua AK, Jain V, Agarwala S, Bhatnagar V, An unusual case of a pyloric mass in a child, Annual meeting of Delhi State Chapter of IAPS, 9 September 2018, PGIMER and DR RML Hospital, Delhi


15. Davera S, Agarwala S, Metabolic complications of augmentation colocystoplasty, IPSU and APSU CME and Meeting of Delhi Chapter of IAPS, 29-30 December 2018, AIIMS, New Delhi


17. Davera S, Dhua AK, Bhatnagar V, Sequelae of Deflux® injection—a report of two cases, Annual meeting of Delhi State Chapter of IAPS, 9 September 2018, PGIMER and DR RML Hospital, Delhi

18. Dhua A, Jain V, Agarwala S, Bhatnagar V, Various techniques for Nephron sparing surgery in bilateral Wilms tumor, Annual Conference of Delhi State Chapter of IAPS, 9 September 2018, PGIMER and DR RML Hospital, Delhi


20. Dhua AK, Goel P, Yadav D, Jain V, Malik R, Bhatnagar V, Kashyap L, Pleurodesis in a child with resistant pleural effusion by thoracoscopic pleural abrasion and innovative low-cost spraying technique of talc, Annual meeting of Paediatric Endoscopic Surgeons of India (PESI), 15 February 2019, AIIMS, Jodhpur


25. Goel P, Bajpai M, Jana M, Khanna P, Peristaltic Gastric Tube—Experience from a Tertiary Care Centre and Long-Term Results, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh


32. Goel P, Bajpai M, Development of Paediatric Sliding Scale Penometer for measurement of Stretched Penile Length, 1st National Biomedical Research Competition 2018, 15 October 2018, AIIMS, Rishikesh


35. Jain V, Agarwala S, Murali D, Dhua AK, Mittal D, Bhatnagar V, Kandasami D, Kumar R, Outcome of initial endoscopic management of ureteroceles in single systems and duplex systems, Annual meeting of PESI, 15 February 2019, AIIMS, Jodhpur


42. Mitra A, Bajpai M, Goel P, Santulli’s Type Ureteral Diversion: Dual Salvage in a Refluxing System, Annual Conference of APAPU, 14-16 December 2018, Delhi


44. Murali D, Agarwala S, Jain V, Dhua A, Bhatnagar V, H-type TEF: Technique of identification of fistula and outcomes of surgery, Annual Conference of Delhi State Chapter of IAPS, 8-9 September 2018, PGIMER and DR RML Hospital, Delhi

47. Murali D, Dhua A, Jain V, Malik R, Agarwala S, Bhatnagar V, Classical and atypical Peutz-Jeghers syndrome—A report of 2 cases, Annual Conference of Delhi State Chapter of IAPS, 8-9 September 2018, PGIMER and DR RML Hospital, Delhi
51. Nagendala MK, Dhua A, Jain V, Agarwala S, Bhatnagar V, Non-Wilms renal tumor with an IVC thrombus, Annual Conference of Delhi State Chapter of IAPS, 8-9 September 2018, PGIMER and DR RML Hospital, Delhi
52. Nagendala MK, Sharma S, Singh V, Kakkar A, Bhardwaj B, Yadav DK, Gupta DK, Clinicopathological correlation of Rare Adrenal Tumour, 44th Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
56. Pathak M, Goel P, Saxena R, Systematic Review of the Randomized Controlled Trials on hypospadias in children for Quality Assessment based on adherence to the PICOT criteria or CONSORT guidelines, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
60. Sharma K, Dhua AK, Jain V, Malin R, Bhatnagar V, Prasad G, Laparoscopic Heller’s cardiomiotomy in AAA syndrome—Case report of a rare entity, Annual meeting of PESI, 15 February 2019, AIIMS, Jodhpur
62. Sharma S, Gupta DK, Transrectal Approach for Excision of Vaginal germ Cell Tumour with Pedicled Rectal Mucosal Patch for Posterior Wall Vaginoplasty, 25th Paediatric Colorectal Club, 5-7 October 2018, Tokyo, Japan
63. Sharma S, Jyotsna PV, Yadav DK, Srivastava A, Gupta DK, Male Gender Assignment in 46 XX congenital adrenal hyperplasia, 44th Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
64. Sharma S, Yadav DK, Gupta DK, Acquainting Male cloaca: Rare anorectal malformation., 44th Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
RESEARCH

Funded projects

Ongoing
1. A study of molecular basis of hypospadias with respect to testosterone biosynthetic defects, enzyme mutation and SRY gene studies, M Bajpai, ICMR, 3 years, 2017-2020, Rs 41.5 lakhs
2. The study of clinical profile and etiopathogenesis of Disorders of Sex Development (DSD), A Pilot Study, M Bajpai, ICMR, 3 years, 2017-2020, Rs 70.77 lakhs
3. Centre for Advanced Research on Congenital uropathies and CKD, M Bajpai, ICMR, 5 years, 2018-2023, Rs 173.5 lakhs
4. A study on the histomorphology of detrusor with respect to bladder growth as related to upper and lower urinary tract outcomes, M Bajpai, DBT, 3 years, 2017-2020, Rs 39 lakhs
5. Establishing Guidelines for Fetal Counselling for Surgical Congenital Anomalies, Shilpa Sharma, DBT, 3.5 years, 2014-2017, Rs 5 lakhs
6. Reference range of serum alpha fetoprotein in children below three years of age, Devendra Kumar Yadav, AIIMS, 2 years, 2015-2017, Rs 2.3 lakhs
7. Role of cortical transit time on MAG3 scintigraphy in children with PUJ obstruction, Vishesh Jain, AIIMS, 2 years, 2015-2017, Rs 1.65 lakhs
8. Role of Plasma Renin Activity in predicting renal damage in patients with Neurogenic bladder and its correlation with existing parameters of renal damage, Prabudh Goel, AIIMS, 2 years, 2016-2018, Rs 4.8 lakhs

Completed
1. To study the role of gene environment interaction in the pathogenesis of congenital urological anomalies in children, A pilot study, M Bajpai, ICMR, 1 year 8 months, 2017-2018, Rs 46.41 lakhs

Departmental projects

Ongoing
1. Prospective study of treatment of children with Wilms’ tumor on treatment with modified NWTS-5 regimen
2. Prospective study of treatment of children with rhabdomyosarcoma on treatment with IRS-5 regimen
3. Prospective study of treatment of children with hepatoblastoma on treatment with Monotherapy and PLADO regime
4. Prospective study on five drug regimen for the management of clear cell sarcoma of the kidney
5. Evaluation of cardiotoxicity related to administration of adriamycin in children with solid tumors
6. Outcome of treatment with ICE (Ifosphamide, carboplatin and etoposide) salvage regime in children with relapsed/ recurrent solid tumors
7. Role of pulmonary metastatectomy in paediatric solid tumors
8. Functional bladder outcomes in patients in patients with bladder/prostate rhabdomyosarcomas
9. To study the trends and outcomes in children with button battery ingestion in children
10. Outcomes of non-operative management of unilateral pelvi-ureteric junction Obstruction
11. Prospective study of treatment of children with Wilms’ tumor on treatment with modified NWTS-5 regimen
12. Comparing postoperative APRI as a marker of Hepatic fibrosis following Kasai with and without Partial liver resection in biliary atresia
13. Long term outcome of neuroblastoma: Search for prognostic factors in a developing country, An ambispective study
15. Hypospadias Outcomes Long-Term Database (HOLD), A prospective cohort study
16. Long term outcome of PSARP in Anorectal malformation
17. Retrospective study of the factors that affect the long-term outcome of operated cases of hypospadias
18. A prospective study of the short-term outcomes of operated cases of distal penile hypospadias in terms of immediate and early complications
19. Assessment of long-term postoperative outcomes of anorectal function in patients with Hirschsprung’s Disease
20. MR evaluation of intra-hepatic biliary ductular architecture in patients of EHBA after Kasai’ portoenterostomy
21. Autologous platelet-rich fibrin patch in hypospadias repair, A randomised control trial
22. Early repair of small urethrocutaneous fistula in children after hypospadias surgery, A randomised controlled trial
23. To compare aspartate aminotransferase to platelet ratio index, supersonic shear wave elastography, and histopathology of the liver in patients of biliary atresia as tools to evaluate hepatic fibrosis
24. Evaluation of Interstitial Cells of Cajal-Like Cells (ICC-LC) and histopathology in congenital pelviureteric junction obstruction and their correlation with intraoperative findings
25. Button Battery ingestion in children
26. Post-operative results of hanging bowel technique of abdomino-perineal pull through
27. Role of Plasma Renin Activity in predicting renal damage in patients with Neurogenic bladder and its correlation with existing parameters of renal damage
28. Normative assessment of paediatric penile length in Indian population
29. Quality Improvement (QI) project to ensure compliance with administration of maintenance intravenous fluids to Paediatric Surgical patients called for day-care procedures in the pre-operative waiting period
30. Assessment of intra-hepatic portal anatomy (left and right portal veins) and anatomical feasibility of Rex shunt surgery on computed tomography portography in paediatric patients with Extra-hepatic Portal Vein Obstruction
31. Quality Improvement (QI) initiative to improve the quality of post-operative discharge instructions to day-care patients operated under Paediatric Surgery in CRHPS, Ballabhgarh
32. Comparison of a novel coaxial technique with conventional technique for Percutaneous Nephrostomy in Children under 5 years of age, A feasibility study
33. Validation of sliding scale penometer for measurement of stretched penile length in Paediatric Age-Groups
34. Role of F-Dopa Pet-CT in Paediatric and adult patients with Hyperinsulinemic Hypoglycemia
35. Study to identify the genotype-phenotype correlation in testicular biosynthetic defects and 5-alpha-reductase deficiency with respect to Disorders of Sex Development
36. Study to evaluate the role of serum Procalcitonin in predicting the adverse events in surgical neonates
37. A study on the Prevalence of Polymorphism in nephrogenic genes in congenital uropathies and their influence on renal functional outcomes
38. A study on Differential Expression of Molecular Markers in urine with respect to genetic propensity to congenital uropathies
39. Assessment of Growth Factor receptor expression and micro-vessel density in the ventral parareurethral tissues in hypospadias

**Completed**

1. Role of initial percutaneous nephrostomy in very poorly functioning pelviureteric junction obstruction
2. Associated Anomalies in patients with Esophageal Atresia with or without Tracheoesophageal Fistula, and its influence on survival
3. Assessment of long-term postoperative outcomes of anorectal function in patients with anorectal malformations, using anorectal manometry
4. Comparison of hepatoduodenostomy and Roux-en-Y hepatojejunostomy following excision of choledochal cyst
5. Long term outcome of esophageal replacement
6. Evaluation of renal function, renal tracts and bladder function in patients with posterior urethral valves and their correlation with age at valve fulguration
7. Do anatomical landmarks in a hypospadiac glans match those with a normal glans?
8. Correlation of hepatic artery resistive index with portal pressure and serum nitric oxide levels in patients with extra hepatic portal vein obstruction
9. Retrospective analysis of presentation and postoperative outcomes in children with Type 2 Abernethy malformation
10. Comparison of high spermatic vessel ligation, low spermatic vessel ligation of rat testis

**Collaborative projects**

**Ongoing**

1. Long term outcomes of bladder functions in patients treated for Posterior Urethral Valves, Radiology, Nuclear Medicine
2. To study the long term effects of disease and its treatment in survivors of paediatric solid tumors, Medical Oncology, Reproductive Biology, Obstetrics and Gynecology, Cardiology
3. Study of prognostic factors in thoracic PNET, Medical Oncology, Radiotherapy, Radiodiagnosis
4. Role of MIBG therapy for advanced non-responsive and recurrent neuroblastoma, Nuclear Medicine
5. Role of cortical transit time on MAG3 scintigraphy in children with PUJ obstruction, Nuclear Medicine
6. Reference range of Serum Alpha fetoprotein in Indian children below 3 years of age, Reproductive Biology
7. Intra- and inter-observer variability in the measurements of Cortical Transit Time following MAG-3 Scintigraphy in children with unilateral PUJ obstruction, Nuclear Medicine

Completed

1. Evaluation of clinicopathological characteristics treatment outcome and prognostic factors in soft tissue sarcoma patients, Medical Oncology
2. Application of Diffusion MRI in detection of multifocal hepatoblastoma and role on VEGF in multifocal and metastatic hepatoblastomas, Radiodiagnosis, Pathology
3. Role of Notch and Wnt signaling pathways in Hepatoblastoma, Pathology
4. Retrospective study of patients with mediastinal tumors undergoing surgical resection- experience at AIIMS, New Delhi, Cardio-thoracic and Vascular Surgery
5. Developmental status of children operated for esophageal atresia with or without tracheoesophageal fistula along with maternal stress, their quality of life and coping abilities, College of Nursing
6. Role of Shear wave elastography in diagnosis, prognostication and follow-up of neonatal/infantile cholestatic liver disease, Radiodiagnosis
7. Comparison of high spermatic vessel ligation, low spermatic vessel ligation in rat testis, Anatomy, Reproductive Biology

PUBLICATIONS

Journals: 35 Abstracts: 3 Chapters in Books: 2

PATIENT CARE

Outpatient Department

Paediatric surgery outpatient department is run every day. I addition specialty clinics are also run to provide more focused attention to few conditions.

Various specialty clinics run by the Department and faculty:

Monday: Hydrocephalus Clinic (Afternoon)
Tuesday: Antenatal Diagnosis and follow up (Forenoon)
Wednesday: Paediatric Urology Clinic (Afternoon)
           Craniosynostosis Clinic (Afternoon)
Thursday:  GI Hepatobiliary (Forenoon)
          Paediatric Urology, Follow-Up Clinic (Afternoon)
          IRCH: Paediatric Solid Tumor Clinic (Afternoon)
          Paediatric Solid Tumor Clinic (Main OPD)
Friday:    Paediatric Thoracic Surgery Clinic (Forenoon)
          Paediatric Urology Clinic (Afternoon)
Saturday:  Paediatric Urology, Intersex and Hypospadias (Forenoon)

Facilities available

- Intensive care unit for neonatal surgical patients
- High dependency area for Paediatric Surgical patients
- Computer based Urodynamic and uroflowmetry study
- Computer based Anorectal manometry
- Computer based Esophageal manometry
• 24 hours pH monitoring for Gastroesophageal reflux
• Impedence Manometry for Gastroesophageal reflux

Community services
• Weekly outpatient clinic and operative session at CRHSP, Ballabhgarh

Attendance in OPD and Speciality clinics

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<td>General</td>
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Admissions
AB5 ward: 2,481 (1,204 Long admissions and 1,277 short admissions)
AB5/ICU: 117

Surgical Procedures

Main OT

<table>
<thead>
<tr>
<th>Routine: Major Procedures: 1,105</th>
<th>Minor Procedures: 429</th>
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<tbody>
<tr>
<td>Emergency: Major Procedures: 327</td>
<td>Minor Procedures: 21</td>
</tr>
</tbody>
</table>

OPD Procedures (Total): 2,917

Biopsies in OPD: 71

CRHSP, Ballabhgarh: Minor cases: 75

OPD procedures: 159

Special Investigations

Urodynamic study: 206

Uroflowmetry: 451

Anorectal manometry: 31

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Minu Bajpai was Head of the International Cooperation, Domestic and International MoU, AIIMS, New Delhi; Chairman, Cafeteria Management Committee, AIIMS; Chairman, Sub-committee on Outsourcing Cafeteria Services; Moderator-Innovation to solve concrete health problems, Global sustainable technology and innovation, 28 November 2019, Brussels, Belgium; Moderator, Health-Holland Visitors Programme 2018, organized by Ministry of Health, Welfare and Sport, The Netherlands; Moderator, World of Health Care event, Health care in India session, 26 November 2019, Rotterdam RDM Submarine Wharf, Rotterdam, The Netherlands; Chairman- Session on: Paediatric surgical training in the era of Laparoscopy-PESICON-2019, 15 February 2019, AIIMS, Jodhpur; Head of delegation visiting NCKU, Hospital, Taiwan-International cooperation between NCKU, Taiwan and AIIMS, New Delhi; Head of delegation representing AIIMS-National Health care coverage in India, International Cooperation Summit, 9 April 2019, Ministry of Health and Welfare (MOHW), Taiwan, Taiwan; Head of delegation representing AIIMS, 10 April 2019, National Cheng Kung University (NCKU), Taiwan, Taiwan; Member, Visiting team led by Director, AIIMS: On site visit on intensive care monitoring, DMAT training programme (Disaster Medical Assistance Team) held at: (28 January 2019), Department of Emergency and Critical Care Medicine Nippon Medical School Post-Graduate School of Medicine, Japanese Association for Acute Medicine (JAAM), National Hospital Organization Osaka National Hospital, Osaka, JAPAN; Member, Visiting team led by Director, AIIMS: Trauma care, Emergency Medicine and Intensive Care, 28 January 2019, Center Hospital of the National Center for Global Health and Medicine, Japanese Association of Surgery for Trauma (JAST), Tokyo, Japan.

Professor Sandeep Agarwala was Executive Board Member for the Asian Association of Paediatric Surgeons; Section Editor for the Indian Journal of Paediatrics; Vice Chairman of the Resource Challenged Nations Study Group of SIOPEL; Chairman 61th Annual Report Committee of AIIMS; Co-Chairman Faculty Coordination Committee for Pulse 2018, AIIMS; Secretary AIIMSONIANS- The Alumni Association of AIIMS; Member of Committee to consider PhD reforms at AIIMS; Chairman of Messes, Shops and Establishments Committee of AIIMS; Member standing committee to regulate media reporting and disclosure of details relating to children; Member, Committee for selection of Shri Mohan Lal Wig Medal for Clinical Research; Course Instructor for Surgical Oncology Course, Conducted by International Society of
Paediatric Surgical Oncology (IPSO), and the European Board of Examination, and European society of paediatric Surgery prior to annual congress of the European society of paediatric Surgery; Course Instructor for Masterclass in Paediatric Surgical Oncology, Conducted by International Society of Paediatric Surgical Oncology (IPSO), and the European Board of Examination, and European society of paediatric Surgery; Appointed Superintendent of Hostels.

**Dr Shilpa Sharma (JPNATC)** was Executive Body member, World Federation of Association of Paediatric Surgeons, 2017-2019; Executive Council member of the International Society of Hypospadias and DSD, 2018-2020; Secretary of Research Section of Indian Association of Paediatric Surgery, 2018-2020; Editorial board member of Paediatric Surgery International; Member Standing Selection Committee for faculty recruitment of AIIMS, Patna, July 2018; Member Standing Selection Committee for faculty recruitment of AIIMS, Patna, October 2018; Honored by Delhi Public Library (Ministry of Culture Undertaking, Government of India) and Kavyashrijan Mahila Manch for “Significant Achievement in the Field of Medicine” on International Woman’s Day, 9 March 2019; Nominated as Member, Institute Ethics Committee, Superspeciality Paediatric Hospital and Postgraduate Teaching Institute, Sector 30, Noida, 2018-2019; Nominated as Member, Institute Research Committee, Superspecialty Paediatric Hospital and Postgraduate Teaching Institute, Sector 30, Noida, 2018-2019.

**Dr Anjan Dhua** was member of Annual Report Committee of AIIMS; Member of Convocation Committee of AIIMS; Awarded FACS (Fellow of the American College of Surgeons).

### 9.29. Pathology

<table>
<thead>
<tr>
<th><strong>Professor and Head</strong></th>
<th>Subrat K Panda</th>
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<tbody>
<tr>
<td><strong>Professors</strong></td>
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</tr>
<tr>
<td>Chitra Sarkar</td>
<td>Manoj K Singh</td>
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<tr>
<td>Ruma Ray</td>
<td>S Datta Gupta</td>
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<td>Venkateswaran K Iyer</td>
<td>AK Dinda</td>
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<td>MC Sharma</td>
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<td>Sandeep R Mathur</td>
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<td>Vaishali Suri</td>
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<td><strong>Associate Professors</strong></td>
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<tr>
<td>Sudheer Arava</td>
<td>Geetika Singh</td>
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<tr>
<td>Deepali Jain</td>
<td>Prasenjit Das</td>
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<td>Asit Ranjan Mridha</td>
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<tr>
<td><strong>Assistant Professors</strong></td>
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<tr>
<td>Rajni Yadav</td>
<td>Seema Kaushal</td>
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<td>Saumya Ranjan Mallick</td>
<td>Shiyap Aggarwal</td>
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<td>Adarsh Barwad</td>
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<td>Prashant Ramtke</td>
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<td>Aanchal Kakkar</td>
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<tr>
<td><strong>Group A Officers</strong></td>
<td>Himender Singh Tomar</td>
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<td>Shankar Ram Arya</td>
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**HIGHLIGHTS**

In research, we have faculty members working on virtual education and skill development, molecular Virology of Hepatitis, intestinal inflammatory diseases, Nano technology, Lung cancers, Lymphomas, Gliomas and their molecular characterization and metabolic syndromes. Functional analysis of microRNAs in Hepatitis E Virus (HEV) is in progress which is in continuation of the previous year’s work subsequent to completion of its transcriptome and long non-coding RNA analysis.

We have started giving integrated diagnosis of brain tumors incorporating molecular markers as per WHO 2016 classification.

Lung cancer predictive molecular testing has been started in routine patient care including EGFR mutations. During the last year approximately 400 new patients of lung cancer has been tested for EGFR mutation.

Flow cytometry lab has been established during the last year for diagnosis of lymphoproliferative disorders and hematologic malignancies. FISH karyotyping for refractory diffuse large B cell lymphoma for double hit and triple hit status is started. Epstein Bar virus In situ hybridization is also started for difficult cases of Hodgkin lymphomas.
Tissue microarray facility is used as a diagnostic aid in lymphomas and FISH analysis. Electron Microscopy has been incorporated to the kidney pathology of glomerulonephritis in all cases.

Upgradation of surgical pathology, cytopathology and teaching methodology is in progress. We are developing Virtual Teaching as a tool for teaching UGs, nursing students and field health workers.

EDUCATION

Postgraduate

MD students: 32  
PhD students: 3  
Senior Residents: 18

Short term training / Long term training

1. Dr Lt Col Dr Samresh Kumar has undergone Long term training for 24 months from 29 August 2016 to 28 August 2018
2. Dr Lt Col Prerna Guleria has undergone Long term training for 24 months from 13 December 2016 to 12 December 2018
3. Dr Amit Kumar Thakur, Dr Bandana Madhbari, Dr Bishwo Prakash Jung Thapa, Dr Gopal Lama, Dr Neera Pathak, Dr Prabin Chandra Tiwari and Dr Shankar Prasad Kafle from BP Koirala Institute of Health Sciences, Dharan, Nepal have completed four weeks exposure training
4. Surgeon Commander (Dr) Natasha is undergoing Long term observership for a period of 24 months starts from 28 December 2018
5. Dr Keya Basu and Dr Moumita Sengupta have completed Short term observership 17 days from 28 February to 16 March 2019
6. Dr Malvika Gaur has undergone Short term observership from 25 March to 11 April 2019
7. Dr Chettan Dass has undergone Short term observership from 1 March to 31 May 2019

CMEs/Workshop/Symposia/National and International Conferences

International CME on Lymphoma, 6 and 7 March 2019 AIIMS, New Delhi

Lectures delivered

SK Panda

1. Hepatitis E Virus (HEV): Molecular virology, 26th Annual Scientific Meeting (INASL), 4 August 2018, New Delhi

Chitra Sarkar

1. Recent advances in Medulloblastomas: Challenges to Neuropathologists, ISNOCON, 6-7 April 2018, AIIMS, New Delhi
2. Role of molecular genetics in Neuro-Oncology, Pathfinder, 15-16 September 2018, Indian Medical Association, Chennai
4. Challenges and Solutions of Molecular Classification in the Indian Context—Medulloblastoma and Other Embryonal Tumors, NPSICON, 14-17 February 2019, PGIMER, Chandigarh
5. Leadership in Healthcare: Does it Demand Uniqueness? Healthcare Leadership Summit, 3 March 2019, IIM, Bangalore

S Datta Gupta

1. Pathology Primer on IBD, IBD Master Class (of AIIMS), 10 June 2018, New Delhi
2. Histopathology of Autoimmune Hepatitis, 7th Dr V Ramalingaswami Oration and Hepatopathology Meeting, 8 August 2018, Institute of Liver and Biliary Sciences, New Delhi
3. Panelist on the Session on Biliary and Autoimmune Diseases, 7th Dr V Ramalingaswami Oration and Hepatopathology Meeting, 8 August 2018, Institute of Liver and Biliary Sciences, New Delhi
4. Histopathology of Acute Hepatitis, 39th Annual Conference: Maharashtra Chapter of Indian Association of Pathologists and Microbiologists (MAPCON 2018), 8 September 2018, Armed Forces Medical College, Pune
5. Panel Discussion on GI Pathology, 39th Annual Conference: Maharashtra Chapter of Indian Association of Pathologists and Microbiologists (MAPCON 2018), 9 September 2018, Armed Forces Medical College, Pune
6. Dysplasia in IBD: Diagnosis and Complications, 6th National IBD Meet, 15 September 2018, New Delhi
7. Faculty in Workshop on Rapid Tissue Diagnosis, Pre-conference Workshop, 45th Annual Conference of Karnataka Chapter of IAPM (KAPCON 2018), 4 October 2018, St Johns Medical College, Bangalore
8. Chronic Gastritis, Pre-conference CME, 45th Annual Conference of Karnataka Chapter of IAPM (KAPCON 2018), 5 October 2018, NIMHANS Convention Centre, Bangalore
9. Inflammatory Bowel Disease, Pre-conference CME, 45th Annual Conference of Karnataka Chapter of IAPM (KAPCON 2018), 5 October 2018, NIMHANS Convention Centre, Bangalore
10. Malabsorption Syndrome, Pre-conference CME, 45th Annual Conference of Karnataka Chapter of IAPM (KAPCON 2018), 5 October 2018, NIMHANS Convention Centre, Bangalore
11. Case Presentation (Presented 5 Cases), Pre-conference CME, 45th Annual Conference of Karnataka Chapter of IAPM (KAPCON 2018), 5 October 2018, NIMHANS Convention Centre, Bangalore
12. Lecture on Liver Biopsy, Postgraduate Training Programme (CALIPATH 2018), 27 October 2018, Government Medical College, Calicut, Kozhikode
14. Practical Session on Urinalysis, Postgraduate Training Programme (CALIPATH 2018), 27 October 2018, Government Medical College, Calicut, Kozhikode
15. Histopathology Practical Session, Postgraduate Training Programme (CALIPATH 2018), 28 October 2018, Government Medical College, Calicut, Kozhikode
16. Panelist in the Session on Medicolegal issues in routine reporting, Cutting Edge of Pathology-2, 21 December 2018, All India Institute of Medical Sciences, New Delhi
17. Hematoxylin and Eosin Staining, Cutting Edge of Pathology-2, 21 December 2018, All India Institute of Medical Sciences, New Delhi
18. Eminent Indian Pathologists: Dr V Ramalingaswami, 24th ICP-AIPNA (Indian College of Pathologists—Association of Indian Pathologists of North America) Conference, 1 February 2019, All India Institute of Medical Sciences, Bhopal

Manoj K Singh

1. Role of virtual teaching in medical teaching, The DTH/NPTEL—Medicine Workshop, 26 September 2018, IIT, Madras

AK Dinda

1. Critical issues in development of guideline for nanosafety regulation: The role of alternative test strategy, 11th European and Global Summit for Clinical Nanomedicine, Targeted Delivery and Precision Medicine—The Building Blocks to Personalized Medicine, 2-5 September 2018, European Foundation for Clinical Nanomedicine, Basel, Switzerland
3. Urinary molecular diagnostics in Kidney diseases, 11th Annual Conference of Indian Society of Renal and Transplant Pathology (ISRTPCON 2018), 18 August 2018, IPGMER, Kolkata
4. Marriage between Nanoscience and Chemistry will Revolutionize Health Care in the 21st Century, Symposium on Translational Research in Biomedical and Agricultural Sciences, 7 July 2018, AIIMS, Delhi
8. Innovation and Product Development: The Challenges in Nanomedicine, International Conference of Pharmacology and Drug Discovery, 4 October 2018, Maharaja Agrasen University, Solan
10. Role of regulatory science in development of safe Nanotechnology based product for agriculture, International Conference on Nanobiotechnology for Agriculture 2018 Detection, Conservation and Responsible Use of Natural Resources, 13 December 2018, India Habitat Center, Delhi
12. Disruptive Innovation and Regulatory Science, Workshop on, “Disruptive Translational Research in Nanobiotechnology: Advancing Sustainable Food Systems and Human Health Solutions”, 13 March 2019, India Habitat Center, Delhi
Mehar C Sharma

1. Other embryonal tumors of the CNS, Neuropathology CME, 28 April 2018, Dhaka, Bangladesh
2. Muscular dystrophies in the pediatric age group, Neuropathology CME, 28 April 2018, Dhaka, Bangladesh
4. Update in embryonal tumors of Central nervous system, MAPCON, 7-9 September 2018, AFMC, Pune
5. Embryonal tumors of the CNS, Case presentation, MAPCON, 7-9 September 2018, AFMC, Pune
6. Upregulation of programmed Cell Death Ligand-1 (PDL1) expression in RELA fusion positive ependymoma suggests a role for immunotherapy in these aggressive tumors, International Congress of Neuropathology (ICN 2018), 23-27 September 2018, Tokyo, Japan
12. Non-neoplastic lesions of pituitary gland, Annual Conference of the Neuropathology Society of India (NPSICON), 14-17 February 2019, PGIMER, Chandigarh
13. Clinicopathological Conference (CPC Epilepsy), ECON 2019, 9 March 2019, New Delhi
14. Diagnostic approach to CNS tumors according to WHO 2016 classification, 1st Annual AIIMS Patna Pathology Update (APPU 2019), 10 March 2019, AIIMS, Patna
15. Approach to common histiocytic lesions in children, Paediatric Oncology Workshop on Solid Tumors—Module 3, 17 March 2019, AIIMS, New Delhi

Vaishali Suri

1. Utility of FISH in Molecular Neuro-oncology (Workshop), 10th Annual Conference of the Indian Society of Neuro-Oncology, 6-7 April 2018, AIIMS, New Delhi
2. DNA methylation based classification and grading system for meningiomas, 10th Annual Conference of the Indian Society of Neuro-Oncology, 6-7 April 2018, AIIMS, New Delhi
3. WHO 2016 classification of Medulloblastomas, Neuropathology CME, 28-29 April 2018, Bangladesh
4. Updated WHO 2016 classification of Medulloblastomas, Neurocon 2018, 15-16 September 2018, Paras Hospital, Gurugram
5. Recent advances in WHO 2016 classification of Adult and pediatric gliomas, Neurocon 2018, 15-16 September 2018, Paras Hospital, Gurugram
7. Molecular markers in management of gliomas are necessary, 67th Annual Conference of IAPM, 30 November-2 December 2018, Bareilly
9. Was invited to deliver a talk on new insights in functional pituitary adenomas, WFNS Neuroendocrinology Symposium, 27 and 28 January 2019, Mumbai
11. Non meningothelial tumours, 4th Annual Conference of Neuropathology Society of India, 15-17 February 2019, PGIMER, Chandigarh
12. FISH techniques (Workshop), 4th Annual Conference of Neuropathology Society of India, 15-17 February 2019, PGIMER, Chandigarh
Sandeep Mathur
1. Update on Breast Cancer Pathology for Practising Breast Surgeons, ABSICON 2018 Conference, 10 November 2018, AIIMS, New Delhi
3. Cytology and Histology of cervix, AICC-RCOG NZ Comprehensive Colposcopy Course with hands on LEEP Workshop, 8 May 2019, Sant Parmanand Hospital, New Delhi
4. Liquid based Cytology, Vth, Hands-on workshop on Cervical Cancer Screening, 20 February 2018, NICPR, Noida
5. Panel Discussion Uncertainties in Breast Pathology (case based) Expectations of Surgeons and Oncologists from Pathologists and vice-versa in breast cancer cases, 2nd Annual Indian Breast Cancer Conference, 6 October 2018, Jaipur
6. Germ Cell Tumor—Slide seminar session, IAPID 2018, 28 November 2018, Rohilkhand Medical College, Bareilly
7. Approach to serous effusion: Slide seminar, 82nd IAPM Kerala Chapter Conference, 10th National CME in Pathology Minimalist Pathology-2019, 10 February 2019, Amrita Institute of Medical Sciences, Kochi
8. Immunocytochemistry, 82nd IAPM Kerala Chapter Conference, 10th National CME in Pathology Minimalist Pathology-2019, 11 February 2019, Amrita Institute of Medical Sciences, Kochi

Geetika Singh
2. Approach to allograft biopsy in kidney transplant recipients with delayed graft function, ISOTCON 2018 (Annual conference of Indian Society of Transplantation), 5 October 2018, Hyderabad
3. Paraffin immunofluorescence, Cutting edge of Pathology, 22 December 2018, AIIMS, New Delhi
4. Fibrillar glomerulonephritis: An update, 2nd Lupus Nephritis and Glomerulonephritis update, 23 February 2019, PGIMER, Chandigarh

Asit Ranjan Mridha
1. Standardization of processing technique for scanning electron microscopy imaging of isolated giant cells from giant cell tumor, International Conference on Microscopy and XXXIX Annual Meeting of EMSI—EMSI 2018, 18-20 July 2018, Mayfair Convention Centre, Bhubaneswar
2. Langerhans Cell Histiocytosis (LCH) of bone, Indian Association of Pathologists and Microbiologists 67th Annual Conference 2018 (APCON 2018), 29 November-2 December 2018, RMCH, Bareilly
4. Pathology of bone tumors (Osteosarcoma and Ewing sarcoma), Paediatric Oncology Symposium, 17 March 2019, AIIMS, New Delhi
5. Pathology of rare soft tissue sarcoma, Paediatric Oncology Symposium, 17 March 2019, AIIMS, New Delhi

Deepali Jain
1. Evaluation of microscopic capsular invasion in Thymoma: Is it clinically important? Delhi Thoracic Oncology Meet, April 2018, Delhi
2. Panelist: Imaging of chest infections, AIIMS Radiology Course, August 2018, Delhi
3. Discussant: Early stage lung cancer, World Conference on Lung Cancer (WCLC), 23-26 September 2018, Metro Toronto Convention Centre, Toronto, Canada
5. Lung molecular cytopathology: EGFR and Beyond, Cytocon, 1-4 November 2018, Institute of Nursing Education, Bambolim, Goa
6. Moderator of Symposium Updates in Molecular Cytopathology, Cytocon, 1-4 November 2018, Institute of Nursing Education, Bambolim, Goa
7. Role of EBUS in diagnosis of extrapulmonary lesions: CME on EBUS/EUS in Cytology, Cytocon, 1-4 November 2018, Institute of Nursing Education, Bambolim, Goa
8. Testing for EGFR, Sun Pharma Science Foundation Annual Conference “New Frontiers in Oncology”, November 2018, Delhi
11. Diagnosis of ILD, Symposium on A-Z of ILD, December 2018, Delhi
12. Recent advances in lung cancer and challenges for pathologists, Cutting edge of pathology, AIIMS Alumni meet, December 2018, Delhi
13. Do more with less: Optimizing diagnostic and molecular testing in small biopsy and cytology specimens of lung cancer, RGCON 2019, 8-10 February 2019, Rohini, Delhi
15. Optimum sample acquisition and processing in interventional pulmonology: The essentials, Pulmocrit 2019, 2-3 March 2019, Jawahar Auditorium, AIIMS, Delhi

Sudheer Arava
1. Heart transplantation in India, APCON 2018, 30 November-1 December 2018, RMCH, Bareilly, UP
2. Biopsy: Inflammation and viruses, Cardiovascular research convergence, 14 October 2018, AIIMS, New Delhi
3. Panel discussion: Heart failure, CRC, 13 October 2018, ICGEB, New Delhi
5. Cytic lesions of the lung, MAPCON, 7-9 September 2018, AFMC, Pune
6. Vascular lesions of the skin, MAPCON, 7-9 September 2018, AFMC, Pune
8. Approach to myocarditis, ISHR, 15-17 February 2019, Jaipur

Prasenjit Das
1. Invited faculty at CME on GVHD, Topic: ‘Liver in GVHD’, CME on GVHD, 8 April 2018, Fortis, Gurgaon
2. Invited talk on ‘use of immunohistochemistry in liver diseases’, Dr V Ramaligaswami Oration and Clinico-pathological Conference, 8 August 2018, ILBS, New Delhi
3. Invited talk on ‘When pathologists can be sure of diagnosis of inflammatory bowel disease’, National IBD Meet’ 2018, New Delhi by Crohn’s Colitis Foundation-India, 15 September 2018, New Delhi
4. Invited Faculty ‘IHC in Liver Diseases’, International Symposium on Surgical Oncology, 13 November 2018, ISGO, Jaipur
5. Invited Faculty at Prof Gaya Prasad Memorial Symposium in APCON 2018, topic ‘An algorithmic approach to liver biopsy from patients with CLD’, Association of Pathologists and Microbiologists National Annual Conference, 30 December 2018, APCON, Bareilly, UP
7. Research paper presentations at Gastro 2018 organized by the World Gastroenterology Association, Annual Conference of the World Gastroenterology Organization, 7 and 8 December 2018, Bangkok, Thailand
8. Invited Faculty at CME on Paediatric Pathology, Noida Super specialty Hospital; talk on ‘Endoscopic GI biopsies in pediatric patients’, Paediatric Pathology CME, 16 March 2019, Noida Super Specialty Paediatric Hospital, Noida, UP
9. Invited faculty at CME on Gastrointestinal Pathology, Bharti Vidyapith Medical College, Pune, Mid-Year CME on Gastrointestinal pathology of Maharashtra Chapter of IAPM, 23 March 2019, Bharti Vidyapeeth Medical College, Pune
10. Invited Faculty to talk on ‘Pathogenesis of Colorectal Carcinoma’ in EndoSurg 2019, EndoSurg’ 2019, 28 March 2019, AIIMS, Delhi
Rajni Yadav
1. Panelist in Session on “Approach to non-localized insulinoma”, ENDOSURG 2018, 19-22 April 2018, AIIMS, Delhi
2. Moderator of Quiz Session on “Liver Diseases”, Dr V Ramalingaswamy Oration and Hepatopathology Meeting 2018, 8 August 2018, ILBS, Delhi
3. Panelist in Session on “Metabolic Liver Diseases”, Dr V Ramalingaswamy Oration and Hepatopathology Meeting 2018, 8 August 2018, ILBS, Delhi
7. Slide Seminar on “Interesting Liver and GI Lesions”, International CME in Pathology, 1-3 February 2019, Institute of Nursing Education, Goa
8. Interesting Case Presentation, Midterm CME in GI Pathology, 23 March 2019, BVMC, Pune
9. Speaker on “Is it a time for TNM immune classification of colorectal cancer”, ENDOSURG 2019, 28-31 March 2019, AIIMS, Delhi

Saumya Ranjan Mallick
1. Challenging case of PTCL and role of Clonality, International Update on Multiple Myeloma and Workshop on Clonality Assay, 14 September 2018, Tata Medical Center, Kolkata
2. Plasma cell and Plasma cell Rich Lesion, CME on Plasma Cell, 28 October 2018, Amrita Institute of Medical Sciences, Kochi
3. Next Generation sequencing, Cutting Edge of Pathology, 21 December 2018, AIIMS, New Delhi
4. Morphology and Genetics of Paediatric Hodgkin and Non Hodgkin Lymphoma, Paediatric Oncopathology CME, 17 March 2019, AIIMS, New Delhi
5. What’s New in Diffuse Large B Cell Lymphoma, International conference on Hematological Malignancies and Cellular Therapy, 17 March 2019, NCC Ground, Delhi Cantt, New Delhi

Seema Kaushal
1. Emerging renal tumor entities, Update on Pathology of Male Genito-Urinary Tract, 14-15 July 2018, Amrita Institute of Medical Sciences, Kochi, Kerala
2. Bladder Tumors-Interesting case presentations, International Conference on “Update in diagnostic pathology: Morphology, Immunohistochemistry and Ancillary techniques”, 4-5 August 2018, SR Medical College and Research Institute, Chennai
3. Renal Tumors Update, Masterclass in Clinical Uro-Onco Pathology, 23-25 November 2018, Kokilaben Hospital and Research Institute, Mumbai

Shipra Agarwal
2. Molecular and pathological prognostic markers in papillary carcinoma of thyroid, CME on Current Trends in Papillary Carcinoma of Thyroid, 10 February 2019, AIIMS, Rishikesh
3. Molecular markers in Thyroid Cytology, The Cutting Edge of Pathology-2, 21-22 December 2018, AIIMS, New Delhi
4. Multi-Disciplinary Endocrine Tumor Board (Panel discussion), 16th Biennial Congress of Asian Association of Endocrine Surgeons, 9 March 2018, New Delhi
5. Update in Thyroid molecular cytopathology, 48th Annual Conference Indian Academy of Cytologists (CYTOCON 2018), 1-4 November 2018, Institute of Nursing Education, Bambolim, Goa

Prashant Ramtake
1. Pathology tissue processing and IHC, Paediatric Oncology Workshop on Solid Tumors, 17 March 2019, AIIMS, New Delhi
2. Case presentation Classical Hodgkin’s lymphoma transformation to DLBCL, International CME on Lymphoma, 6 March 2019, AIIMS, New Delhi

Adarsh W Barwad

1. Interesting case presentation of Kaposiform Hemangioendothelioma, 12th Asia Pacific Musculo Skeletal Tumor Society Conference, 4 October 2018, Jaipur
2. Decoding diagnosis in STS, 12th Asia Pacific Musculo Skeletal Tumor Society Conference Conference, 6 October 2018, Jaipur
3. Challenging cases—How to solve the diagnostic conundrum in Musculoskeletal Pathology, 5th Annual National Conference of Indian Musculoskeletal Oncology Society (IMSOS) 2019, 9 March 2019, CII-Suresh Neotia Centre for Excellence for Leadership, Salt Lake, Kolkata

Aanchal Kakkar

1. Recently Described Entities in the Sinonasal Tract, The Cutting Edge of Pathology-2: Recent Advances for Pathologists, 22 December 2018, AIIMS, New Delhi
2. Artificial intelligence; Will the pathologist become redundant? The Cutting Edge of Pathology-2: Recent Advances for Pathologists, 22 December 2018, AIIMS, New Delhi
3. Image guided FNAC of Paediatric Lesions, Paediatric Pathology: Current trends and Perspective at Super Specialty Paediatric Hospital and PG Teaching Institute, 16 March 2019, Noida
4. Diagnostic Pathology of Malignant Round Cell Tumors, Paediatric Oncology Workshop on Solid Tumors, 17 March 2019, AIIMS, New Delhi

Oral papers/posters presented

2. Anju GS, Sharma MC, *3rd place—Oral paper, NF2 hemizygous deletions and merlin loss in spinal ependymomas are not related to mTOR or Hippo pathway activation, NPSICON-2019, 15-17 February 2019, PGIMER, Chandigarh
6. Battu S, Kumar A, Suri V, Clinocopathological and molecular characteristics of pediatric meningiomas Neuropathology, NPSICON 2019, 15-17 February 2019, PGIMER, Chandigarh
7. Bhardwaj N, Kaur K, Kakkar A, Sakhivelp, Singh CA, Jain D, Mathur SR, Iyer VK, Spectrum of cytomorphological features of extranodal NK/T-cell lymphoma, nasal type, VIIth Annual Conference of Delhi Chapter of Indian Academy of Cytologists, 15 September 2018, PGIMER, Dr RML Hospital, New Delhi
11. Das P, Gahlot GPS, Badola V, Singh A, Sreenivas V, Datta Gupta S, Makharia GK, Local immune effector and regulatory T Cells in adult patients with treatment naive Celiac disease, 58th Annual Conference of Indian Society of Gastroenterology (ISGCON 2017), 14-17 December 2017, Mayfair Convention Centre, Blubaneswar


17. **GS Anju, Kaushal S, Mathur SR, Sardana R, Nayak B best poster award **Clear cell Adenocarcinoma (Mullerian type) of urinary bladder masquerading as uterine primary: A diagnostic dilemma, DC-IAPM, 17 March 2019, MAMC, New Delhi

18. Guleria P, Madan K, Malik PS, Jain D, Morphologic challenges of lung cancer in pleural effusion, Delhi Chapter Indian Academy of Cytologists, 15 September 2018, Delhi


20. Hemlata, Kaushal S, Dinda AK, Seth A, Singh G, Sahoo RK, Subtyping of primary muscle invasive bladder carcinoma into basal and luminal subtypes based on immunohistochemical markers and its correlation with clinicopathological profile, DC-IAPM, 17 March 2019, MAMC, New Delhi

21. Jahnavi M, Kakkar A, Kumar R, Jain D, Mathur SR, Iyer VK, Laryngeal metastases from breast carcinoma diagnosed on Fine needle aspiration cytology, VIIth Annual Conference of Delhi Chapter of Indian Academy of Cytologists, 15 September 2018, PGIMER, Dr RML Hospital, New Delhi


23. Jain D, Kakkar A, Guleria P, Kumar S, Immunohistochemical Assessment of BRCA1 Associated Protein-1 (BAP1) in Pulmonary Mucoepidermoid Carcinomas, World Conference on Lung Cancer (WCLC), 23-26 September 2018, Metro Toronto Convention Centre, Toronto, Canada


38. Kardam S, Kakkar K, Jain D, Barwad A, Agarwal S, Singh CA, Deo SVS, Mathur SR, Iyer VK, Secretory carcinoma (MASC): The great masquerader on fine-needle aspiration cytology, 67th Annual Conference of IAPM APCON 2018, 1 December 2018, Rohilkhand Medical College and Hospital, Bareilly


41. Kaur K, Suri V, Sarkar C, Status of tumor infiltrating lymphocytes and expression of immune checkpoint protein across infantile and pediatric astrocytoma to elucidate the role of immunotherapy in these tumors, DACPON-2019, 17 March 2019, MAMC, New Delhi

*42. Kaur K, Suri V, Sarkar C, Sharma MC, 1st prize for poster presentation, Spectrum of infantile tumors according to the WHO 2016 classification, NPSICON 2019, 15-17 February 2019, PGIMER, Chandigarh


52. Mahajan S, Suri V, Sharma MC, Analysis of Molecular Association and immune checkpoint regulators in Epithelioid Glioblastoma and pleomorphic xanthoastrocytoma: Are these tumor potential candidates for immune checkpoint blockade? NPSICON 2019, 15-17 February 2019, PGIMER, Chandigarh


55. *Nakra T, Guleria P, Madan K, Mathur S, Iyer VK, Jain D, Best poster prize, INSM-1 in small cell carcinoma of lung, Delhi Chapter Indian Academy of Cytologists, 15 September 2018, Delhi


62. **Priyadarshini, Mallick SR, Ramteke P, Jain D, Best poster prize in case reports, Cytomorphologic clues of ALK positive large B Cell Lymphoma, Delhi Chapter Indian Academy of Cytologists, 15 September 2018, Delhi


64. Priyadarshani S, Suri V, Sharma MC, CNS manifestations of cardiac myxoma: Report of two rare presentations, NPSICON-2019, 15-17 February 2019, PGIMER, Chandigarh


70. Roy D, Suri V, Sharma MC, EGFR-amplified glioblastoma occurring as a subsequent neoplasm in a child treated with craniospinal irradiation for acute lymphoblastic leukemia, NPSICON-2019, 15-17 February 2019, PGIMER, Chandigarh


77. Sharma N, Das P, Yadav R, Ahuja V, Saraya A, Datta Gupta S, Assessment of genomic diversity of Helicobacter pylori strains in gastric biopsies from residents of high altitude areas of Ladakh and lower plains of North India, APCON 2018, 28 November-2 December 2018, Rohilkhand Medical College and Hospital, Bareilly
78. Sharma N, Saraya A, Datta Gupta S, Das P, Yadav R, *H. pylori* genotyping and genomic diversity assessment in gastric biopsies from residents of high altitude (Ladakh) and lower plains of North India, Asian Pacific Digestive Week (APDW), 15-18 November 2018, Coex Convention and Exhibition Center, Seoul, Korea
84. Sriram S, Suri V, Rare case report of Pituitary Adenoma with phaeohyphomycosis, NPSICON 2019, 15-17 February 2019, PGIMER, Chandigarh, 15-17 February 2019, PGIMER, Chandigarh
87. Thomas C, Suri V, Sharma MC, Granulomas in resected pituitary masses: A clinicopathological analysis of ten consecutive cases identified over a 7-year duration, NPSICON-2019, 15-17 February 2019, PGIMER, Chandigarh, 15-17 February 2019, PGIMER, Chandigarh

RESEARCH

Funded projects

Ongoing

1. Screening of miRNA/long non coding RNA as potential prognostic/diagnostic biomarker for Hepatitis E, SK Panda, DBT, 3 years, 2016-2019, Rs 60.14 lakhs
2. JC Bose Fellowship, SK Panda, DST, Up to 2022, 2017-2022 or up to age of 68 years, Rs 95 lakhs
3. A multi-centric study to develop comprehensive molecular genetic panels for glioblastoma personalized therapy, Chitra Sarkar, DBT, 5 years, 2016-2021, Rs 50 lakhs (approximately)
4. JC Bose Research Fellowship, Chitra Sarkar, DST, 4 years, 2016-2020, Rs 15 lakhs per year
5. Unraveling the role of miRNA clusters (C14MC and C19MC) in oligodendrogiomas: Study using genetic and functional approach with clinicopathological correlations, Chitra Sarkar, ICMR, 3 years, 2017-2020, Rs 10 lakhs per year
6. Targeted genomic-epigenomic analysis to develop a novel approach for routine molecular subgrouping and identification of actionable targets in meningioma, Vaishali Suri, DST, 3 years, 2018-2021, Rs 42 lakhs approx.
7. Identification of non-coding RNA panel as novel biomarker for stratification of meningiomas and evaluation of its prognostic therapeutic significant, Vaishali Suri, Multi-Institutional Faculty Interdisciplinary Research Project with IIT Delhi, 2 years, 2018-2020, Rs 10 lakhs

8. Molecular signature of protumorigenic inflammation in the context of the WHO 2016 classification of glioma, Vaishali Suri, AIIMS inter departmental collaborative project, 2 years, 2018-2020, Rs 20 lakhs

9. Unravelling the functional relevance of Snail paralogs in the pathogenesis of pediatric ependymomas, MC Sharma, DST, 2 years, 2018-2020, Rs 45 lakhs

10. Sequencing Target genes aimed at Neuromuscular disorders in India (STAND-INDIA), MC Sharma, ICMR, 3 years, 2018-2021, Rs 50 lakhs

11. To evaluate the role of CMYC, BCL2, BCL6 AND epsteinbarr virus on survival in patients with refractory/relapsed primary diffuse large B cell lymphoma: An ambispective study, Saumyaranjan Mallick, DST, 3 years, 2016-2019, Rs 30 lakhs

12. To evaluate the role of microenvironment clonality assay and 9P24 alteration in diagnosis and prognostication of refractory Hodgkin’s Lymphoma, Saumyaranjan Mallick, DST, 3 years, 2017-2020, Rs 35 lakhs

13. To evaluate the molecular subtypes of peripheral T Cell lymphomas, Saumyaranjan Mallick, AIIMS, 2 years, 2019-2021, Rs 10 lakhs

14. Immunophenotypic profile of tumour infiltrating cells of the immune system and expression of PDL1 in triple negative/Her-2 neu positive breast cancer patients and their correlation with response to neoadjuvant chemotherapy, Sandeep R Mathur, DST, 3 years, 2017-2020, Rs 21 lakhs

15. Immunohistochemical characterization of four common viruses in a clinically suspected cases of viral myocarditis, Sudheer, AIIMS, 2 years, 2018-2019, Rs 10 lakhs

16. miRNA as disease modifier in HLA-DQ2/DQ8 matched first-degree relatives of patients with celiac disease, P Das, DST, 3 years, 2018-2021, Rs 45 lakhs

17. Identification of Comparative Genetic and Epigenetic Alterations of Various Proto-Oncogenes and Tumor Suppressor Genes, Implicated in Development of Aberrant Crypt Foci of Proximal Versus Distal Colon, P Das/ Vandana Baloda, DST under Women Scientist Scheme, 3 years, 2017-2020, Rs 27 lakhs

18. Comparison of various diagnostic modalities for identification of refractory celiac disease in a cohort of patients with celiac disease unresponsive to gluten-free diet, P Das, ICMR, 3 years, 2019-2022, Rs 37.7 lakhs

19. Development of Labyrinth based mechanical and fast isolation technique for identifying circulating tumor cells of colorectal carcinomas for metastasis evaluation, Asit Ranjan Mridha, DHR, 2 years, 2019-2022, Rs 30 lakhs

20. Prognostic relevance of TP53 mutation in advanced soft tissue sarcoma, Asit Ranjan Mridha, AIIMS, New Delhi, 2 years, 2018-2020, Rs 5 lakhs

21. Pharmacological effects Vitamin D in diabetic cardiomyopathy via ACE2/Angiotensin (1-7)/Mas receptor axis in experimental diabetic rats (Collaborative research), Asit Ranjan Mridha/Harlokesh Narayan Yadav, AIIMS, 2 years, 2019-2021, Rs 10 lakhs

22. Development of Rotary Ultrasonic Bone Drilling Machine Prototype, PM Pandey (IIT, Delhi)/Asit Ranjan Mridha, SRISTI, Ahmedabad, Gujarat, AES Boys Hostel Campus, 2 years, 2018-2020, Rs 15 lakhs

23. Study of Clinical, Laboratory and Pathological Profile of Paediatric Patients with Persistent Cholestasis, Rajni Yadav, AIIMS, 2 years, 2018-2020, Rs 9.9 lakhs

24. Evaluation of Artificial Intelligence as a Diagnostic Tool for Automated Detection and Grading of Colorectal Cancer, Rajni Yadav, AIIMS-IIT Delhi, 2 years, 2018-2020, Rs 20 lakhs

25. Study of Urinary Exosome as a Predictive biomarker for podocytic injury in childhood idiopathic nephrotic syndrome, Geetika Singh, DBT, 3 years, 2018-2021, Rs 76.17 lakhs

26. Evaluation of HPV status and its correlation with AKT/ mTOR signaling pathway activation in oral and oropharyngeal squamous cell carcinomas, Aanchal Kakkar, AIIMS, 2 years, 2017-2019, Rs 8.8 lakhs


28. Utility of newer immunohistochemistry markers in proper characterization of small B- cell non-Hodgkin’s lymphomas, Prashant Ramteke, AIIMS, 2 years, 2017-2019, Rs 6.5 lakhs

29. Ras Homolog Member A (RHOA) and Isocitrate Dehydrogenase (IDH2) mutations in Angioimmunoblastic T-cell lymphoma, Saumyaranjan Mallick, AIIMS, 2 years, 2018-2020, Rs 10 lakhs

30. Molecular subtyping of Muscle Invasive Bladder Cancer on the basis of IHC markers, Seema Kaushal, AIIMS, 2 years, 2017-2019, Rs 4.9 lakhs per year
31. Proposal for Creating and Testing Virtual Teaching Modules (MOOCs) in various areas of Healthcare, Manoj Kumar Singh, SWAYAM and SWAYAM PRABHA (Ministry of HRD), 3 years, 2018-2021, Rs 20 lakhs

32. Analysis of circulating DNA for BRAF (T1799A) mutation as a futuristic non-invasive tool for diagnosis of papillary thyroid cancer, Shipra Agarwal, ICMR, 2 years, 2018-2020, Rs 8.12 lakhs

33. Development of novel nanoparticle based Hepatitis B (HBV) vaccine with enhanced antigen presentation and prolonged immunity: Phase I, Preclinical Study, AK Dinda, DBT, 2 years, 2016-2018, Rs 92.60 lakhs

34. A novel Immuno Nano Fluorescence Assay (INFA) system for noninvasive detection of prostate cancer using urine based protein biomarkers, PSA and MSMB, AK Dinda, DST, 3 years, 2018-2021, Rs 70.89 lakhs

35. Development of minimal invasive novel injectable hydrogel and nano-carrier—Hybrid system for localized targeted cancer therapy, AK Dinda, DHR, 3 years, 2018-2021, Rs 75.56 lakhs

36. NIRMAAN 3D—Novel minimally invasive implants for reconstructive surgery using Materials providing mechanical instruction and prepared by 3D printing, AK Dinda, DBT, 4 years, 2018-2022, Rs 64.34 lakhs

37. Detection and comparison of EGFR mutations in matched tumor tissues and sera of patients with pulmonary adenocarcinoma, Deepali Jain, DBT, 3 years, 2016-2019, Rs 25 lakhs

38. A comprehensive analysis of mammalian Target of Rapamycin (mTOR) and Mitogen Activated Protein (MAP) Kinase signaling pathways in non-small cell lung carcinoma, Deepali Jain, Lady Tata Memorial Trust Young Researcher Award, 5 years, 2015-2020, Rs 29 lakhs

39. Correlation of Immunologic Milieu and PD-L1 in Non-Small Cell Lung Carcinoma, Deepali Jain, AIIMS, 2 years, 2018-2020, Rs 8 lakhs

40. Study of HPV association in Sino-nasal epithelial tumors, Deepali Jain, AIIMS, 2 years, 2018-2020, Rs 20 lakhs

Completed

1. Role of viral Protease and host endogenous protease in Hepatitis E Virus (HEV) life cycle, SK Panda, DST, 3 years, 2015-2018, Rs 58.63 lakhs

2. Establishment of rapid and economical methods for molecular subgrouping and risk stratification of medulloblastomas for routine clinical practice in developing countries, Vaishali Suri, AIIMS, 2 years, 2016-2018, Rs 10 lakhs

3. Intestinal stem cells in celiac disease, P Das, AIIMS, 1 year, 2018-2019, Rs 5 lakhs

4. Gene expression analysis of oncogene transcript in aberrant crypt foci, in comparison to the normal colonic mucosa and colorectal carcinoma, from formalin fixed paraffin embedded tissue samples, P Das, DBT, 3 years, 2016-2019, Rs 25 lakhs

5. Analysis of NPHS1, NPHS2, WT1, ACTN4 and INF2 in non syndromic focal segmental glomerulosclerosis, Adarsh Barwad, AIIMS, 2 years, 2016-2018, Rs 262.5 lakhs

6. The Virtual Skills Laboratory, Dr Manoj K Singh, DEITY, 2 years, 2014-2016 and extended up to 8 October 2018, Rs 262.5 lakhs

7. Cellular and molecular heterogeneity of normal superior and inferior parathyroid glands at different ages, Shipra Agarwal, AIIMS, 2 years, 2017-2019, Rs 9.15 lakhs

8. Development of Cost Effective Nanoparticle based Drug Delivery System of Amphotericin B for treatment against Visceral Leishmaniasis, AK Dinda, DBT, 3 years, 2015-2018, Rs 89.65 lakhs

Departmental projects

Ongoing

1. Analysis of EGFR downstream pathways in NSCLC and elucidating mechanisms for TKI resistance

2. Analysis of immune check point markers in gliomas

3. Analysis of selected transcription factors and receptors in primary hyperparathyroidism

4. Clincopathological Profile of Diffuse Large B Cell Lymphoma

5. Clinical and Histopathological Analysis of Tonsils in Obstructive Airway Patients

6. Clincopathological study of infant gliomas

7. Comparison of molecular and immune profile of Epethelioid GBMs and PXA

8. Detection of streptococcal bacterial DNA with polymerase chain reaction in excised valvular tissue of RHD patients

9. Development of low cost functionalized biocompatible polymeric wound dressing

10. Development of targeted nanodrug delivery system for Rheumatoid Arthritis

11. Differential expression of apoptosis related miRNA in diagnosis and Prognosis of Wilms Tumor and Neuroblastoma

12. DNA methylation array for molecular subgrouping of medulloblastomas
13. EMT pathway in meningioma
14. Expression of Her2 neu stain in gall bladder carcinoma and its clinical impact
15. Expression of PD1, PD-L1 and CD8 cell markers in gall bladder carcinoma and their clinical impact
16. EZH2-WNT expression and correlation in tumor invasiveness, stem cell phenotype and progression in pituitary adenomas
17. Fibrillin 1 gene mutation and TGF beta in TAAA of non marfanoid individuals
18. Histological analysis and subcategorization of progressive familial intrahepatic cholestasis
19. Histopathological evaluation of surgically excises rheumatic heart valves
20. IgA nephropathy classification according to MEST scoring using deep learning
21. Molecular characterization of endometrial cancer and its correlation with clinicopathological features
22. Molecular profiling of Epethelioid Glioblastoma
23. Prevalence of Circulating Tumour Cells (CTC) in patients with periampullary carcinoma and its correlation with recurrence-free and overall survival
24. Prevalence of refractory celiac disease: An institutional study
25. Programmed Death Ligand-1 (PDL-1) and Its Association with T Regulatory Cells in Non-small Cell Lung Carcinoma: Use of Cytology Specimens
26. Programmed Death Ligand-1 Expression in Molecular subtypes of Muscle Invasive Bladder Cancer
27. Scalp biopsy: A comparison of vertical and transverse sections in alopecia diagnosis
28. Studies on the effect of Roxithromycin in an experimental model of prostatitis
29. Study of galactose deficient IgA1 in glomerular diseases
30. Study of iron homeostasis in chronic kidney disease
31. Study of p53 immunoexpression and Ki67 LI in patients with advanced soft tissue sarcoma
32. Study of WNT and Sonic hedgehog signaling pathways in olfactory neuroblastoma
33. Subtyping of primary muscle invasive bladder carcinoma into basal and luminal types on the basis of immunohistochemical markers
34. Targatednanoparticle based drug delivery system for the treatment of Kalazar
35. Targeted sequencing of IDH negative gliomas
36. Utility of a panel of surrogate immunohistochemical and molecular markers to classify human colorectal carcinomas according to the consensus molecular subtypes and clinical correlation
37. Utility of urinary circulating cell free DNA in EGFR mutation testing of pulmonary Adenocarcinoma

**Completed**

1. A comparative study of efficacy and composition of various cell populations of extracted hair follicle outer root sheath cell suspension prepared using a single enzyme (trypsin) and multiple enzymes (trypsin, collagenase and dispase) for transplantation in vitiligo
2. An immunohistochemical and ultrastructural study of glomerular capillary endothelial injury in cellular rejection
3. Artesunate suppresses inflammation and oxidative stress in rat model of colorectal carcinoma
4. Clinical, radiological and histological differentiation between non-cirrhotic portal fibrosis and extra-hepatic portal venous obstruction
5. Clinicopathological Profile of Primary Double / Triple Expressor Lymphoma
6. Efficacy of neoadjuvant chemotherapy in carcinoma Esophagus—A pilot study comparing Cisplatic 5 FU with Paclitaxel+Carboplatin
7. Expression of Matrix Metalloproteinase-2, Matrix Metalloproteinase-9, Tissue Inhibitor Metalloproteinase-1, Tissue Inhibitor Metalloproteinase-2, Collagen I and IV Expression in Thoracic Aortic Aneurysms
8. Histological prognostic parameters in patients with acute on chronic liver disease, in comparison to non-survivors and non-decompensated cirrhosis
9. Histopathological and electron microscopic changes in ligamentum flavum in patients with degenerative lumbar canal stenosis as compared to young patients with disc herniation
10. Immunohistochemical characterization and HPV association of sinonasal carcinomas
11. Membranous Nephropathy: A study of immunofluorescence, electron microscopy and PLA2R profile with clinical correlation
12. Molecular profiling of IDH negative gliomas
13. Molecular profiling of paediatric oligodendroglioma
14. Nanostring technology for molecular subgrouping of medulloblastomas
15. Role of BRAF V600E and TERT promoter mutations in predicting aggressiveness of papillary thyroid carcinoma
16. Role of Notch and WNT signalling pathway in Hepatoblastoma
17. Stratification of breast cancer in young females by molecular subtypes
18. Study of PlaR-2 immunohistochemistry on renal biopsy of Membranous Glomerulonephritis
19. Study of chromosome 22q alterations and NF2 signaling pathways in ependymomas

Collaborative projects

Ongoing

1. A pilot study to evaluate the role of 68 GA-PSMA-HBED-CC PET/CT in patients with Anaplastic thyroid carcinoma, Nuclear Medicine
2. A prospective observational study comparing CT scan vs PET CT scan in carcinoma ovary for determining the pre operative disease burden and resectibility, Surgical Oncology
3. A prospective study to evaluate the accuracy of axillary staging using ultrasound guided Fine Needle Aspiration Cytology (FNAC) in early breast cancer patients, Surgical Oncology
4. A study on the role of miRNAs modulating signal transduction in Pancreatic Cancer, Gastroenterology and HNU, Biochemistry, Pathology
5. A study to investigate multi-system involvement in patients with celiac disease using in vitro NMR spectroscopy, Nuclear Magnetic Resonance, Gastroenterology and HNU, Pathology
6. Artificial skin (Bio-inspired bi-layer polymeric hybrid scaffold) for burn injuries in trauma care (IMPRINT Project), Center for Biomedical Engineering, IIT, Delhi
7. Assessment of depth of invasion in oral cavity squamous cell carcinoma (T1-T3) by clinical palpation and radiology and their correlation to histopathological depth of invasion, ENT, Pathology, Radiology
8. Assessment of disease severity inpatients with epithelial ovarian cancer by EMT related protein expression andmiR NA 200a,b,c, Gynaecology and Obstetrics
9. Assessment of the role of early dynamic PET/CT with 18F-Fluorocholine in differentiation of parathyroid lesions and lymph nodes in patients with primary hyperparathyroidism, Nuclear Medicine
10. Association of various genotypes of M Tuberculosis with clinical, pathological manifestation and disease outcome of Post-Primary Tuberculosis, Laboratory Medicine, Medicine, Pathology and LRS Institute of TB and Respiratory Diseases
11. Autoantibody associated alternative complement pathway dysregulation in nephrotic syndrome secondary to membranoproliferative glomerulonephritis, Paediatric Nephrology, Paediatrics
12. Autologous non cultured dermal cell suspension transplantation in treatment of facial volume loss, Dermatology
14. Biomarker for assessment of villous abnormalities in patients with celiac disease and other enteropathies, Gastroenterology and HNU, Pathology
15. Biomarkers based early diagnosis and understanding of breast cancer metastasis by infrared imaging, Biophysics
16. Brain metastasis in lung cancer, Medical Oncology
17. BRCC3 expression as a prognostic marker in Oropharyngeal squamous cell carcinoma patients and its effects on radiotherapy resistance, Otorhinolaryngology and Head Neck Surgery
18. Characterizing causes of non-motility after colectomy for Hirschprung’s Disease, Paediatric Surgery, Pathology
19. Circulating microRNAs as biomarkers for testicular germ cell tumors: A pilot study, Reproductive Biology
20. Clinical Utility of cell-free DNA in intraoperative pleural lavage fluid and plasma for patients with resectable primary pulmonary malignancies—A pilot study, Surgical Oncology
21. Clinical, Radiological and Histopathological involvement of the mandible in oral squamous cell carcinoma, ENT, Radiodiagnosis, Pathology
22. Colon cancer stem cells and their transcriptome analysis, Biochemistry
23. Comparative evaluation of MicroRNA profiling and cytokine profiling analysis in patients with Pulmonary Sarcoidosis and Mediastinal tuberculosis, Pulmonary Medicine
24. Comparison of cold cup versus bipolar biopsy specimens for bladder carcinoma, Urology
25. Comparison of diagnostic yield using graded suction pressures during EBUS TBNA, Pulmonary Medicine and Sleep Disorders
26. Comparison of Histological and Fibroscan scoring of liver fibrosis, Gastroenterology and HNU, Pathology
27. Comparison of standard 12 cores systematic TRUS guided biopsy and MRI-fusion biopsy in the detection of prostate cancer—A prospective randomized study, Urology
28. Concurrent versus sequential neoadjuvant chemoradiotherapy followed by surgery in patients with locally advanced, resectable carcinoma gallbladder: A pilot study, GI Surgery, Medical Oncology, Radiation Oncology, Pathology
29. Correlation of barrel index determined by mri in early cervical cancer with operability, lymph node status and local extension of disease, Gynaecology and Obstetrics
30. Correlation of Metabonomics and Enzyme activity Profile of Intestinal Mucosa in Celiac disease using NMR Spectroscopy and Immunohistochemistry, Nuclear Magnetic Resonance, Gastroenterology and HNU, Pathology
31. CT texture analysis of renal masses for prediction of histopathology, Radiology
32. Detection of altered protein expression in microscopic preneoplastic mucosal lesions of the colon, Pathology, GI Surgery, Surgery
33. Detection of streptococcal bacterial DNA with polymerase chain reaction in excised valvular tissue of RHD patients, Cardiology
34. Development of a new formulation and packaging for reducing adverse effects and injection pain of Mycobacterium vaccine and its clinical trial in recalcitrant anogenital and extra-genital (common) warts, Dermatology
35. Development of non-invasive diagnostic kit for ovarian cancer: A new walk on old path, Biophysics
36. Development of Rotary Ultrasonic Bone Drilling Machine Prototype, Mechanical Engineering, IIT, Delhi
37. Differences in the microvessel density and growth factors between the inner and outer preputial skin in Distal Hypospadias, Paediatric Surgery
39. Evaluation of genetic profile of olfactory neuroblastomas, Otorhinolaryngology and Head Neck Surgery
40. Evaluation of Renal Cell Carcinoma with C11-Methionine PET/CT and comparison with 18FFlourodeoxyglucosw PET/CT, Nuclear Medicine
41. Evaluation of unknown head and neck primaries metastatic to cervical lymph nodes, Otorhinolaryngology and Head Neck Surgery
42. Exploration of origins of Juvenile Nasal Angiofibroma (JNA) by histological evaluation of fetal development of “Pterygo-palatine fossa-Pterygoid canal complex” and assessment of first branchial arch remnant vidian artery in cases with JNA, ENT, Anatomy Radiodiagnosis, Pathology, Obstetrics and Gynecology
43. Exploring the phenotypic and functional role of γδ T cell subsets along with Pattern Recognition Receptors (PRRs) in the immunopathogenesis of Pemphigus Vulgaris, Pharmacology
44. Exploring the role of adipose tissue ABCA1 in determining serum HDL cholesterol, Biochemistry
45. Fat gene in gliomas, Biochemistry
46. FBXO4 as a novel Ubiquitin Ligase that targets cyclin D1 in pathogenesis of breast cancer, Biochemistry
47. Finding the correlation of Toll Like Receptors (TLRs) with inflammation in patients with chronic heart failure, Cardiology, Safdarjung Hospital
48. Genetic Study on Sertoli Cell Only Syndrome, Reproductive Biology
49. Histopathology of Celiac disease in symptomatic and asymomatic cases and family members, Gastroenterology and HNU and Pathology
50. Histopathology of Non-cirrhotic Portal Fibrosis (NCPF) and Extrahepatic Portal Venous Obstruction (EHPVO), Pathology, Gastroenterology and HNU, GI Surgery
51. Human Papillomavirus status in Penile carcinoma in Indian patients: Incidence, type distribution and correlation with Clinico-pathological staging, Urology
52. Identification of Glucose related protein 78 (GRP78) as a biomarker for tumor behavior in patients of renal cell carcinoma, Urology
53. Identification of unique morphologically identifiable preneoplastic lesions in colon mucosa during colorectal carcinogenesis, Pathology, GI Surgery, Surgery
54. IgA Nephropathy classification according to MEST scoring using deep learning, Pathology AIIMS and NIT, Delhi
55. Impact of Laparoscopic Sleeve Gastrectomy (Bariatric Surgery) on Non Alcoholic Fatty Liver Disease (NAFLD) in morbid obesity, Surgery, Gastroenterology and HNU, Pathology
56. Liver biopsy in Acute and Chronic liver disease, Gastroenterology and HNU, Pathology
57. Minimally Invasive Autopsy (MIA) in the evaluation of fetal malformations and still births—A feasibility study for the development of a standard protocol for still birth evaluation, Paediatrics
58. Molecular and Biochemical Characterization of Hepatic Glycogenosis Type Ia and III, Genetics, Paediatrics, Nuclear Magnetic Resonance and Pathology
59. Molecular and immune profile of midline gliomas, Neurosurgery
60. Molecular and immunological characterization of benign fibrousseous lesions affecting oral and maxillofacial region, Oral Pathology and Microbiology, CDER
61. Molecular biomarkers in Advanced Carcinoma of Gall Bladder treated with Gemcitabine-Platinum Doublet: Role of RRM1, RRM2, hENT1 and ERCC1, Medical Oncology
62. Molecular expression of tight junctions and disruption of mucosal epithelial cell polarity in progression of Gastric cancer, Laboratory Medicine, Gastrointestinal Surgery, Gastroenterology and HNU, Pathology
63. MR guided biopsy in detection of Prostate Cancer, Nuclear Magnetic Resonance, Urology, Radiodiagnosis IRCH, Pathology
64. Optical characterization of breast cancer, Surgery
65. Pharmacological effects vitamin D in diabetic cardiomyopathy via ACE2/Angiotensin (1-7)/Mas receptor axis in experimental diabetic rats (Collaborative research), Pharmacology
66. Phenotypic and molecular characterization of Th17 and Treg cells in renal cell carcinoma, Biochemistry
67. Predictive biomarkers for response to neoadjuvantchemoradiotherapy in locally advanced rectal cancer, Radiation Oncology, Surgical Oncology, Pathology
68. Production of a crucial therapeutic protein for Trauma and Accident care in Escherichia Coli system (IMPRINT Project), The School of Biological Sciences at IIT Delhi
69. Retrospective analysis of testicular germ cell tumours at IRCH, Medical Oncology
70. Role of circulating tumour cells and CXCR1 expression in patients with metastatic RCC, Urology
71. Role of HRCT in the diagnosis of apparently idiopathic interstitial lung diseases, Radiodiagnosis
72. Role of MRI in evaluation of residual tumor burden following neoadjuvant chemotherapy in patients with breast cancer, Radiodiagnosis
73. Role of Phosphofructokinase-P (PFKP) in Breast cancer, Med Oncology BRA-IRCH
74. Role of shear wave elastography in diagnosis, prognostication and follow up of neonatal/infantile cholestatic liver diseases, Radiology
75. Role of shearwave elastography and multiparametric MRI in the assessment of endometrial pathology, Radiodiagnosis
76. Sculpturing corneal constructs using micropatterned surface and decellularized cornea, Textile Engineering, IIT Delhi, Stem Cell Facility, RP Center
77. Study of Autophagy associated HMGB-1 and its related molecules in Urothelial Carcinoma of Bladder, Biochemistry
78. Study of cardiac markers, gross findings and histopathological Changes in heart in cases of suspected cardiac death, Forensic Medicine
79. Study of Clinical and Histopathological Features of Acute on Chronic Hepatitis, Gastroenterology and HNU, Pathology
80. Study of miRNA in pancreatic duct adenocarcinoma, Gastroenterology
81. Study of miRNA-182 and miRNA-187 as potential biomarkers in prostate cancer patients and its correlation with serum PSA, Gleason score and staging of prostate cancer, Urology
82. Study of p53 immunoexpression and Ki67 LI in patients with advanced soft tissue sarcoma, Physiology, Pathology, Biochemistry and Gynecology
83. Study of PKCιsignaling in Ovarian Serous Carcinoma, Med Oncology BRA-IRCH
84. Study of predictors of diagnostic yield of various interventional pulmonology procedures for Lung Cancer, Pulmonary Medicine and Sleep Disorders
85. Study of Sesamol in Bleomycin induced pulmonary toxicity in rat, Pharmacology
86. The clinicopathological evaluation of cholesteatoma aggressiveness, Otorhinolaryngology and Head Neck Surgery
87. The ratio of preoperative and postoperative serum bilirubin and alkaline phosphatase as simple markers to predict early outcome Post-Kasai portoenterostomy, Paediatric Surgery, Pathology
88. Thymic tumors and VATS, Laparoscopic Surgery
89. To evaluate whether a predictive microRNA signature from TCGA acts as a biomarker in Indian Colorectal Cancer (CRC) patients, Medical Oncology
90. To study correlation of TIRADS and cytological grading with final histopathology in solitary thyroid nodule, Surgical Disciplines
91. To study the role of Estrogen-Related Receptor Gamma (ERRγ) as a potential biomarker in papillary thyroid cancer, Medical Oncology Lab
92. Understanding the pathophysiology of endometriosis by protein profiling and correlation with stress, Physiology, Obstetrics and Gynecology, Reproductive Biology, Biostatistics, Pathology
93. Use of Cancer Testis Antigen POTE-E in preoperatively diagnosis of epithelial ovarian tumors: A pilot study, Gynaecology and Obstetrics
94. Validation of low cost methods for detection of KRAS mutations in colorectal cancer, Pathology

Completed

1. A comparative evaluation of HPV E6/E7 mRNA assay and high risk HPV DNA test for the Diagnosis of High Grade Cervical Intraepithelial Neoplasia, Gynaecology and Obstetrics
2. Biomarker for assessment of Villous Abnormalities in Patients with Celiac Disease and other Enteropathes, Nuclear Magnetic Resonance, Gastroenterology, Pathology
3. Colocalization of IgA&IgG anti-tissue transglutaminase antibodies in tissues of extra-intestinal celiac disease: A pilot study, Pathology, Gastroenterology
4. Comparative evaluation of Metformin and Silymarin in cyclosporine induced Hepato-renal toxicity, Pharmacology
5. Comparison of 4D CT, 4D MRI and Fluorocholine PET in the Localisation of Parathyroid Lesions in Patients with Primary Hyperparathyroidism (HPT), Radiodiagnosis
6. Detection and quantification of circulating tumour cells in Oral Squamous Cell Carcinoma, ENT, Stem Cell Facility, Pathology
7. Detection of Methylation Status of Tumour Suppressor Genes by DNA Methylation Specific PCR Array in Aberrant Crypt Foci, Pathology, GI Surgery, Surgery, Gastroenterology
8. Evaluation of Interstitial Cells of Cajal-Like Cells (ICC-LC) and histopathology in congenital pelviureteric junction obstruction and their correlation with intraoperative findings, Pediatric Surgery
9. Expression and Significance of Notch signaling-associated proteins, Notch 1, Notch 2 and Hes 1 in esophageal squamous cell carcinoma: A retrospective study, Medical Oncology
10. Gene Expression Analysis of Oncogene Transcript in Aberrant Crypt Foci in comparison to the Normal Colonic Mucosa and Colorectal Carcinoma from Formalin Fixed Paraffin Embedded Tissue Samples, Pathology, GI Surgery, Surgery, Gastroenterology
11. H pylori Genotyping and Genomic Diversity Assessment in Gastric Biopsies from Residents of High Altitude (Ladhakh) and Lower Plains of North India, Pathology, Gastroenterology
12. India Millennium Alliance project: A rapidly deployable device for wound care, ExCel Matrix Biological Devices Pvt Ltd, Hyderabad
13. Investigation of the involvement of plasma membrane ATP Binding Cassette Transporter (ABCA1) in adipose tissue mediated insulin resistance, Biochemistry
14. Molecular classification of breast cancer using FDG PET CT, MRI and NMR: A pilot study, Surgery
15. Role of 18F choline PET-CT in the localization of hyperfunctioning parathyroid tissue in patients with primary hyperparathyroidism, Nuclear Medicine
16. Role of dual energy computed tomography in the evaluation of liver fibrosis in patients of chronic liver diseases, Radiology
17. Role of shear wave elastography in diagnosis, prognostication and follow up of neonatal/infantile cholestatic liver diseases, Radiology
18. Role of shearwaveelastography and multiparametric MRI in the assessment of endometrial pathology, Radiodiagnosis
19. Role of sono-elastography in the assessment of uterine pathology, Radiodiagnosis
20. Standardizing Surgico-pathological evaluation of oral squamous cell carcinomas specimens—A prospective study, Surgical Oncology

PUBLICATIONS

Journals: 148    Abstracts: 20    Chapters in books: 10
### PATIENT CARE

#### Laboratory services

**Surgical Pathology Laboratory**

| Specimens processed | Special stains | 55,312 | 37,700 |

**Cytopathology Laboratory**

| Total specimens | FNAC (out patient) | 28,060 | 10,622 |
| Exfoliative routine | Cervical smears (PAP smears) | 10,912 | 6,526 |
| Autopsies performed | Electron microscopy | 12 | 1,250 |

**Immunohistochemistry Laboratory**

| Diagnostic | Research | 45,341 | 1,636 |

**NEUROPATHOLOGY LAB**

| Total Specimen | Frozen Section | 2,844 | 372 |

**Immunohistochemistry**

| Routine IHC | Research IHC | 7,323 | 2,700 |
| Muscle IHC | Total Muscle Received | 1,870 | 367 |
| Muscle Enzyme-histochemistry | 1,170 |
| Fluorescence in situ hybridization | 305 | Routine | 252 |

**EM Facility**

| Total muscle sample | Total nerve sample | 376 | 44 |

**Tissue Culture Lab**

| H&E Staining | Special Stains | 9,517 | 4,109 |
| Immunohistochemistry | Frozen Sections | 3,069 | 2,443 |
| Unstained | Coated slides | 2,987 | 25,191 |
| Research Block Cutting | 2,497 |

**Renal pathology services**

| Immunofluorescence of kidney biopsy | Urine sediment analysis | 876 | 1,943 |
| Electron microscopy of kidney biopsy | 846 |

**Cardiac pathology**

| Routine | Research | 460 | 176 |

**Other works**

| Immunohistochemistry | H&E stain | 48 slides | 327 slides |
| Special stains | 107 slides |
| Manual processing of post-transplant biopsies - 44 cases |
| Cutting of blocks (unstained sections) - 498 slides |
| Skin biopsy cutting | 262 cases (each 6 slides) = 1572 cases |
| Renal biopsy cutting | 550 cases (each 10 slides) |
| Frozen cutting | 60 cases (each 3 slides) |
| Coated slides | 2,000 slides |

### AWARDS, HONOURS AND SIGNIFICANT EVENTS

#### Resident Awards

**Madhu Rajeshwari S** got the first best poster award for the poster entitled “Primary histiocytic sarcoma of brain—A rare occurrence” Madhu Rajeshwari, MC Sharma, V Suri, Chitra Sarkar, at 10th annual conference of the Indian Society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.
Priyadarsani S got the third best poster award for the poster entitled ‘Diffuse leptomeningeal glioneuronal tumor’ at the 10th annual conference of Indian Society of Neuro-oncology held at All India Institute of Medical Sciences, New Delhi from 6 to 8 April 2018.

Agrima S got the third best poster award for the poster entitled, “Over-expression of Programmed Cell Death Ligand (PD-L1) suggests negative outcome in RELA fusion ependymomas.” Agrima Sharma; Prit Benny Malgulwar; Mamomohan Singh; Vaishali Suri; Chitra Sarkar; Mehar Chand Sharma at 10th annual conference of Indian Society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.

Kavneet Kaur got the third best proffered paper award for paper entitled “Molecular classification of medulloblastomas in routine practice: Where to strike a balance?” at 10th annual conference of the Indian Society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.


Anju GS won third prize for oral paper presentation—Neoplastic for ‘NF2 hemizygous deletions and merlin loss in spinal ependymomas are not related to mTOR or Hippo pathway activation’ at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.


Kavneet Kaur won first prize for poster presentation—Neoplastic/original study for ‘Spectrum of infantile tumors according to the WHO 2016 classification’ at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.


Henakhandekar was awarded second prize for poster award at DC-IAC held at Delhi on 30 September 2017.

Anju GS was awarded best poster award at DC-IAPM held at M.A.M.C, New Delhi on 17 March 2019.

Best poster award won by Diya Roy, 34th Annual Conference—Delhi Chapter IAPM’ New Delhi.

Mohammad Jassim received Best Poster Prize (First), CME on Paediatric Pathology: Current Trends and Perspective, SSPH and PGTI, Noida, UP (2019).

Kanwalpreet Kaur received Best Poster Prize (Second), CME on Paediatric Pathology: Current Trends and Perspective, SSPH and PGTI, Noida, UP (2019).

Kirti Jangra received Best Poster Prize (Third), CME on Paediatric Pathology: Current Trends and Perspective, SSPH and PGTI, Noida, UP (2019).

Nishu Bhardwaj received Best Poster Prize (Fourth), CME on Paediatric Pathology: Current Trends and Perspective, SSPH and PGTI, Noida, UP (2019).

Priyadarshini Shrest received Poster Prize in case reports DC-IAC held at Delhi on 30 September 2017.

Tripti Nakraben received Poster Prize in case reports DC-IAC held at Delhi on 30 September 2017.

Professor Subrat K Panda was Chairman, Medical council CSIR; Advisor BIRAC (DBT).

Professor Chitra Sarkar was appointed as President, AIIMS, Kalyani by Ministry of Health and Family Welfare; Chairperson of the Committee constituted by Ministry of Health and FW to suggest recommendations regarding Bhopal Memorial Hospital and Research Centre (BMHRC); Member, Governing Body of Institute of Medical Sciences, Banaras Hindu University; Member, THSTI Society Committee; Nominated Member of DST-INSPIRE Fellowship Standing Committee; Nominated Member of Expert Evaluation Committee of DST-INSPIRE Fellowship; Organizing Chair of 10th Annual Conference of the Indian Society of Neuro-Oncology (ISNOCON 2018) held at AIIMS, New Delhi from 6 to 8
April 2018; Also organized Pre-conference workshop on Molecular Neuro-Oncology; Chairperson, Women’s Grievance Cell, AIIMS; Chairperson, Prevention of Sexual Harassment of Women at AIIMS; Coordinator for Memorandum of Understanding between AIIMS and other Institutions for Collaborative Research; Member of Nano Mission Council (NMC) of Department of Science and Technology, Government of India; Member, Apex Committee for North Eastern Region Biotechnology Programmes of Department of Biotechnology; Vice President of the International Society of Neuropathology; Secretary, Neuropathology Society of India; Selection committee member for Ranbaxy Awards; Member of Sectional Committee (Health Sciences) of INSIA; Member, Editorial Board of Journal Neuropathology (published from Japan); Member, Assessment Committee for scientists’ promotions of ICMR; Member of the Governing Body and Scientific Advisory Committee of National Brain Research Centre, Manesar; Member of the Scientific Advisory Committee of Institute of Pathology, New Delhi; Co-chairperson of Human Ethics Committee of National Institute of Immunology, New Delhi; Member, Oncology Sub-Committee of NCD-III, ICMR.

Professor S Datta Gupta continues as Dean (Examinations); was nominated as the President of the International Academy of Pathology—Indian Division (IAP-ID); continues as Fellow of the National Academy of Medical Sciences; continues as an Associate Editor of the Indian Journal of Pathology and Microbiology; was nominated as a Member of the Editorial Board of the Annals of National Academy of Medical Sciences; Continues as a Member of the Editorial Board of the Indian Journal of Laboratory Physicians and Indian Journal of Chest Diseases.

Professor Manoj K Singh Chaired session in 8th CODFICON, Annual Conference of Contact and Occupational Dermatosis Forum of India, Amer, Jaipur held on 20 September 2018 in the Department of Pathology, Jaipur; 67th Annual Conference of Indian Association of Pathologists and Microbiologists and IAP-ID held on 28 November-2 December 2018 in the Department of Pathology, Bareilly.

Professor AK Dinda appointed as Visiting Professor AIIMS, Rishikesh.

Professor MC Sharma received AIIMS Excellence Award (3rd place) for best published paper ‘C11 orf95-RELA fusions and upregulated NF-KB signaling characterize a subset of aggressive supratentorial ependymomas that express LICAM and nestin’ in Institute Day, 2018; Best Poster Award at International Congress of Neuropathology (ICN-2018) held at Tokyo, Japan; AIIMS Oncology Award, 2nd Place Basic Research for best published paper ‘Transcriptional co-expression regulatory network analysis for Snail and Slug identified ILIR1, an inflammatory cytokine receptor to be preferentially expressed in ST-EPN-RELA and PF-EPN—A molecular subgroups of intracranial ependymomas, 1st Annual AIIMS Research Day, 26 March 2019.’

Professor Vaishali Suri got ISNO Annual Award for outstanding work in Neurooncology at the at 10th annual conference of the Indian Society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.

Professor Sandeep R Mathur has been given extended appointed as Secretary of the Delhi Chapter of Indian Academy of Cytologists for 3 years till 2020.

Dr Deepali Jain was invited as a faculty speaker World Conference on Lung Cancer (WCLC) for chairing a session on pathology of lung cancer in September 2018 Toronto, Canada; Chairperson Symposium on Lung Cancer Pulmocrit 2019, March 2019, Delhi.

Dr Seema Kausal was successfully awarded Membership of National Academy of Medical Sciences (MNAMS).

Dr Asit Ranjan Mridha was HRD—Long Terms Fellow in Foreign Institute, 2018; Member of National Academy of Medical Sciences (India), 2018; Consolation Prize in Cytology Poster Presentation (Co-author), 2018.

Dr Prasenjit Das received Professor VR Khanolkar Award for Published paper of the APCON 2018, by the Indian Association of Pathologists and Microbiologists.

Dr Geetika Sigh was awarded Dr NC Nayak Oration for Talented Young Pathologist at the Annual Meeting of the Delhi Chapter of Indian Association of Pathologists and Microbiologists.

Dr Shipra Agarwal received 2018 Travel Grant Award from the International Society of Dermatopathology (ISDP).

Dr Adarsh Barwad completed fellowship of Royal Collage of Pathologist Part I in Autumn 2018.

Dr Prashant Ramteke received Dr Panna Choudhury Memorial Award for best original article published in the Journal of Cytology in year 2018.

VISITING SCIENTIST
Dr Paramjeet Randhawa, University of Pittsburgh Medical College, Pittsburgh, USA.
HIGHLIGHTS
The department is running ADR Monitoring Centre (ADR-AMC) under Pharmacovigilance Programme of India (PvPI) and Medical Device Monitoring Centre (MDMC) for Materiovigilance Programme of India (MvPI) by Ministry of Health and Family Welfare, Government of India with Dr Pooja Gupta as the coordinator for both ADR-AMC and MvPI.

EDUCATION
The department is engaged in the teaching programmes of BSc Nursing (Hons), MBBS, MSc (Pharmacology), MD, PhD and DM (Clinical Pharmacology) courses.

CMEs/Workshops/Symposia/National and International Conferences
1. CME on “Pharmacologists in Indian Healthcare system” was organized on 15 April 2018 at AIIMS, New Delhi
2. Guest lecture entitled “Novel approaches to overcome multi-drug resistance in cancer” was delivered by Dr Amit K Tiwari, Assistant Professor and Principal Investigator, Cancer Chemotherapy and Systems Therapeutics, Department of Pharmacology and Experimental Therapeutics, University of Toledo on 25 June 2018, AIIMS, New Delhi
3. The department conducted a training course from 1 October to 22 November 2018 in Clinical Pharmacology for three WHO fellows from North Korea
4. Guest lecture entitled “Non-apoptotic cell death induction to target difficult-to-treat resistant tumors” was delivered by Dr Amit K Tiwari, Assistant Professor and Principal Investigator, Cancer Chemotherapy and Systems Therapeutics, Department of Pharmacology and Experimental Therapeutics, University of Toledo on 5 November 2018, AIIMS, New Delhi
5. Guest lecture entitled “The use of Zebrafish in the study of disease and drug discovery” was delivered by Dr Frederick E Williams, Chair, Department of Pharmacology and Experimental Therapeutics, Director of Zebrafish Research, University of Toledo on 5 November 2018, AIIMS, New Delhi
6. Guest lecture entitled “Overview of structure and function of Clinical development and Medical affairs in Pharmaceutical industry” Dr B Guruprasad, Associate Medical Director, Ophthalmology at Novartis USA on 5 November, AIIMS, New Delhi

Lectures delivered
VL Kumar
1. Pharmacogenomics: An appraisal, Recent Trends in Pharmacology Research, 18 December 2018, AIIMS, New Delhi
2. Current trends in drug development, Recent Advances in Pharmacotherapy, 28 March 2019, SPER, Jamia Hamdard, New Delhi
3. 3D culture system—An emerging tool in drug development, National Workshop on Alternative Methods to Animal Testing, 29 March 2019, Shaheed Rajguru College of Applied Sciences for Women, University of Delhi, Vasundhara Enclave, New Delhi

KH Reeta
1. Pharmacotherapy of cognitive impairment, 1st Annual Conference of Association of Physiologists and Pharmacologists of India, Delhi Chapter, 7-8 September 2018, VMMC, New Delhi

Pooja Gupta
1. Causality assessment of ADRs: Logic and methods, 11th Skill Development Programme on Pharmacovigilance, 14 November 2018, Indian Pharmacopoeia Commission, Ghaziabad
2. Materiovigilance and Haemovigilance, Workshop on Medicine Safety and Pharmacovigilance, 16 January 2019, SGT Medical College, SGT University, Gurugram

Sudhir Sarangi
1. Panel discussion on healthcare system, CME on Pharmacologists in Indian Healthcare System, 15 April 2018, AIIMS, New Delhi
2. Data management in clinical trials, 1st GCP Training Workshop, 19-20 May 2018, PGIMER, Chandigarh
4. Focussed Pharmacovigilance, Workshop on “Medicine Safety and Pharmacovigilance”, 16 January 2019, SGT Medical College, SGT University, Gurugram

Amita Srivastava
1. Role of Poison Information Centre in Emergency Department, The ISTOLS Master class and Workshop Hands-on-Practical training on High Fidelity Simulation in Managing Toxicological Emergencies as part of Indian Society of Toxicology Course (ISTOLS), 24-25 June 2018, The Medicity Hospital, Gurugram
2. Determination of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES), 9th International Conference on Legal Medicine Medical Negligence and Litigation in Medical practice and 9th International Conference on current Trends in Forensic Sciences, Forensic Medical and Toxicology (IAMLE2018), 26-28 October 2018 DY Patil Medical College, Hospital and Research Centre, Pune

Oral papers/posters presented
1. Arya DS, Malik S, Suchal K, Bhatia J, Apigenin ameliorates streptozotocin induced diabetic nephropathy in rats by modulation of oxidative stress, apoptosis and inflammation through MAPK pathway, 27th Meeting of the International Society of Hypertension (ISH) (Hypertension Beijing-2018), 20-23 September 2018, Beijing International Convention Centre, Beijing, China
2. Bhargava P, Bhatia J, Arya DS, Cardioprotective role of hesperidin in experimentally induced cardiac hypertrophy in Rats, 27th Meeting of the International Society of Hypertension (ISH) (Hypertension Beijing-2018), 20-23 September 2018, Beijing International Convention Centre, Beijing, China
5. Bhatia J, Khan SI, Arya DS, Xanthine oxidase inhibition protects against myocardial injury through modulation of the MAPK/NK-κB/TNF-α pathway, 18th World Congress of Basic and Clinical Pharmacology, 1-6 July 2018, International Conference Center, Kyoto, Japan


9. Hussain Md, Rashid H, Katyal J, Gupta YK, Effect of antidepressants (sertraline, escitalopram) in combination with anti-epileptic drugs (sodium valproate, levetiracetam) on seizures, cognitive impairment and oxidative stress in rats, 1st Annual Research Day of AIIMS, 26 March 2019, AIIMS, New Delhi

10. Jakhar D, Yadav HN, Dinda AK, Antiobesity activity of liraglutide based oral nano formulation on high-fat diet induced obesity in mice, 1st Annual Research Day of AIIMS, 26 March 2019, AIIMS, New Delhi (2nd prize on 1st Annual Research Day of AIIMS organized by All India Institute of Medical Sciences, New Delhi on 26 March 2019)


12. Kaur N, Sarangi SC, Tripathi M, Need for pharmacoeconomic considerations between conventional and newer AEDs Monotherapy Treatment in PWE, 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi

13. Malik S, Suchal K, Arya DS, Apigenin ameliorate streptozotocin induced diabetic nephropathy in Rat, 18th World Congress of Basic & Clinical Pharmacology, 1-6 July 2018, International Conference Center, Kyoto, Japan


15. Mutneja E, Verma VK, Arya DS, Cardioprotective effect of morin against oxidative stress and apoptotic damage in experimental model of Isoproterenol induced myocardial necrosis in Rats, 16th Annual Conference of International Society for Heart Research (ISHR-2019), 15-17 February 2019, Jaipur

16. Patel V, Katyal J, Rashid H, Gupta YK, Effect of pentylenetetrazole-induced seizures on serum Brain Derived Neurotrophic Factor (BDNF) levels and cognition in Rats, 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi (1st Prize for e poster at 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association, ECON 2019).

17. Pattnaik SS, Sarangi SC, Tripathi M, Association of antiepileptic drugs with abnormalities in physical fitness, reproductive status and quality of life in women with epilepsy, 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi


20. Reeta KH, Singh D, Sharma U, Jagannathan NR, Gupta YK, Monomethyl fumarate improves ischemia reperfusion damage and reduces oxidative stress in experimental model of ischemic stroke in Rat, 18th World Congress of Basic and Clinical Pharmacology, 1-6 July 2018, International Conference Center, Kyoto, Japan


22. Sarangi SC, Kumar S, Tripathi M, Ramanujan B, Gupta YK, Risk of seizure recurrence in persons with epilepsy undergoing AED tapering, 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi (Best Star Paper Award (2nd prize) for oral presentation at 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association, ECON 2019).

23. Singh D, Reeta KH, Gupta YK, Monomethyl fumarate mitigates ischemia reperfusion injury by activating Nrf2/HO1 pathway in experimental model of ischemic stroke in Rat, 3rd European Stroke Organization Conference, 16-18 May 2018, The Swedish Exhibition and Congress Centre, Gothenburg, Sweden

24. Singh S, Supplementation with Terminalia chebula attenuates the tacrolimus induced nephrotoxicity in experimental models, 18th World Congress of Basic and Clinical Pharmacology, 1-6 July 2018, International Conference Center, Kyoto, Japan

26. Yadav HN, Sharma US, Gupta YK, Singh S, The protective effect of *Tribulus terrestris* and it’s combination with *Boerhaavia diffusa* and *Terminalia chebula* against cisplatin induced nephrotoxicity in Rats, 18th World Congress of Basic and Clinical Pharmacology, 1-6 July 2018, International Conference Center, Kyoto, Japan

**RESEARCH**

**Funded projects**

**Ongoing**

1. A study to assess the prevalence and effect of concurrent drug therapy mentioned in Indian system of medicine along with modern drug therapy received in patients, SK Maulik, ICMR, 3 years 2 months, 2016-2019, Rs 18.72 lakhs

2. Anti-inflammatory strategy in the treatment of pulmonary artery hypertension: An experimental study, SK Maulik, ICMR, 3 years, 2017-2020, Rs 17.92 lakhs

3. Depression in persons with epilepsy (PWE): Correlation with Serum biomarkers and CYP2C19 polymorphism, a pilot study, Jatinder Katyal, AIIMS, New Delhi, 2 years, 2018-2019, Rs 7.87 lakhs

4. Development of solid lipid nanoparticles for oral delivery of liraglutide, an anti-diabetic drug, HN Yadav, DBT, 2 years, 2018-2020, Rs 14.75 lakhs

5. Effect of antiepileptic drug monotherapy with levetiracetam and valproate on metabolic status in women with epilepsy, SC Sarangi, AIIMS, New Delhi, 2 years, 2018-2020, Rs 5 lakhs

6. Evaluation of Fumaric Acid Esters (FAEs) in experimental model of Stroke in Rats, KH Reeta, DBT, 3.5 years, 2015-2019, Rs 59.54 lakhs

7. Evaluation of safinamide in experimental model of stroke and post stroke seizure behaviour in rats, KH Reeta, DST, 3 years, 2018-2021, Rs 27.61 lakhs

8. Evaluation of the nephroprotective effect of berberine and diadzein in cisplatin induced nephrotoxicity in rats, Jagriti Bhatia, DBT, 4 years, 2015-2019, Rs 24.99 lakhs

9. Formulation and evaluation of lipid-based nanoparticles of epalrestat in experimental diabetic neuropathic pain in Wistar Rats, HN Yadav, AIIMS, 2 years, 2017-2019, Rs 5 lakhs

10. Pharmacodynamic and pharmacokinetic interactions of the Ayurvedic formulation (BGR-34) with glibenclamide in experimental model of diabetes in Rats, SC Sarangi, AIMIL Pharmaceuticals, New Delhi, 3 years, 2018-2021, Rs 21.01 lakhs

11. Pharmacological and molecular approaches to investigate the effect of *Adhatodavasica* in experimental model of bleomycin induced pulmonary fibrosis, Jagriti Bhatia, Central council for research in Unani Medicine, Department of AYUSH, 3 years, 2018-2021, Rs 55.42 lakhs

12. Preliminary pharmacological and safety studies of Homeopathic Drugs, Surender Singh, Central Council for Research in Homoeopathy, Department of AYUSH, 2 years, 2017-2019, Rs 27.56 lakhs

13. Role of Brain Derived Neurotrophic Factor (BDNF) as a potential biomarker in seizure related cardiac abnormalities, Jatinder Katyal, DST, 2 years, 2017-2019, Rs 22.03 lakhs

14. Surface engineered Silver (Ag) nanoparticles and Peptide conjugate for angiogenesis based animal wound management, HN Yadav, DBT, 3 years, 2018-2021, Rs 87.36 lakhs

15. Targeted Co-delivery of P53 modulator and anti-cancer drugs to achieve synergistic effect for cancer therapeutics, HN Yadav, DST, 5 years, 2016-2021, Rs 35 lakhs

16. To study the influence of CYP2C19 polymorphism on bortezomib blood concentration and clinical response in myeloma patients, Pooja Gupta, DST, 3 years, 2017-2020, Rs 25.31 lakhs

**Completed**

1. A prospective observational study to find out correlation of serum Antiepileptic Drug (AED) and biomarkers levels with seizure recurrence in Persons with Epilepsy (PWE) undergoing AED tapering, SC Sarangi, AIIMS, 2 years, 2016-2018, Rs 5 lakhs

2. Evaluation of the frequency of polymorphisms affecting lead and mercury toxicity among children with cerebral palsy, Sunder S Samuel, AIIMS, 2 years, 2017-2019, Rs 4.2 lakhs

3. Nano-berberine for protection against chemotherapy induced cardiotoxicity in *vitro*, Pooja Gupta, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
4. Studies on the efficacy of latex of *Calotropis procera* in experimental models of colitis and colorectal cancer, VL Kumar, AIIMS, 2 years, 2016-2018, Rs 8.24 lakhs

5. To determine the effect of seizures on neurogenesis and cardiac remodelling in lithium pilocarpine model in Rats—role of AT1 receptor blocker losartan and kappa opioid receptor agonist U50488, Jatinder Katyal, AIIMS, 2 years, 2016-2018, Rs 4.95 lakhs

**Departmental projects**

**Ongoing**

1. A randomized controlled trial to study the effect of Medication Adherence Tools in Heart Failure patients (MAT-HF)

2. A randomized double-blind cross over study to assess the effect of regular and decaffeinated coffee on psychomotor performance in healthy volunteers during post-lunch period

3. An observational study to compare the effects of newer drugs (ARNI and Ivabradine) with standard heart failure medications in de-compensated heart failure patients (Trends in heart—THF study)

4. Comparative evaluation of metformin and silymarin in cyclosporine induced hepato-renal toxicity

5. Comparison of effect of antidepressants on neurodegeneration in patients with depression

6. Comparison of newer and conventional antiepileptic drugs in focal and generalized seizures in terms of quality of life and cost of treatment

7. Correlation of serum amyloid A1, interleukin 1 beta with response to anti-tubercular therapy in pulmonary and extra-pulmonary tuberculosis: A pilot study

8. CYP2C19 polymorphism in Persons with Epilepsy on Levetiracetam

9. Depression in Persons With Epilepsy (PWE): Correlation of Serum BDNF and Zinc levels

10. Development of nanoparticles based oral formulation of liraglutide and evaluation of its effect in high fat diet induced obesity in mice

11. Effect of antiepileptic drugs on physical activity, reproductive endocrine health and quality of life in women with epilepsy

12. Effect of ascorbic acid supplementation on pulmonary functions in persons of age ≥35 years: A randomized controlled pilot study

13. Effect of neoadjuvant chemotherapy on markers of inflammation and oxidative stress in breast cancer patients

14. Evaluation of neuroprotective potential of Andrographolide in ICV-STZ induced cognitive impairment in Rats

15. Evaluation of tideglusib in experimental model of stroke in Rats

16. Formulation of oral liraglutide polymeric nanoparticles and evaluation of its hypoglycemic activity in experimentally induced diabetes mellitus in Wistar Rats

17. Open-label versus double blind placebo treatment for experimentally induced pain in healthy volunteers: A pilot study

18. Pharmacodynamic and pharmacokinetic study of *Terminalia bellerica* and *Glycirrhiza glabra* in experimental models of arthritis

19. Pharmacological and molecular approaches to investigate selected drug in model of ischemia-reperfusion injury in Streptozotocin Induced Diabetic Rats

20. Pharmacological and molecular characterization of the cardioprotective effect of teriflunomide in experimental models of myocardial infarction and diabetic I/R-injury in Rat Heart

21. Pharmacological and molecular studies on fisetin in experimental models of myocardial infarction in Type 2 Diabetic Rats

22. Pharmacological study on arglabin in experimental model of myocardial ischemia-reperfusion injury in Rats

23. Prescribing pattern in advanced Non-Small Cell Lung Cancer (NSCLC) at IRCH, AIIMS with quality of life and cost analysis

24. Risk of seizure recurrence in persons with epilepsy undergoing AED tapering

25. Studies on abatacept in an experimental model of isoproterenol induced cardiac hypertrophy

26. Studies on the effect of artesunate in experimental model of sepsis

27. Studies on the effect of roxithromycin in an experimental model of prostatitis

28. Studies on the effect of roxithromycin in experimental model of sepsis

29. To evaluate the effect of abatacept on carbon tetrachloride induced hepatotoxicity
30. To study the effect of sesamol in bleomycin induced pulmonary toxicity in Rats
31. VEGF-A as a biomarker for diagnosis and therapeutic monitoring in patients with extra-pulmonary tuberculosis: A pilot study

Completed
1. A pilot study exploring GRP78 as a biomarker of responsiveness to bortezomib based regimen in multiple myeloma patients
2. A pilot study to compare the effect of platinum-based chemotherapy regimens on inflammatory and oxidative stress markers in patients with non-small cell lung cancer
3. An interaction study of Ocimum sanctum and levetiracetam in pentylenetetrazol induced kindling model of epilepsy
4. Correlation of pentylenetetrazole induced seizures and cardiac changes: Serum biomarkers and histopathology
5. Effect of H. pylori eradication therapy in patients with Non-Alcoholic Fatty Liver Disease (NAFLD) on liver fat: A randomized controlled pilot study
6. Efficacy of methanol extract of latex of Calotropis procera in experimental model of colitis
7. Efficacy of methanol extract of latex of Calotropis procera in experimental model of colorectal cancer
8. Estimation of monoamine oxidase-A (MAO-A) in blood and its correlation with bona metastasis and castration resistance in prostate cancer patients
9. Evaluation of anti-arthritis and nephroprotective potential of Trigonella foenum graecum leaf extract in experimental models
10. Evaluation of the analgesic effect of metformin in experimental models
11. Factors associated with seizure recurrence in persons with epilepsy undergoing anti-epileptic drug tapering: A prospective observational Study
12. Neuropsychiatric morbidity and quality of life among the persons with epilepsy on antiepileptic drug treatment in a tertiary hospital
13. Potential effects of kappa opioid receptor in prevention of epileptogenesis and spontaneous recurrent seizures in experimental model in Rats
14. Safety profile and use pattern of antiepileptic drugs: A cross sectional study
15. Study of Pyrrolidine dithiocarbamate on experimental model of Alzheimer’s Disease in Rats

Collaborative projects
Ongoing
1. A randomized controlled pilot trial to compare the efficacy of Rituximab infusion versus intravenous Dexamethasone Pulse therapy in Pemphigus vulgaris and its correlation with phenotypic and functional determinants of B and T cells, Dermatology
2. A study to determine the association of trace elements and heavy metals with lung cancer and their correlation with smoking, Medical Oncology, IRCH, AIIMS
3. Blood heavy metals and quantitative EEG correlates in children with Autism, Paediatrics
4. Comparative evaluation of simvastatin gel and diode laser for pulpotomy in primary molars: Single blind, phase 2 randomized trial, Paediatric Dentistry, CDER
5. Evaluation of the frequency of polymorphism affecting lead and mercury toxicity among children with cerebral palsy (Pb), Paediatrics
6. Pharmacological effects of vitamin D in diabetic cardiomyopathy via ACE-2/Angiotensin (1-7)/Mas receptors axis in experimental diabetic Rats, Pathology

Completed
1. A prospective observational study to find out correlation of serum Antiepileptic Drug (AED) and biomarkers levels with seizure recurrence in Persons With Epilepsy (PWE) undergoing AED tapering, Neurology
2. A prospective study to evaluate the patterns of nicotine withdrawal in newly diagnosed head and neck squamous cell carcinoma patients and its impact on peri-operative outcomes, Otorhinolaryngology and Head-Neck Surgery

PUBLICATIONS
Journals: 24    Abstracts: 4    Chapters in Books: 2
PATIENT CARE

Estimation of metals in biological samples with ICP-AES Spectrophotometer

The department has been involved in the estimation of number of metals such as heavy metals Pb, Cd, Hg, As, and trace metals Cu, Zn, Ni, Al, Cr, Co in biological samples of human and animal model (blood, serum, tissues) and Ayurvedic formulations for collaborative studies by Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES) Spectrophotometer (Model JY-2000@2) at PPB levels.

Therapeutic Drug Monitoring Facility

TDM (Therapeutic Drug Monitoring) Facility in the Department of Pharmacology has been engaged in estimating drug levels in patient samples as part of funded projects. High Performance Liquid Chromatography (HPLC) systems are used for qualitative and quantitative estimations of drug levels in patient samples. WinNonlin software available with the department is used to estimate pharmacokinetic parameters.

National Poison Information Centre

The National Poisons Information Centre (NPIC) in the Department of Pharmacology plays a vital role in providing information on management of poisonings. Round the clock service rendered by NPIC is availed by treating physicians, government agencies, NGOs, and general public from all over the country.

Poisoning calls received by National Poisons Information Centre

<table>
<thead>
<tr>
<th>Item</th>
<th>n</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Total no. of calls</td>
<td>3,938</td>
<td>96.3</td>
</tr>
<tr>
<td>Poisoning Calls</td>
<td>3,793</td>
<td>96.3</td>
</tr>
<tr>
<td>Information Calls</td>
<td>145</td>
<td>3.6</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2,367</td>
<td>62.4</td>
</tr>
<tr>
<td>Female</td>
<td>1,426</td>
<td>37.5</td>
</tr>
<tr>
<td>Age groups (years)</td>
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<td></td>
</tr>
<tr>
<td>0-6</td>
<td>2,055</td>
<td>54.1</td>
</tr>
<tr>
<td>&gt;6-12</td>
<td>215</td>
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<td>&gt;12-16</td>
<td>180</td>
<td>4.7</td>
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<tr>
<td>&gt;16-18</td>
<td>81</td>
<td>2.1</td>
</tr>
<tr>
<td>&gt;18-30</td>
<td>781</td>
<td>20.5</td>
</tr>
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AWARDS, HONOURS AND SIGNIFICANT EVENTS


Professor KH Reeta was member, Subject Expert Committee (SEC), Drugs Controller General (India) Office to advise DCGI in matters related to approval of (a) clinical trials, (b) new drugs and (c) new medical devices.

Dr Pooja Gupta was member, causality assessment subcommittee and media and advocacy subcommittee under National AEFI (Adverse Events Following Immunization) Committee, MoH&FW, Government of India; Member, PSUR review committee for vaccines and Subject Expert Committee (SEC) for various therapeutic panels for the Office of the Drugs Controller General (India); Member, Subcommittee for medicines under Standing National Committee on Medicines (SNCM) for revision of National List of Essential Medicines (NLEM) 2015, MoH&FW, Government of India; Participated in the updation of Good Clinical Practice (GCP) guidelines by CDSCO, MoH&FW, Government of India; Member Secretary for
Institute Ethics Subcommittee for monitoring of adverse events in clinical trials at AIIMS, New Delhi; Member, Working committee for Setting Up Clinical Research Unit at AIIMS, New Delhi; Member, Faculty coordination committee for Pulse 2018 and member, AIIMS Institute Day Subcommittee for Cultural Programme.

Dr Harlokesh Narayan Yadav was Chairperson in 3rd International Conferences on Intellectual Property: Prosecution to litigation, Goa College of Pharmacy Goa during 15-16 November 2018; Resource person in 63rd Institute Day Exhibition on Next Generation Health Care on 25-27 September 2018 at AIIMS, New Delhi.

Dr Sudhir Sarangi was Subject Expert for Meeting of expert committee for upgradation of Indian GCP guidelines in line with ICH/WHO GCP guidelines on 2 April 2018, New Delhi; Participated in Refresher Training Course for GLP Inspectors conducted by NGCMA, 16-18 July 2018; was Subject Expert for 1st Meeting of core group and subject review committee for revision of National Formulary of India Pharmacopoeia Commission, MoHFW, Government of India on 23 August 2018 at Ghaziabad.

Dr Sharda S Peshin received IAMLE fellowship in 9th International Conference on Legal Medicine, Medical Negligence and Litigation in Medical Practice and 9th International Conference on current trends in Forensic Sciences, Forensic Medicine and Technology (IAMLE 2018) held on 27 October 2018 at DY Patil Medical College, Hospital and Research Centre, Pune; was Member Expert Panel of the Honorable NGT (National Green Tribunal) Matter for an expert opinion on Site Specific Target Levels/Standard for Remediation of Mercury Contaminated Soil held on 12 September 2018 and 24 September 2018 at Central Pollution Control Board, Delhi.

VISITING SCIENTIST

1. Dr Amol Patil, Assistant Professor, Department of Pharmacology, PGIMER, Chandigarh, visited NPIC on 12 May 2018.

### 9.31. Physical Medicine and Rehabilitation

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<tr>
<td>Sanjay Wadhwa</td>
<td>SL Yadav</td>
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<td>Gita Handa</td>
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<td>Srikumar V</td>
<td>Asem Rangita Chanu</td>
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<tr>
<td>Mrs Smita Das</td>
<td>Mr OP Yadav</td>
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<tr>
<td>Senior Physiotherapist</td>
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<td>Supt Occupational Therapist</td>
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<tr>
<td>Mrs Lily Farhat Parveen</td>
<td>Mr Raman Kumar Singh</td>
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<tr>
<td>Senior Occupational Therapist</td>
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<tr>
<td>Senior Technical Officer</td>
<td>Mr Ajay Babbar</td>
</tr>
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**HIGHLIGHTS**

The department organized the 13th Annual Conference of Indraprastha Association of Rehabilitation Medicine, Delhi PMRC, on 17-18 November 2018, at Gurugram. The event was attended by eminent faculties from Delhi and rest of India who shared their experiences and enriched the knowledge. The department organized awareness talks and brain storming session on the occasion of World Disability Day (3 December 2018) at AIIMS. An advanced Silicone Prosthesis lab has been commenced at the Prosthetics and Orthotics workshop of the department to provide high quality patient care in the area of cosmetic prosthetics. On a project mode, 3D printing of foot orthosis using foot pressure mapping data has been started.

**EDUCATION**

Undergraduate teaching: A set of 8 Seminars for the VIII Semester and one for the VI Semester was undertaken by the department. Twelve post-graduate students are doing MD (PMR). Students of Prosthetics and Orthotics from three Government of India institutions, SVNIRTAR (Cuttack), PDUIPH (Delhi) and NILD (Kolkata) visited the P&O workshop as part of their teaching/training program. Postgraduate and fellowship training for Palliative Care and Onco-Anesthesiology, Pediatric Neurology and Pain Fellows was conducted in the department.
CMEs/Workshops/Symposia/National and International Conferences

13th Annual Conference of Indraprastha Association of Rehabilitation Medicine (Delhi PMRC) on 17-18 November 2018, at Gurugram.

Lectures delivered

U Singh

2. Panelist: Discussion on interesting cases, 13th Annual Conference of Indraprastha Association of Rehabilitation Medicine, 17-18 November 2018, Gurugram

Sanjay Wadhwa

1. Challenges of rehabilitation in India, WHO sponsored ‘Multi-stakeholders’ Meeting, Rehabilitation 2030 in South-East Asia’, 16-17 April 2018, Bengaluru
2. Introduction and background of the guidelines for assessment and certification of specified disabilities, One Day Orientation Programme for MS, Civil Surgeons, CMOs, 26 April 2018, Patna
3. The guidelines for assessment and certification of Locomotor disabilities, One Day Orientation Programme for MS, Civil Surgeons, CMOs, 26 April 2018, Patna
4. The guidelines for assessment and certification of other specified disabilities, One Day Orientation Programme for MS, Civil Surgeons, CMOs, 26 April 2018, Patna
7. Motor accidents and disabilities in India, One Day Orientation Programme for Officers at the Oriental Staff Training College (OSTC), 17 July 2018, Mathura Road, Faridabad
8. Disability certification in view of the new Rights of Persons with Disabilities Act 2016, One Day Orientation Programme for Officers at the Oriental Staff Training College (OSTC), 17 July 2018, Mathura Road, Faridabad
9. ICF—Checklist and WHO-DAS 2.0, 3 Days Basic Training Programme on ICF, 26 July 2018, Mohali
10. Practical using ICF Tools (ICF Checklist and WHO-DAS 2.0), 3 Days Basic Training Programme on ICF, 26 July 2018, Mohali
11. Demonstration of practical uses of ICF coding and checklist as well as conduct of visit to the Department of Psychiatry at GMCH, Sec. 32, Chandigarh
15. Rehabilitation in chronic neurological diseases, Scientific Programme during IAPMRCON2019, 19 January 2019, Mumbai
17. Possible physiatry in PHC for non-communicable diseases, Palliative Care and Elderly Care, Scientific Programme during IAPMRCON 2019, 20 January 2019, Mumbai
18. Keynote address on the introduction and background of the disability evaluation guidelines in India, Workshop on Disability Evaluation and Certification Procedure for Persons with Disability for Implementation of RPwD Act, 2016 in the State of Punjab, 8 February 2019, Faridkot
20. Introduction and background of the disability evaluation guidelines, 3-Days Training Programme on UDID and Disability Matrix, 12-14 February 2019, Guwahati
21. The new guidelines for assessment and certification of specified disabilities, 3-Days Training Programme on UDID and Disability Matrix, 12-14 February 2019, Guwahati

22. Understand the models of disability and social security benefits for PwDs in India, Medical Officers Programme on Occupational and Environmental Health—Training of Trainers, 27 February 2019, Delhi

23. Role of rehabilitation in NCDs and building rehabilitation programme under NPCDCS, 5th PGI-AIIMS International Course on Public Health Approaches to Non-communicable Diseases, 5 March 2019, Chandigarh

SL Yadav

1. Assessment of autonomic dysfunctions in patients with spinal cord injury: A cross sectional study, 12th World Congress of International Society of Physical and Rehabilitation Medicine, 8-12 July 2018, Paris, France

2. Cerebral palsy—Orthotic management, Orthotic Management of Neurological Conditions, 8-9 September 2018, Bhubaneswar


4. Opportunities and networking in PMR, PMR Refresher Course, 21-23 September 2018, Jaipur

5. Mindfulness in physical rehabilitation to help clients with chronic pain, ICM Asia-Pacific 2019, 9-13 February 2019, Auckland, New Zealand

6. Rehabilitation challenges in management of traumatic brain injury in India, 13th World Congress on Brain Injury (IBIA 2019), 13-16 March 2019, Toronto, Canada

Gita Handa

1. Panelist for “Specific design requirements for a spine deformity correction system”, 2nd International Conference on Clinical Spine and Orthopeadic Biomechanics, 14 April 2018, New Delhi

Srikumar V

1. Chronic low back pain: From spine to brain, Pain and Somatosensory Assessment in Humans, 12 April 2018, New Delhi


3. Panelist: Specific design requirements for a spine deformity correction system, 2nd International Conference on Clinical and Orthopedic Biomechanics, 13-15 April 2018, New Delhi


5. Rehabilitation interventions in oropharyngeal cancer, 47th Annual National Conference of Indian Association of Physical Medicine and Rehabilitation, 17-20 January 2019, Mumbai

6. Chronic fatigue syndrome, 47th Annual National Conference of Indian Association of Physical Medicine and Rehabilitation, 17-20 January 2019, Mumbai

Oral papers/posters presented


3. Haneena P, Yadav SL, Singh U, Nehra A, Srikumar V, Chanu AR. A cross sectional study to evaluate the correlation of gross motor function and hand function with intelligence in children with cerebral palsy, 13th Annual Conference of Indraprastha Association of Rehabilitation Medicine, 17-18 November 2018, Gurugram


RESEARCH

Funded projects

Ongoing

1. Development and testing of custom 3D printed foot orthotics using foot images from smartphone for various foot problems, Gita Handa, DBT, 1 year, 2017-19, Rs 12 lakhs

2. Smart dynamic fabric actuator for prolonged standing professionals for management of chronic leg pain, Srikumar V, AIIMS-IIT Delhi Collaborative Research Project, 2 years, 2018-20, Rs 10 lakhs

AIIMS 2018-19 / 410
Departmental projects

**Ongoing**

1. A randomized control trial to compare effect of ultrasound guided corticosteroid injection versus conservative treatment on pain, function and ultrasonographic features of common extensor tendons in patients with lateral epicondylitis
2. A randomised control trial to compare the effect of single dose platelet rich plasma and corticosteroid injection in patients with carpal tunnel syndrome
3. A randomized control trial to compare effect of platelet rich plasma and dextrose prolotherapy in patients of chronic plantar fasciitis
4. A cross sectional study to evaluate the correlation of gross motor, hand function, caregiver reported quality of life with intelligence in children with cerebral palsy
5. A randomized control trial to compare effectiveness of electrical stimulation of foot and oxybutynin in overactive bladder in persons with spinal cord injury
6. PARK-EASE trial: A randomized controlled trial to study the efficacy of exercises in early stage Parkinson’s Disease
7. A cross-sectional study to assess balance impairment and risk of fall in patients with Ankylosing Spondylitis
8. A cross sectional study to observe the prosthetic usage and functional status of upper limb amputees
9. A randomized controlled trial to compare the effect of intra-articular Adalimumab versus intra-articular hyaluronic acid in primary osteoarthritis of the knee
10. A randomized control trial to evaluate the effect of platelet rich plasma in combination with eccentric exercise versus eccentric exercise alone for achilles tendinopathy
11. A cross sectional study to evaluate the burden of care and quality of life in caregivers of persons with traumatic spinal cord injury
12. The International Spinal Cord Society (ISCoS) Database Project

**Completed**

1. A comparative study of the efficacy of a set of conventional therapeutic exercises versus a set of yoga asanas in non-specific chronic low back pain patients presenting in a tertiary health care centre
2. A randomized controlled trial to compare the effect of Zoledronic acid versus a structured exercise programme in primary osteoporosis
3. Ultrasonographic evaluation of radial neuropathy and its correlation with pain and functional outcome before and after a corticosteroid injection in lateral epicondylitis

**Collaborative projects**

**Ongoing**

1. Force myography driven affordable active lower limb prosthesis for resource-limited countries, University of Oregon, IIT Delhi
2. Effect of transcranial magnetic stimulation on pain modulation status in fibromyalgia patients, Department of Physiology, AIIMS, New Delhi
3. Damper control in lower limb prosthesis, Department of Biomedical Engineering, IIT Delhi
4. A study of pain status and motor cortex excitability in chronic low back pain patients: Effect of transcranial magnetic stimulation, Department of Physiology, AIIMS, New Delhi
5. Design, development and validation of ergonomically enhanced surgical instruments, Department of Surgery, AIIMS, New Delhi
6. Electrophysiological analysis of cognitive load during locomotion and balancing and to investigate the improvement in gait and balance in lower limb amputees after using tactile feedback, Department of Biomedical Engineering, AIIMS/IIT Delhi
7. Effect of yoga on pain and corticomotor excitability in chronic low back pain, Department of Physiology, AIIMS, New Delhi
8. Effect of motor imagery on corticomotor excitability and pain status in rheumatoid arthritis, Department of Physiology, AIIMS, New Delhi
9. Evaluation of pulmonary function in ankylosing spondylitis, Department of Physiology, AIIMS, New Delhi
10. Comparing change in disease activity with exercise tolerance in persons with ankylosing spondylitis on adalimumab therapy—An observational pilot study, Department of Rheumatology, AIIMS, New Delhi

11. Randomised control trial to compare the impact of progressive resistive exercise and nutritional interventions in skeletal muscle mass and function in obese patients with sarcopenia, Department of Medicine, AIIMS, New Delhi

PUBLICATIONS

Journals: 8  Abstracts: 3  Chapter in book: 1

PATIENT CARE

New patients
OPD (Physician consultations)  13,900  Prosthetics and Orthotics  3,275
Total New Cases  17,175

Old patients
OPD (Physician consultation)  25,737  Disability Evaluation Clinic  68
Railway Concession Certificates  195  OPD visits (PT Section)  16,460
OPD visits (OT Section)  16,096  OPD visits (MSW)  4,060
OPD visits (P&O Clinic)  7,137  Minor OT procedures  4,634
Total Old Cases  74,387
Grand Total  91,562

Special Clinics of the Department

Ongoing Clinics
1. Musculoskeletal ultrasound guided interventions
2. Custom molded insoles in Foot Clinic
3. Wheelchair prescription and checkout clinic for customized wheelchair delivery as per WHO guidelines
4. Musculo-skeletal laboratory: Computerized evaluation and exercise equipment
5. Foot Lab/Clinic
6. Disability Evaluation Clinic
7. Brace Check Out Clinic: Checking prosthetic and orthotic devices made in our workshop before final delivery to the patients
8. Case Conference: Discussion of long-term rehabilitation patients for goal setting and treatment evaluation
9. Gym Round Clinic: Evaluation of the therapy of the indoor patients admitted under PMR

Community Services

Patient Care: The departmental Faculty and Resident Doctors are periodically involved in Rural Camps in Mathura for the welfare of the persons with disability.

Mass Media: Public Awareness Lectures and TV Health Programmes

Dr Sanjay Wadhwa
1. Total Health Programme on DD News, on 9 December 2018; Topic—Joint Pains
2. Total Health Programme on DD News, on 17 June 2018; Topic—Yoga and disease prevention
3. Awareness Raising on International Day of Persons with Disabilities, on 3 December, 2018 at AIIMS, New Delhi
4. Awareness Raising about Spinal Cord Injuries through Wheelchair Rally, at India Gate, on 2 September, 2018, SCI Day
5. Workshop on Raising Awareness About Injury Prevention from 23 to 25 August 2018 at AIIMS, New Delhi
6. Awareness Raining on Spinal Cord Injuries through a Wheelchair Rally at India Gate on 2 September 2018

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Kanhu Charan Mallik is an active member (Sports secretary) of Residents Doctors Association (RDA). Dr Raktim Swarnakar (Postgraduate student) won first prize in ‘Creative Slogan Writing Competition’, second prize in ‘Creative Essay Writing Competition’ and consolation prize in ‘Poster Designing Competition’ during ‘AIIMS Swachhta Pakhwada’ (1-15 April 2018). He also won the Bindeshwari Sudershan IAPMR Gold Medal for the best oral paper presentation in the 47th Annual National

Professor Sanjay Wadhwa was convener, International Standards Organization, Technical Committee 173, Working Group 12 (ISO/TC173/WG12); Chairman, Sectional Committee (MHD09) of Bureau of Indian Standards (BIS); Declared Elected and Installed as the President of the Indian Association of Physical Medicine and Rehabilitation (IAPMR) during Annual GB Meeting at Mumbai on 19 January 2019 for a 2-year term (2019-2021); Vice-President of the National Academy of Medical Sciences (NAMS) for 3-year term from August 2018 onwards; Member of Governing Council of the National Academy of Medical Sciences (NAMS) for 3-year term from August 2018 onwards; Member, Disability Committee, Medical Council of India; Member, Project Review Committee on Disability, ICMR; Member, Project Review Committee on Geriatrics, ICMR; Drafted, compiled and edited the ‘MCI Guidelines for Admission of Students with Disabilities to UG and PG Medical Courses’, 2019.

Professor SL Yadav was expert at International consensus meeting to prepare treatment Guidelines on Cauda Equina Syndrome in Liverpool, UK on 9 November 2018; Faculty at National Refresher Course at Jaipur from 20 to 22 September 2018; External expert to standing selection committee of JIPMER, Puducherry on 24 September 2018; Delhi University member of Meeting of Committee of Courses of Masters in Prosthetics and Orthotics; Chairperson at 9th International Conference on Legal Medicine at Pune from 27 to 28 October 2018; Chairperson at NEXUS 2018 in the area of Neurology for the benefit of practicing Neurologists, 15-16 September 2018; New Delhi; External Examiner, Work Place based Clinical Assessment for Formative Assessment 2018 for DNB students; External Examiner for MD (PMR), AIIPMR, Mahalaxmi, Mumbai, 24 April 2018; MUHS practical Examiner at AIIPMR, Mumbai on 12 June 2018; Panelist, ICM Asia-Pacific 2019 at Auckland, New Zealand, 9-13 February 2019; Advisor, 13th Annual Conference Delhi PMRCon 2018 at Gurugram on 17-18 November 2018.

Professor Gita Handa was member of Task Force on Bioengineering constituted by Department of Biotechnology, GOI; Expert Committee member for review of Project Proposals at Indian Council of Medical Research; Subject expert for Examinations in PMR conducted by National Board of Examinations; Scientific Committee Chairperson for IPARM Conference 2018 on 17-18 November 2018 at Gurugon; Member Expert Committee for University Grants Commission; External Examiner for MD Exams for KGMU, Lucknow, India; Inspection Committee Member at AIIMS Patna for starting PG (MD) in PMR; Inspection Committee Member of UGC for Inspection at MMU Mullana.

Dr Asem Rangita Chanu was reviewer, Journal of Medical Society; Content Provider from PMR for AIIMS website; Co-ordinating Faculty of PMR department for the AIIMS Institute Day exhibition from 25 to 27 September 2018; Chief Guide in PG Thesis—A Cross Sectional Study to Observe the Prosthetic Usage and Functional Status of Upper Amputees; Faculty in the Induction programme for newly joined ‘Nursing Officers’ on the topic “Biomechanics for Nurses” on 4 August, 18 August and 1 September 2018.

Visiting Scientist

Dr Darren J Player. Lecturer in Musculoskeletal Bioengineering, Division of Surgery and Interventional Science, Faculty of Medical Sciences, University College London, London, United Kingdom (5 March 2019).

9.32. Physiology

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<th>Kishore Kumar Deepak</th>
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<tr>
<td>Hrudananda Mallick</td>
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<td>Suriya Prakash Muthukrishnan (on contract)</td>
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HIGHLIGHTS

The Department of Physiology has been involved in undergraduate and postgraduate teaching in addition to the doctoral programme. The faculty also undertook to train manpower for undergraduate, postgraduate teaching and research techniques in house by holding workshops and symposia at AIIMS and other institutions. A number of extramural and intramural research projects were taken up by the faculty in various areas such as neurophysiology (including autonomic nervous system), cellular and molecular physiology, nutrition, vascular physiology, reproduction, respiration, sleep, cognition, transcranial magnetic stimulation and Yoga. The research outcomes were presented in various national and international scientific forums and published in indexed journals. On the basis of its original research, the department has provided significant support in patient care by utilizing cutting-edge technologies in autonomic and vascular function assessments, pain management, intraoperative monitoring during corrective surgeries, and yogic intervention. Several awards and honors have been received by faculty members and the students of the department in appreciation of their innovative contributions in research and medical education. The department organized workshop for SAARC Nations from 5-7 December 2018 and shared their expertise with the scientists abroad (Photograph 1). The department also organized a Teleconference on 22 February 2019 featuring live interaction with Dr Christopher Mathias which provided a forum for exploring the advances in the field of Autonomic Neurosciences and knowledge sharing among scientific gathering of India and was a grand success (Photograph 2). Two important International events, International Brain Research Organization (IBRO) Asia Pacific Region School (Photograph 3) and Indo-European workshop on Physiology for lifestyle were also held in the department which were academically highly enriching.

Photograph 1: Workshop on Techniques in Physiological Sciences (TIPS 2018) for SAARC Nations: Inaugural function and release of conference booklet by Guest of Honor Professor Balram Bhargava seen in picture are (L to R): Professor KK Deepak, Chief Guest, Professor Balram Bhargava, Chief Patron, Professor Randeep Guleria, Professor HN Mallick and Dr Renu Bhatia.

Photograph 2: Left: Teleconference update: Live interaction with Professor Christopher Mathias on emergence of Autonomic Neuroscience. This live interaction is our endeavour to provide a forum for exploring the advances in the field of Autonomic Neurosciences and knowledge sharing. (L to R): Professor Vishal Bansal, Professor Christopher Mathias and Professor KK Deepak. Right: Participants in teleconference.
Photograph 3: International Brain Research Organization School 2018 for Asia Pacific Region: Inaugural function was presided over by Professor Usha Nayar (Guest of Honor), Professor Randeep Guleria (Chief Guest), Professor KK Deepak (Chairperson), Professor HN Mallick (Organizing Secretary) and Professor S Jain (Organizing Secretary). Delegates and faculty members, Department of Physiology at Inaugural Ceremony of International Brain Research Organization—Asia Pacific Region School.

EDUCATION

1. Undergraduate teaching: Lecture 200 hrs and Practical 240 hrs, UG students: Total number of students: 107

2. Post graduate teaching: Total number of PG students:
   a. MSc students: 11
   b. MD students: 19
   c. PhD scholars: 32

3. Nursing and allied courses: Total number of students: 155

Short Term Training in the Department of Physiology:

a. Two BSc students from Jamia Milia Islamia from 20 February to 20 May 2018
b. One BSc student from Maharishi Dayanand University from 1 June to 31 July 2018
c. One MSc student from TERI school of advanced studies from 20 May to 19 July 2018
d. One MA student from Ambedkar University for 2 months from 1 June to 31 July 2018
e. One Faculty from B.J. Medical College, Gujarat for two weeks from 18 June to 1 July 2018
f. Two BSc students from Maharishi Dayanand University for 2 months from 1 June to 31 July 2018
g. Two BSc students from Fergusson College, Pune for 2 months from 1 May to 30 June 2018
h. Two MSc students from Kurukshetra University from 10 June to 31 July 2018
i. Two Senior Technical Officers from Sri Lanka for 8 days from 11 to 18 March 2018
j. One BSc Student from Maharishi Dayanand University from 18 June to 31 July 2018
k. One Faculty from M.G.M. Medical College, Indore for 1 month from 4 to 15 September 2018
l. One MSc student from Kurukshetra University from 14 June to 30 July 2018
m. One B.Pharma student from Delhi Institute of Pharmaceutical Science and Research from 25 June to 10 July 2018
n. Three B.Pharma students from Delhi Institute of Pharmaceutical Science and Research from 25 June to 24 July 2018
o. One Technical Officer and one Senior Technical Officer from Sri Lanka for 6 days from 3 to 8 September 2018
p. Two Neurosurgeons from Vietnam for one week from 7 to 14 October 2018
q. One MSc student from RUHS College of Medical Sciences, Jaipur from 25 October to 16 November 2018
r. One student from RUHS College of Medical Sciences, Jaipur from 16 to 31 December 2018
s. Three students from Delhi Institute of Pharmaceutical Science and Research from 15 December 2018 to 14 January 2019
t. One student from AIIMS, Bhubneshwar for 10 days from 1 to 10 February 2019
u. One student from Delhi Institute of Pharmaceutical Science and Research from 26 December 2018 to 25 January 2019
v. One student from DPSRU, Government of Delhi for 9 days from 24 December 2018 to 1 January 2019
w. Five Faculty members from VMMC and Safdarjung Hospital for 5 months from 1 January to 31 May 2019
x. One student from Banaras Hindu University from 4 to 9 March 2019
y. One student from Banaras Hindu University from 25 February to 8 March 2019

CMEs/Workshops/Symposia/National and International Conferences

1. Advanced Sleep Technology Course on Establishing a Sleep Laboratory, 7 April 2018, AIIMS, New Delhi
2. Annual Conference of ISSR: India Sleep 2018, 21-23 September 2018, Panaji
3. APPI Young Investigator Development Workshop on Discovering the mystery of sleep, 21 September 2018, Panaji
4. International Brain Research Organization—Asia Pacific Region School on “Neural Plasticity in health and disease” from 21 October to 4 November 2018 at AIIMS, New Delhi
5. Workshop on Humane Health Care, 16 November 2018, AIIMS, New Delhi
7. APPI Young Investigator Development Workshop on Obesity APPICON 2018, 27 November to 1 December 2018, Manipal
8. Workshop on Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
9. Workshop on Autonomic Function Testing during 64th Annual Conference of Association of Physiologists and Pharmacologists of India (APPICON 2018), 27 November to 1 December 2018, Manipal
10. Indo-European Workshop Next Generation Physiology for Healthy Lifestyle, 31 January-1 February 2019, AIIMS, New Delhi
11. Workshop on Teleconference update: Live interaction with Professor Christopher Mathias on emergence of Autonomic Neuroscience, 22 February 2019, New Delhi
12. Workshop on Mono and polysynaptic reflexes and evoked potentials in rats, IBRO-APRC School, 22-23 October 2018, New Delhi
13. Workshop on demonstration and hands-on Microdialysis during IBRO-APRC School, 26 October 2018, New Delhi
15. Workshop on Translational models of feeding behaviour, Pain Assessment and Microdialysis during Indo-European workshop on Next Generation Physiology for Healthy Lifestyle held on 31 January and 1 February 2019, New Delhi
16. Workshop on Pain and Somatosensory assessment in humans, 12 April 2018, New Delhi
17. Preconference workshop on Transcranial magnetic stimulation at 1st National Conference of Academy of Physiology, NATCON PHYSIOLOGY, 8-10 February 2018, Nagpur
18. Workshop on recording and analysis of Quantitative EEG in Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
19. Workshop on assessment of various domains of cognitive functions in Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
20. Workshop on pain assessment in humans and animals, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
21. Workshop on transcranial magnetic stimulation, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
22. Workshop on whole night polysomnography, Techniques in Physiological Sciences, 5-7 December 2018, New Delhi
23. Workshop on recording of bereitschafts potentials, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
24. Workshop on pulmonary function testing by spirometry and impulse oscillometry, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
25. Workshop on methodological basis of expression microarray to functional genomics, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
26. Symposium on Yoga and Medicine, 28 September 2018, Gujarat
27. Workshop on Yoga and Meditation: Yoganidra with Dr Bhalendu S Vaishanav (Professor of Medicine, Karamsad) on 26 September 2018, Manipal
28. Workshop on non-invasive Neurophysiology and Neuromodulation approaches—Role of Clinical Physiologists on 28 November 2018, Manipal
29. Workshop on Yoga-meditation, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
30. First chapter of the ICMR Workshop Series on Physiology Education Techniques 2018: An IUPS initiative, 3-5 November 2018, Jodhpur
32. Third chapter of the ICMR Workshop Series on Physiology Education Techniques 2018: An IUPS initiative, 15-17 November 2018, Kozhikode
33. Workshop on Pain and Somatosensory Assessment, 12 April 2018, New Delhi
34. Preconference—Workshop on Non-invasive Neurophysiology and Neuromodulation approaches—Role of Clinical Physiologists was held on 28 November 2018, Manipal

Lectures delivered

Kishore Kumar Deepak

1. Life Style Related Diseases in Asia: Underlying Mechanisms, Functions and Behavioural Transitions, 9th Federation of the Asian and Oceanian Physiological Society Congress (FAOPS2019), 28-31 March 2019, Kobe, Japan
2. Effect of Yoga Based Cardiac Rehabilitation on Vascular and endothelial functions in MI patients, International conference on “Role of Meditation for Prevention and Treatment of Cardiovascular Diseases”, 9-10 March 2019, Rishikesh
5. Lower Body Negative Pressure for Preventing Vascular and Autonomic Dysfunction, Indo-European Workshop, Next Generation Physiology for Healthy Lifestyle, 30-31 January 2019, New Delhi
6. Yogic breathing to improve Autonomic Physiology on earth and in space, 31st Dr AC Duarte Monteiro Oration at Seth GS Medical College and KEM Hospital, 12 December 2018, Mumbai
7. Stress: Its not in your head, but in your nervous system; the stress response and ANS, Physiological Update 2018, 15 November 2018, New Delhi
8. The Pros and Cons of pursuing Clinical Physiology, 64th Annual Conference of Association of Physiologists and Pharmacologists of India (APPICON 2018), 27 November to 1 December 2018, Manipal
9. Autonomic regulation of obesity: How to do research, 64th Annual Conference of Association of Physiologists and Pharmacologists of India (APPICON 2018), 28 November 2018, Manipal
10. Integrative Physiology: Space to Sea, ATPCON2018, ESIC Medical College, 16 September 2018, Hyderabad
12. Space Physiology at AIIMS, Joint meeting of ISRO and IISc, Space Technology Cell, at IISc, Bengaluru, 27 October 2018, Bangalore
13. Importance of Medical Education in research set up, Translational Health Science and Technology Institute, 7 August 2018, Faridabad
14. Evolution of PG training of Physiology in India and current perspectives, CME cum Workshop on Reforming Physiology Curriculum: A case study for other Medical Disciplines, 28 July 2018, Rishikesh

Hrudananda Mallick

1. Molecular Basis of sleep, UP-UK APPICON 2018, 13 April 2018, Bareilly
2. Glutamate mechanism in the gut and the brain, 8th International Conference of Asian Society of Toxicology (ASIATOX 2018), 17-20 June 2018, Thailand
3. Electrophysiological Characterisation of Yoga Nidra (Yogic sleep), AFC, ASRS, JSSR Joint Conference, 11-15 July 2018, Sapporo, Japan
4. Physiology of sleep and sleep physiology in Sleep Medicine, Workshop on Physiology of Sleep and Clinical Application of Sleep Laboratory, 29 July 2018, Moinabad
5. Introduction to sleep medicine and physiology of sleep, Workshop on Sleep Medicine, 12 August 2018, Andhra Pradesh
6. Introduction to sleep and sleep disorders, India Sleep 2018, Annual Conference of Indian Society for Sleep Research, 21-23 September 2018, Panaji
9. Epidemiology of Sleep: What we know? 4th ICSD Conference on Sleep disorders, 14 October 2018, Lucknow
10. Physiological fate of dietary glutamate, 19th World Congress of Food Science and Technology, 23-27 October 2018, Maharashtra
11. PG Physiology practical at cross roads, APPICON 2018, 27 November to 1 December 2018, Karnataka
12. Setting up of the adult sleep lab, MEDINSPIRE 2019, 13 February 2019, Navi Mumbai

Debabrata Ghosh
1. Foreword on the ICMR Workshop Series, Physiology Education Techniques 2018: IUPS Initiative, 3-5 November 2018, Jodhpur
2. Foreword on the ICMR Workshop Series, Physiology Education Techniques 2018: IUPS Initiative, 10-12 November 2018, Shillong
3. Foreword on the ICMR Workshop Series, Physiology Education Techniques 2018: IUPS Initiative, 15-17 November 2018, Kozhikode

Kanwal Preet Kochhar
1. Tools and Techniques in Cognitive Neuroscience with special reference to neuro-developmental disorders in paediatric population, NEUROPEDICON 2018, 18th National Conference of IAP Neurology Chapter IAP New Delhi, 7-9 September 2018, New Delhi
2. Impact of eating disorders, Diet and Exercise on Reproductive Health, Global Conference on Reproductive medicine, 22-24 February 2019, New Delhi
3. Systems approach to educational process, Basic Course workshop in Medical Education, 6-7 August 2018, Faridabad
4. Quality improvement in medical education, Basic Course workshop in Medical Education, 6-7 August 2018, Faridabad
5. De-stigmatization and academic accommodation in students with mental health problems, 8th International Conference and Workshop on Schizophrenia, 29 August-1 September 2018, Chennai

Ratna Sharma
3. Stress management, Nursing Administrator Empowerment Programme, June-July 2018, New Delhi
4. Stress Management and Conflict Management, Senior Nursing Administrator’s Empowerment Programme, August-December 2018, New Delhi
5. Stress management for retiring staff, Orientation Programme for Retiring Staff of AIIMS, 23-24 January 2019, New Delhi

Nalin Mehta
1. Functional Aspects of Multicentric Research, Common Ethics Review of Low Risk Multicentre Research, 10 May 2018, Bangalore
2. National Ethical Guidelines for Biomedical and Health Research involving Human Participants, Two day training programme on Good Clinical Practices, Current Regulatory and Ethical Requirements for conducting Clinical trials/Research in India including Schedule Y, 5-6 June 2018
3. National Ethical Guidelines for Biomedical Research involving Children, 2 day training programme on Good Clinical Practices, Current Regulatory and Ethical Requirements for conducting Clinical Trials/Research in India including Schedule Y, 5-6 June 2018, Imphal
4. Role and responsibility of investigator, sponsor, rights of the research participants, 2 day workshop on ethics and GCP for members of ethics committees of various tertiary hospitals of the Armed Forces, 20-21 July 2018, New Delhi
5. Interactive session: Reviewing a research study—Full board, Expedited review, waiver of informed consent, exempt from review with case studies, 2 day workshop on Ethics and GCP for members of Ethics committees of various tertiary hospitals of the Armed Forces, 20-21 July 2018, New Delhi
6. Compensation and Payment for Participations, 2 day workshop on ethics and GCP for members of ethics committees of various tertiary hospitals of the Armed Forces, 20-21 July 2018, New Delhi
7. Phases of Clinical Trials Including Vaccine Trials, Devices: Ethical considerations with case studies, 2 day workshop on ethics and GCP for members of ethics committees of various tertiary hospitals of the Armed Forces, 20-21 July 2018, New Delhi
8. Panel discussion: Sharing experiences while streamlining the ethics committees, 2 day workshop on ethics and GCP for members of ethics committees of various tertiary hospitals of the Armed Forces, 20-21 July 2018, New Delhi
9. Igniting Young Minds to Research, I Annual NEIGRIHMS UG CON, 17-19 August 2018, Shillong
10. Informed consent and assent, 3-day training programme on “Health Management Research Ethics for Protection of Human Participants” for Ethics Committee members and Faculty of Colleges in Rajasthan, 27-29 September 2018, Jaipur
11. Benefit—Risk assessment, 3-day training programme on “Health Management Research Ethics for Protection of Human Participants” for Ethics Committee members and Faculty of Colleges in Rajasthan, 27-29 September 2018, Jaipur
12. Benefit—Risk assessment, 3-day training programme on “Health Management Research Ethics for Protection of Human Participants” for Ethics Committee members and Faculty of Colleges in Rajasthan, 27-29 September 2018, Jaipur
13. Ethical Issues in Biomedical Research, 3-day training programme on “Health Management Research Ethics for Protection of Human Participants” for Ethics Committee members and Faculty of Colleges in Rajasthan, 27-29 September 2018, Jaipur
14. Panel discussion: Protection of human research participants, 3-day training programme on Health Management Research Ethics for Protection of Human Participants for Ethics Committee members and Faculty of Colleges in Rajasthan, 27-29 September 2018, Jaipur
15. Constructing effective MCQs, Joint Workshop on Designing Multiple Choice Questions (MCQs)—PGIMER and GMC, 2-3 November 2018, Chandigarh
16. Analyzing MCQ items and remedial measures, Joint Workshop on Designing Multiple Choice Questions (MCQs)—PGIMER and GMC, 2-3 November 2018, Chandigarh
17. Overview of Assessment, Preconference CME of 66th Annual Conference of the Anatomical Society of India (NATCON 66), 11 November 2018, Rishikesh
18. Validation of MCQs and item analysis, Preconference CME of 66th Annual Conference of the Anatomical Society of India (NATCON 66), 11 November 2018, Rishikesh
19. Roles and Responsibilities of Ethics Committees, 3rd Capacity Building Workshop for Ethics Committees, 26 November 2018, Rohtak
20. Vulnerable populations, 3rd Capacity Building Workshop for Ethics Committees, 26 November 2018, Rohtak
21. National ethical guidelines for biomedical and health research involving human participants 2017 (ICMR), 124th Programme on ‘Good Clinical Practice, Current regulatory and ethical requirements for conducting clinical trials/research in India’, 4-5 December 2018, Faridabad
22. Informed consent and assent requirements, Workshop on Ethical Guidance for Biomedical Research, 17-18 January 2019, Pune
23. Ethical guidelines for research in other Vulnerable groups, Workshop on Ethical Guidance for Biomedical Research, 17-18 January 2019, Pune

Suman Jain

1. Transcranial magnetic stimulation: A non-invasive strategy to understand neural excitability and plasticity, IBRO Neuroscience School, 8-12 May 2018, Nepal
3. Introduction to monosynaptic, polysynaptic reflexes and evoked potentials in animals, International Brain Research Organization—Asia Pacific Region School, 22 October 2018, Delhi
4. Non-invasive brain stimulation by magnetic fields in animal models, International Brain Research Organization—Asia Pacific Region School, 27 October 2018, Delhi


6. Objective assessment of pain in animals and humans, TIPS 2018, 6-7 December 2018, Delhi

7. Therapeutic Potential of Nanoparticles in Parkinson’s Disease, Research Advisory Committee Meeting, 18 December 2018, Ahmedabad

8. Translational models of feeding behaviour, Pain Assessment and Microdialysis, Indo-European Workshop Next Generation Physiology for Healthy Lifestyle, 31 January-1 February 2019, Delhi

9. New therapeutic strategy for Parkinson’s Disease: Transcranial magnetic stimulation and nanotechnology, Recent advances in Parkinson’s Disease, 16 February 2019, Delhi

10. Effect of sound enriched environment on brain development, Towards a sustainable environment, 12 March 2019, Delhi

11. Nanotechnology and magnetic field stimulation for recovery in spinal cord injury, South Asian Biotechnology Conference, 14 March 2019, Delhi

Ashok Kumar Jaryal

1. Dr BB Dixit Oration on Clinical Physiology: An ecosystem for translational research, 42nd Annual Conference of the Research Society of the BJ Medical College and Sasoon General Hospitals, 22 February 2019, Pune

2. Intraoperative Neurophysiology, NATCON Physiology - 2019, National Conference of Academy of Physiology, 9 February 2019, Nagpur


4. Autonomic Modulation in Heart Failure, Symposium on Basic Science: Heart Failure during the Indian Heart Failure Summit 2018, 21 April 2018, New Delhi

5. Intraoperative Neuromonitoring in Epilepsy Surgery, 15th National EEG Workshop and Master-class for Epilepsy Surgery, 23 November 2018, Varanasi

6. Item analysis, Workshop on Designing Effective MCQs, 2 November 2018, Chandigarh

7. Literature review, CME on Research Methodology, 14 December 2018, New Delhi

8. Intraoperative Neuromonitoring: Principles and practice, CME on Intraoperative Neurophysiology, 15 November 2018, Bhopal

9. Scientific Writing, National Skill Development and Hands-on-Training Programme on Quality Control of Biologicals, 13 September 2018, Noida

10. Somatosensory Evoked Potential, Workshop on Pain and Somatosensory Assessment in Humans, 12 April 2018, New Delhi


13. Clinical Physiology as an Emerging Field: How to legitimize and integrate with clinicians, CME on Reforming Physiology Curriculum: A case study for other Medical Disciplines, 28 July 2018, Rishikesh


Raj Kumar Yadav

1. Evidence-based mind, medicine and meditation, ASSOPICON 2018, 28 September 2018, Karamsad, Anand


3. Research updates on Mind-Body-Medicine, International CME cum Workshop on recent updates in Mind, Body and Medicine, 20 November 2018, Greater Noida
4. Health management for a Judicial Officer/Judge, Training module for newly appointed officers of Delhi Judicial Services, 13 February 2019, New Delhi
5. Wellness in our busy life style and workplace, British Council Alumni Conference, 9 March 2019, New Delhi

Anjana Talwar
1. Exhaled breath nitric oxide and sputum evaluation for inflammatory cells, School Course of Severe Asthma, 18 August 2018, Noida
2. Pulmonary function testing by spirometry and impulse oscillometry, TIPS-2018, 6-7 December 2018, New Delhi

Asmita Patil
1. Health and hygiene, health and wellness workshop, 17 July 2018, New Delhi
2. Adolescence and puberty, health and wellness workshop, 16 October 2018, New Delhi
3. Application of expression microarray in research, Techniques in Physiological Sciences for SAARC Nations (TIPS - 2018), 6-7 December 2018, New Delhi
4. Fostering empathy in healthcare training, developing psychosocial and interpersonal skills, 16 November 2018, New Delhi
5. Physiology in genomic and post-genomic era, Indo-European Workshop on Next Generation Physiology for Healthy Lifestyle, 31 January 2019, New Delhi
6. Assessment of knowledge-improving essay questions and short answer questions, Basic course workshop in medical and health professionals, 12 March 2019, New Delhi
7. Giving effective feedback-principles, Basic course workshop in medical and health professionals, 13 March 2019, New Delhi
8. Framing objectives-competencies, Basic course workshop in medical and health professionals, 7 August 2018, Faridabad

Renu Bhatia
2. Transcranial magnetic stimulation for Pain management, Workshop on Techniques in Physiological Sciences for SAARC nations 2018, 6 December 2018, New Delhi
3. Physiological perspectives in Chronic Pain relief by repetitive Transcranial Magnetic Stimulation, CME on Physiological perspectives in Chronic Pain Relief, 20 May 2018, New Delhi
4. Subjective and objective assessment of Pain in humans, Workshop on Pain and Somatosensory Assessment in Humans, 12 April 2018, New Delhi
5. TMS—Physiological perspective in pain modulation, 2nd National CME on Neuromodulation: Focus on neuropsychiatry and behavioral neurology, 13 May 2018, New Delhi
6. Role of Transcranial magnetic stimulation in pain management: Chronic low back pain, VII International Conference of Physical Therapy, 22 December 2018, New Delhi
8. Transcranial magnetic stimulation, 1st National Conference by Academy of Physiology NATCON 2019, 8-10 February 2019, Nagpur

Simran Kaur
1. Introduction to Cognitive Function Tests, Workshop on Techniques in Physiological Sciences for SAARC Nations 2018, 5-7 December 2018, New Delhi
3. Introduction to microteaching, Basic course workshop in medical and health professionals, 11 March 2019, New Delhi
4. Assessment of clinical and practical skills, Basic course workshop in medical and health professionals, 13 March 2019, New Delhi

Prashant Tulsidas Tayade
1. Introduction to QEEG, Workshop on Techniques in Physiological Sciences for SAARC Nations 2018, 5-7 December 2018, New Delhi
3. QEEG: An approach towards Neurological disorders, IBRO-APRC Associate school on “Neurological and neuromuscular disorders: An insight into its approach and neurodiagnostic techniques”, 10-14 March 2019, Dharan, Nepal

Dinu Santha Chandran
1. Heart rate variability, Methodology and clinical applications, 5th Annual National Conference of Association of Physiologists of India, 26 September 2018, Karamsad
2. Assessment of cardiovascular autonomic functions, IBRO-APRC School, 24 October 2018, New Delhi
3. Introduction to case based learning, Creating a learning environment to fulfill the aims of a competency based curriculum, ICMR Workshop series on Physiology Education Techniques 2018: IUPS initiative, 3-5 November 2018, Jodhpur
4. Introduction to case based learning, Creating a learning environment to fulfill the aims of a competency based curriculum, ICMR Workshop series on Physiology Education Techniques 2018: IUPS initiative, 10-12 November 2018, Shillong
5. Introduction to case based learning, Creating a learning environment to fulfill the aims of a competency based curriculum, ICMR Workshop Series on Physiology Education Techniques 2018: IUPS initiative, 15-18 November 2018, Kozhikode
7. Assessment of Heart rate variability, 4th Techniques in Physiological Sciences (TIPS) workshop for SAARC Nations, 5-7 December 2018, New Delhi

Nasreen Akhtar
1. Plagiarism, How to write a manuscript, 2 May 2018, New Delhi
2. Active learning, Basic course workshop in Medical Education, 7 August 2018, Faridabad
3. Problem Based Learning (Small Group Learning), Basic Course workshop in Medical Education, 7 August 2018, Faridabad
4. Introduction to Polysomnography, International Brain Research Organization—Asia Pacific Region School 2018, 26 October 2018, New Delhi
5. Principles of Polysomnography, Techniques in Physiological Sciences for SAARC Nations, 6 December 2018, New Delhi
7. Principles of Active Learning, Basic Medical Education, 12 March 2019, New Delhi

Akanksha
1. Intraoperative Neurophysiological Monitoring, Indo-European workshop: Next generation physiology for healthy lifestyle, 31 January-1 February 2019, New Delhi
2. Intraoperative Neurophysiology in supratentorial and skull base surgeries, Workshop on “Intraoperative neurophysiological monitoring”, 19 January 2019, Patna
3. Intraoperative neuromonitoring, Asian Australasian Society of Neurological Surgeons (AASNS)—Neurotrauma meeting: Conference and workshop, 18 November 2018, Chandigarh
5. Intraoperative neurophysiology, Pre-conference workshop, Neuroanaesthesia Update 2018, 2 November 2018, New Delhi

Ritesh Netam

1. Effect of Yoga based life style intervention on risk factors affecting reproductive health, Global Conference on Reproductive Health, 24 February 2019, New Delhi
2. Intra Operative Neurophysiological Monitoring for spinal fixation and tumor, Medical Education, 2 February 2019, Rishikesh
3. High resolution Manometry, 1st National Conference by Academy of Physiology NATCON 2019, 9 February 2019, Nagpur
6. Yoga and Medicine, ASSOPICON 2018, 2 September 2018, Gujarat

Geetanjali Bade

1. Exhaled breath Nitric Oxide and sputum evaluation for inflammatory cells, School course of severe asthma, 18 August 2018, Noida
2. Pulmonary function testing by spirometry and impulse oscillometry, Techniques in physiological Sciences for SAARC Nations 2018, 6-7 December 2018, New Delhi
4. Clinical exercise testing, 1st National Conference by Academy of Physiology NATCON 2019, 8 February 2019, Nagpur

Suriya Prakash Muthukrishnan

1. Source analysis, Techniques in Physiological Sciences for SAARC Nations 2018, 5-7 December 2018, New Delhi
3. Flipped Classroom, ICMR Workshop series on Physiology Education Techniques 2018: IUPS initiative, 3-5 November 2018, Jodhpur

Oral papers/posters presented

1. Ahmad A, Muthukrishnan SP, Kaur S, Tayade P, Chakrabarty B, Gulati S, Sharma R, Peak alpha frequency of children with ASD is similar to age-matched controls at rest, APPICON 2018, 28 November-1 December 2018, Udupi


10. Christa SE, Jaryal AK, Yadav RK, Roy A, Chandran DS, Deepak KK, Effects of yoga based cardiac rehabilitation on vascular and endothelial function in patients post myocardial infarction — A randomized controlled trial, Experimental Biology (EB) 2018, 21-27 April 2018, San Diego, USA


19. Leon C, Akhtar N, Mallick HN, Effect of L-glutamate microinjection in the lateral septum on sleep in rats, 9th meeting of Asian Sleep Research Society, 11-13 July 2018, Sopporo, Japan


38. Shivangi, Yadav K, Chandran DS, Jaryal AK, Mallick HN, Deepak KK, Dynamic cerebral autoregulation during Head down tilt, APPICON 2018, 27 November-1 December 2018, Manipal
45. Tamuli D, Faruq M, Kumaran SS, Jaryal AK, Srivastava AK, Deepak KK, Subcortical brain areas correlate genetic characteristics in spinocerebellar ataxia type 2 patients, International Association of Parkinsonism and Related Disorders, IAPRD 2018, 19-22 August 2018, Lyon, France
51. Tiwari VK, Nanda S, Kumar U, Bhatia R, Effect of rTMS on corticomotor excitability in fibromyalgia, 38th Annual Scientific Meeting of the Australasian Neuroscience Society 2019, 3-6 December 2018, Brisbane, Australia


54. Vishwakarma LC, Akhtar N, Mallick HN, Effecting sleep deprivation hypothalamus, cortical and body temperature in rats, 9th meeting of Asian Sleep Research Society, 11-13 July 2018, Sopporo, Japan

55. Yadav K, Shivangi, Chandran DS, Akanksha, Jaryal AK, Coshic P, Deepak KK, Change in forearm vascular resistance during non-hypotensive hypovolema; Role of low pressure baroreceptors, APPICON 2018, 27 November-1 December 2018, Manipal


RESEARCH
Funded projects

Ongoing

1. Acute effects of slow breathing on cardiovascular variability during head up tilt, head down tilt and lower body negative pressure in naïve healthy subjects and trained yoga practitioners, KK Deepak, AYUSH, 3 years, 2016-2019, Rs 66.75 lakhs

2. Transcriptomic landscaping for endometriosis from Genome-Wide Analysis (GWA) of expression arrays, Debabrata Ghosh, DST, 3 years, 2015-2018, Rs 47.37 lakhs

3. Molecular basis of estrogenism in endometriosis, Debabrata Ghosh, DST, 3 years, 2016-2019, Rs 49.72 lakhs

4. EEG microstates and phase synchrony correlates of cognitive deficits in Parkinson’s Disease, Ratna Sharma, ICMR, 3 years, 2016-2019, Rs 17.44 lakhs

5. Efficacy of a Yoga-meditation based lifestyle intervention in patients with obesity and major depressive disorder: A randomized controlled trial, Yadav RK, DST, 3 years, 2018-2021, Rs 79 lakhs

6. Immunophenotyping and functional characterisation of peripheral and in-vitro induced T regulatory cells: Putative role in pathogenesis of COPD, Anjana Talwar, AIIMS, New Delhi, 2 years, 2018-2020, Rs 20 lakhs

7. Study the effects of exposure to diesel, biodiesel and biodiesel blend fuel-engine exhaust on testicular morphology and spermatogenesis in male wistar rats, Asmita Patil, AIIMS-IIT, New Delhi, 2 years, 2018-2020, Rs 10 lakhs

8. Effect of Yoga on Pain status and corticomotor excitability in chronic low back pain patients, Renu Bhatia, DST SATYAM, 3 years, 2017-2020, Rs 22.62 lakhs

9. QEEG based neural correlates and microstates of attention and interference in ADHD: An endophenotypic marker, Simran Kaur, CSRI, DST, 1 year, 2017-2018, Rs 11.96 lakhs

10. Study of cortical sources and brain iron levels during rest and visuospatial working memory in attention deficit hyperactive disorder, Simran Kaur, DHR, 1 year 6 months, 2017-2019, Rs 11.54 lakhs

11. QEEG based neural correlates of perceptual dominance, Simran Kaur, AIIMS, New Delhi, 2 years, 2017-2018, Rs 6.74 lakhs

12. Study of EEG microstates in Om chanting, Prashant Tayade, AIIMS, New Delhi, 1 year, 2018-2019, Rs 4.63 lakhs

13. Continuous Noninvasive Blood Pressure Waveform Measuring Device for Cardiovascular Health, Dinu S Chandran, Biotechnology Industry Research Assistance Council (BIRAC), 1.5 years, 2018-2019, Rs 5.88 lakhs

14. To study the relationship between resting retrograde shear and atherogenic profile in peripheral, central and coronary arteries in patients of myocardial infarction, Dinu S Chandran, ICMR, 3 years, 2018-2020, Rs 10.68 lakhs

15. Development and validation of peripheral arterial applanation tonometer to derive altered shear profile in conduit arteries, Dinu S Chandran, AIIMS, 1 year, 2018-2019, Rs 4.50 lakhs
16. Characterization of thermosensitive neurons of preoptic area, Nasreen Akhtar, AIIMS, 2 years, 2018-2020, Rs 9.97 lakhs
17. Neurohormonal response to mild haemorrhage using the model of blood donation, Akanksha, AIIMS, 2 years, 2018-2020, Rs 4.5 lakhs
18. Comparison of inflammatory and oxidative stress markers in exhaled breath condensates of smoker and biomass smoke exposed COPD, Geetanjali Bade, AIIMS, 2 years, 2017-2019, Rs 8.89 lakhs
19. Effect of hypothalamic inflammation on glucose sensing neurons in Arcuate Nucleus in high fat diet induced obesity rat model, Ritesh Netam, AIIMS, 1 year, 2017-2018, Rs 5 lakhs
20. A novel combinatorial approach for neuroregeneration in an in-vivo spinal cord injured Rat Model: Neurotrophic factors coated iron oxide nanoparticles impregnated in a biocompatible hydrogel system, Suman Jain, DST, 3 years, 2017-2020, Rs 29.83 lakhs

Completed

1. Efficacy of Yoga as an adjunct therapy to modify fatigability and stress in breast cancer patients: A randomized controlled trial, Yadav RK, AIIMS, 2 years, 2016-2018, Rs 5 lakhs
2. Effect of Transcranial Magnetic Stimulation on pain modulation in trigeminal neuralgia patients, Renu Bhatia, AIIMS, New Delhi, 1 year, 2017-2018, Rs 4 lakhs
3. Study of EEG microstates and resting state networks in relaxed wakefulness, Prashant Tayade, AIIMS, 2 years, 2016-2018, Rs 9.9 lakhs
4. To study the relationship between components of renin angiotensin aldosterone system and vascular functions following angiotensin converting enzyme inhibition in type 2 diabetes patients with newly diagnosed hypertension, Dinu S Chandran, AIIMS, 2 years, 2016-2018, Rs 9.2 lakhs
5. Effect of endocannabinoid at the medial septum on sleep wakefulness, Nasreen Akhtar, AIIMS, 1 year, 2016-2018, Rs 4.2 lakhs
6. Cardio-respiratory and hormonal responses to oscillatory lower body negative pressure in healthy subject, Akanksha, AIIMS, 1 year, 2017-2018, Rs 4.6 lakhs

Departmental projects

Ongoing

1. A morphological and functional study on intracerebroventricular streptozotocin induced Rat model of Alzheimer’s Disease: Effect of magnetic field stimulation
2. A neoplastic potential of endometrial stromal cells in endometriosis
3. A study of cortical connectivity and EEG sources in Autism spectrum disorder
4. A study of endothelial function and gene expression in healthy individuals, and their correlation with various somatotype classifications
5. A study of offset analgesia in Trigeminal Neuralgia
6. A study of pain status and corticomotor excitability in chronic low back pain patients: Effect of transcranial magnetic stimulation
7. A study of transcriptomic landscape of ovarian endometriosis
8. Acute cardio-autonomic responses to graded head down tilt in long term Sirsasana Yoga practitioners
9. Acute effects of slow breathing on cardiovascular variability during head-up tilt, head down tilt and lower body negative pressure in naïve healthy subjects and trained yoga practitioners (PhD, as co-guide)
10. Brain Computer Interface based on EEG Data of Motor Imagery
11. Comparative study of Yoga and Knee strengthening exercises on Osteoarthritis Knee: A randomized controlled trial
12. Cortical reorganization in complete spinal cord injured Rats: Effect of superparamagnetic nanoparticles and low intensity magnetic field exposure
13. Cortical sources of increasing the visuo-spatial complexity in Hindi language: A QEEG study
14. Default mode network of addictive disorders: A quantitative EEG study
15. Effect of Angiotensin converting Enzyme inhibitor on autonomic vascular and endothelial function in diabetics with newly diagnosed hypertensive
16. Effect of deep hypothermia on nerve conduction in humans
17. Effect of graded lower body positive pressure on dynamic cerebral autoregulation
18. Effect of physiological challenges on regional brain temperature in Rats
19. Effect of short-term Yoga-based lifestyle intervention on stress, airway resistance and inflammation in bronchial asthma patients: A randomized controlled trial
20. Effect of sympatho-inhibitory manoeuvres on resting retrograde shear in brachial artery of middle aged and elderly human subjects
21. Effect of Vitamin D supplementation on pancreatic beta cell functions in obese Indian subjects: A randomized controlled trial
22. Effects of short-term Yoga-based lifestyle intervention on Hypothyroidism: A randomized controlled trial
23. Endometrial telomerase reverse transcriptase protein expression in ovarian endometriosis
24. Evaluation of autonomic function in different types of achalasia patients diagnosed by high resolution manometry
25. Evaluation of autonomic tone, vascular and endothelial function in myocardial infarction patients undergoing Yoga based cardiac rehabilitation
26. Genomic expression and protein profile correlates of peripheral blood mononuclear cells in obesity after Yoga-based lifestyle intervention
27. Hemodynamic correlates of retrograde shear augmentation in brachial artery by Lower Body Negative Pressure (LBNP)
28. Molecular basis of cationic anti-microbial peptide action on Human Placental Cytotrophoblast Cells
29. Molecular basis of estrogenism in endometriosis
30. Muscle regeneration in complete Spinal Cord Injury: Effect of Iron Oxide Nanoparticle Implantation along with Magnetic Field exposure in Rats
31. Neural correlates of cognitive performance in Glaucoma: A quantitative EEG study
32. Neural processing of congruency and affective valence during binocular rivalry: A QEEG study
33. Neuromuscular changes in sleep and sleep deprivation
34. Neuroregeneration following implantation of Iron Oxide Nanoparticle along with magnetic field exposure in spinal cord injured Rats
35. Polysomnographic studies of the effect of pranayamas on various physiological functions
36. QEEG based neural correlates and microstates of attention and interference in ADHD: An endophenotypic marker
37. Quantitative EEG correlates of emotion induced changes in cognitive performance in healthy volunteers
38. Quantitative EEG correlates of visuo-spatial working memory in Schizophrenia
39. Role of mediodorsal thalamic nuclei in sleep
40. Role of the lateral septal nuclei in sleep in Rats
41. Study of vascular mechanisms underlying augmentation of brachial artery retrograde shear in response to graded cuff pressure over forearm
42. The effect of motor imagery on pain status and corticomotor excitability in rheumatoid arthritis patients
43. To study flow mediated slowing of pulse wave velocity during reactive hyperemia as a measure of endothelial function
44. To study radial artery low flow mediated constriction in response to shear modulation by graded supra-systolic occlusion
45. To study the mechanism of altered spontaneous baroreflex sensitivity during blood donation
46. To study the role of vascular function and pain sensitivity in post myocardial patients
47. To study the therapeutic effect of superparamagnetic iron oxide nanoparticles implantation and magnetic field stimulation on motor, cognitive in a 6-OHDA rat model of Parkinson’s Disease
48. To study the vascular mechanisms contributing to augmentation of brachial artery retrograde shear in response to graded cuff pressure over forearm
49. Understanding the pathophysiology of endometriosis by protein profiling and its correlation with stress

Completed
1. A study of conditioned pain modulation in trigeminal neuralgia patients
2. An in-vitro study of neoplastic potential of endometrial stromal cells in endometriosis
3. Assessment of peripheral arterial compliance during graded lower body negative pressure
4. Comparison of D wave and m-MEP based intraoperative neuromonitoring in spinal cord surgeries
5. Comparison of monopolar and bipolar stimulation for cortical motor mapping in Neurosurgery
6. EEG microstates of perceptual reversals of emotional stimuli in schizophrenia during binocular rivalry
7. Effect of repetitive transcranial magnetic stimulation on pain status, thermal sensitivity and motor activity in myofacial pain dysfunction syndrome
8. Effect of short-term Yoga-based lifestyle intervention on stress, airway resistance and inflammation in bronchial asthma patients: A randomized controlled trial
9. Effect of transcranial magnetic stimulation on pain status modulation in fibromyalgia patients
10. Low Flow Mediated Constriction in brachial and radial arteries and its comparison in dominant and non-dominant arms after correcting for the shear rate
11. Quantitative EEG correlates of ‘OM’ chanting
12. Role of neuro-navigation based transcranial magnetic stimulation on quantitative sensory testing and corticomotor excitability in chronic migraine patients
13. Study of QEEG Correlates of Visuospatial complexity in Hindi Language
14. The effect of neuronavigation-based rTMS therapy on corticomotor excitability and cognitive functions in fibromyalgia patients
15. To study the baroreflex contribution to Respiratory Sinus Arrhythmia

**Collaborative projects**

**Ongoing**

1. A cross sectional study on Autonomic Function and Cortical Pain perception in Fibromyalgia, PMR
2. A cross sectional study to assess the severity of chronic pruritis and its effect on quality of life using 12 item Pruritis severity scale and 5-D Itch scale, Dermatology
3. A pilot study for development of visual cue-induced craving paradigm for alcohol dependence and its QEEG correlates, Psychiatry
4. A pilot study of the role of Intercessory Prayer in determining the outcome after severe traumatic brain injury, Department of Neurosurgery, RML, New Delhi; Neurosurgery, AIIMS, New Delhi
5. A prospective randomised controlled trial comparing the effects of intraoperative Dexametomidine and Lignocaine administration on the incidence of postoperative cognitive decline in the elderly, Neuroanaesthesia
6. A randomized, double-blind, placebo-controlled, split-head trial to study the effects of autologous platelet-rich plasma on hair growth and lesional T-helper and T-regulatory cells expression markers in alopecia areata, Dermatology and Venerology
7. A study for determination of allocentric neural navigation process schematic utilizing dynamic optic array for prospective control, Psychiatry
8. A study of autonomic functions in adolescents with specific learning disorder (Dyslexia) with and without comorbid ADHD, Psychiatry
9. A study of brain activation using functional near infrared spectroscopy and quantitative electroencephalographic spectral analysis in depression, negative and positive schizophrenia, Psychiatry
10. A study of impulse oscillometry in Sarcoidosis, Pulmonary Medicine
11. A study of respiratory impedance, resistance and reactance in Interstitial Lung Disease, Pulmonary Medicine
12. A study of the functional brain activation and electro-physiological spectral analysis in Catatonia, Psychiatry
13. Assessment of autonomic function across frailty status in Indian elderly, Geriatric Medicine
14. Association of lean mass, muscle strength and physical performance with diabetes and metabolic parameters, Medicine
15. Blood heavy metal levels and quantitative EEG correlates in children with Autism, Paediatrics
16. Cardiac autonomic tone and reactivity in patients with alcohol use disorders undergoing treatment of acute withdrawal symptoms, Psychiatry and NDDTC
17. Central serous chorio-retinopathy and meditation: Functional and morphological outcome study, RPC for Ophthalmic Sciences
18. Change in Sleep pattern, perceived stress and coping strategies at the end of first year among First Year medical undergraduate students: A prospective study, Medicine
19. Characterization of dynamic interaction between cardiovascular and respiratory signal during Autonomic Stimulation, Department of Instrumentation and Control Engineering, Dr BR Ambedkar National Institute of Technology, Jalandhar, Punjab
20. Comparative assessment of cognition, default mode networks and analysis of psychosocial behavior and lifestyle, between obese and post-bariatric surgery groups of patients, Surgery
21. Comparison of one session vs four session formats of journal clubs in postgraduate teaching, Department of Physiology, Vardhaman Mahavir Medical College (VMMC) and Safdarjung Hospital, New Delhi
22. Comparison of propofol and ketofol on transcranial motor evoked potentials in patients undergoing thoracolumbar spine surgery, Neuroanaesthesiology and Critical Care
23. Delhi glaucoma epidemiology study, RPC for Ophthalmic Sciences
24. Development of Countermeasure Gravity Loading Bodysuit and its Potential Association with Cardiovascular and Muscular System, Department of Instrumentation and Control Engineering, Dr BR Ambedkar National Institute of Technology, Jalandhar, Punjab
25. DTI, fMRI and qEEG correlates of cognition and behaviour in children and adolescents with well controlled non-lesional epilepsy: An observational study, Paediatric Neurology
26. Effect of repetitive magnetic field stimulation on neurogenesis in streptozotocin induced rat model of Alzheimer’s Disease, Biotechnology
27. Effect of Vitamin D on monocrotaline induced pulmonary artery hypertension in Rats, Pharmacology
28. Effect of Yoga based lifestyle intervention on biomarkers of cellular aging in patients with depression, Anatomy
29. Effect of Yoga-based intervention on intraocular pressure, quality of life, inflammatory markers and gene expression profile in glaucoma patients: A randomized controlled trial, RPC for Ophthalmic Sciences
30. Efficacy of a family based comprehensive Yoga programme for weight reduction among overweight children and adolescents, Paediatrics
31. Endothelial dysfunction in young patients with non-alcoholic fatty liver disease, Medicine
32. Evaluation of effect of mindfulness based stress reduction in patients with primary open angle glaucoma, RPC for Ophthalmic Sciences
33. Evaluation of effect of mindfulness based stress reduction on optic disc perfusion using OCT-angiography in glaucoma patients: A randomized controlled trial, RPC for Ophthalmic Sciences
34. Evaluation of pulmonary functions in ankylosing spondylitis, Physical Medicine and Rehabilitation
35. Evaluation of repetitive Transcranial magnetic stimulation as an adjunct to modified constraint induced movement therapy in improving upperlimb function in children with hemiparaetic cerebral palsy aged 5-18 years: A randomized controlled trial, Paediatrics
36. Evaluation of the effect of mind fulness based stress reduction in patients with advanced glaucoma, RPC for Ophthalmic Sciences
37. Feasibility of introducing Structured Yoga programme and its effect on Stress and Perceived Well-being on New Medical Under-Graduate Students of AIIMS, New Delhi, Centre for Community Medicine
38. Identification of biomarkers in Parkinson’s Disease using NMR, NMR
39. Impact of nutritional and lifestyle modification in subjects with BMI 25-29.9 kg/m² vs 30-34.9 kg/m² and to assess the effect of bariatric surgery in BMI ≥35 kg/m², Surgical Disciplines
40. Impact of supervised diet and lifestyle modifications on weight loss, body fat distribution and insulin resistance in adult Indian obese patients, Surgical Disciplines
41. Impact of supervised diet and lifestyle modifications on weight loss, body fat distribution and
42. Impact of Yoga and Meditation on epigenetic profile in rheumatoid arthritis, Anatomy
43. Interventions for stigma for persons with epilepsy in India, Neurology
44. Investigation of Heart-Brain Interactions during Internally Operative versus Externally Operative Attention Regulatory Mechanisms, Department of Instrumentation and Control Engineering, Dr B R Ambedkar National Institute of Technology, Jalandhar, Punjab
45. Isolation and molecular characterization of colorectal cancer stem cells (DBT), Biochemistry
46. Nutritional profile and lifestyle of Indian women (18-40 years) with Infertility, Lady Irwin College, Delhi University
47. Role of cytokine levels in recurrent pregnancy loss and effect of progesterone on cytokine levels, Obstetrics and Gynaecology
48. Role of Regulatory T Cells in COPD, Pulmonary Medicine
49. Role of Yoga based intervention as an adjunct in improving quality of life of glaucoma patients, RPC for Ophthalmic Sciences
50. Sleep quality and associated factors among persons aged Sixty years and above in an urban resettlement colony of South Delhi, Community Medicine
51. Sternocleidomastoid and trapezius muscle activity before and after Twin Block therapy in skeletal Class II growing patients, Centre for Dental Education and Research
52. Study of autonomic function in children and adolescents with specific learning disability, Psychiatry
53. Study of clock genes in rat model of mania-like behavior, Neurology
54. Study of cognitive function in patients with chronic kidney disease and the effect of renal transplantation, Nephrology
55. Study of potential modulator targeting pathways involved in the hyperphosphorylation of tau in Alzheimer Disease, Biophysics
56. To evaluate neck muscles activity after mandibular postural changes in growing Class II high angle patients with Twin Block therapy—An EMG study, Centre for Dental Education and Research
57. To study the changes in Bereitschafts Potentials or Movement Related Cortical Potentials in Fibromyalgia Syndrome, Psychiatry and PMR
58. Transcriptomic basis of COPD, Pulmonary Medicine
59. Unique aspects of idiopathic hypoparathyroidism, Endocrinology and Metabolism

Completed

1. A study of Impulse Oscillometry in Sarcoidosis, Pulmonary Medicine
2. A study of respiratory impedance an heart rate variability in Parkinson’s Disease, Neurology
3. An exploratory study with a purpose of finding a relationship between and stress and pain perception/ modulation in context of presence or absence of anxiety, Department of Psychology, University of Delhi
4. Central serous chorio-retinopathy and meditation: Functional and morphological outcome study, RPC for Ophthalmic Sciences
5. Comparison of Serum 25 Hydroxy Vitamin D levels and comorbidities, Paediatric Neurology
6. Differential Pre Frontal Cortex (PFC) activation for Attention Deficit Hyperactive Disorder (ADHD) patients and control group in response to emotional stimuli: A Functional Near Infrared Spectroscopy (fNIRS) study, Department of Psychology, University of Delhi
7. Effect of exercise intervention on bone mineral density in Cystic Fibrosis patients aged 6-18 years, Paediatrics
8. Effect of two anaesthetic regimes with dexmedetomidine as adjuvant on transcranial electrical motor evoked potentials during spine surgery: A pilot study, Neuroanesthesia and Critical Care
9. Evaluation of effect of mindfulness-based stress reduction in patients with primary open angle glaucoma, RPC for Ophthalmic Sciences
10. Expression analysis of potential micro RNAs in tuberculosis, Medicine
11. Feasibility of introducing Structured Yoga Programme and its effect on Stress and Perceived Well-being on New Medical Under-Graduate Students of AIIMS, New Delhi, Centre for Community Medicine (CCM)
12. Impact of local endometrial injury on the outcome of IVF cycle with previous failed implantation: Exploring the genome wide transcriptomic basis, Obstetrics and Gynecology
13. Impact of nutritional and lifestyle modification in subjects with BMI 25-29.9 kg/m² vs 30-34.9 kg/m² and to assess the effect of bariatric surgery in BMI ≥35 kg/m², Surgical Disciplines
14. In-vitro generation of induced T-regulatory cells in COPD, Pulmonary Medicine
15. Isolation and molecular characterization of human bone marrow derived mesenchymal stem cells, Biochemistry
16. Study of Physical activity among undergraduate medical students in AIIMS, New Delhi, Community Medicine
17. To compare the metabolic and hormonal effects of metformin vs metformin plus myoinositol in PCOS women undergoing ovulation induction plus IUI cycles and infertility outcome, Obstetrics and Gynaecology

PUBLICATIONS
Journals: 33 Abstracts: 34 Chapters in books: 1

PATIENT CARE
Autonomic Function Lab and Vascular Function Laboratory provide diagnostic facility for referred patients. The labs provide routine test of autonomic reactivity along with autonomic tone quantification and non-invasive recording of gastric motility (Electrogastrography, EGG). A total number of 649 humans have been tested for autonomic function test this year, which included 626 patients and 23 healthy subjects.
**Intraoperative Neurophysiology:** Intraoperative Neuro-monitoring support was provided to 439 patients from Departments of Neurosurgery, 6 from CTVS, 86 from Orthopedics and 18 from Trauma Center. A total of 549 surgeries were supported.

**Integral Health Clinic:** A total of 543 subjects were registered at IHC for short-term Yoga-based intervention, and a total of 2634 subjects (on daily basis) were trained and benefited at IHC during the year 2018-2019. This includes patients of chronic diseases (like diabetes type 2, obesity, cardiovascular diseases, chronic depression, etc) and referred patients from different departments of AIIMS (R.P.C. for Ophthalmic Sciences, Endocrinology and Metabolism, Pulmonary Medicine, Psychiatry, Orthopedics, etc.)

**Cognitive Neurophysiology Laboratory:** Body Composition Analysis of 314 patients, Infrared neuroimaging, Glaucoma (n = 51), Monitoring of Physiological Variables in Glaucoma and Renal Transplant (n = 54) infrared neuroimaging of 103 patients.

**Pain Research and TMS Laboratory:** 756 rTMS (Repetitive Transcranial Magnetic Stimulation) sessions given at Motor cortex/Dorsolateral Prefrontal cortex, 360 supervised Yoga sessions with flexibility assessment and 10 motor imagery sessions to chronic pain patients were given. Pain and Somatosensory assessment of 76 chronic pain patients and 32 healthy volunteers were done. EMG recordings of pericranial and cervical muscles done for 20 patients. Corticomotor excitability measurement and evaluation of 78 chronic pain patients and 58 healthy volunteers.

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor Kishore Kumar Deepak** was invited as Co-chairperson to hold a Symposium on ‘Lifestyle related diseases in Asia: Underlying mechanisms, functions and behavioral Transitions’ in 9th FAOPS Congress 2019 held at Kobe Convention Center Japan on 28-31 March 2019; Awarded Dr A C Duarte Monteiro Oration for the year 2018 by Seth G S Medical College and K E M Hospital, Mumbai; Member of an Expert Committee for standardization of curriculum and admission qualifications for various courses in the Universities identified for funding, Ministry of Sports and Youth Affairs, GOI; Member, Board of studies of the Department of Paramedical Sciences, School of Nursing Sciences and Allied Health, Jamia Hamdard, Delhi; Chairman, Committee for management system for Examination Section, AIIMS; Chairman, Negotiation Committee, AIIMS; Member, Store Purchase Committee, AIIMS; Executive Editor, Indian Journal of Physiology and Pharmacology (IJP); Member, selection “Khelo India”, Ministry of Sports and Youth Affairs, GOI; BP innovation has been included in Compendium 2018 published by DBT, GOI; Chairman, Central Recruitment Committee, AIIMS; Member, Biomedical Device and Technology Development (BDTD) Expert Advisory Group (EAG) DST, GOI.

**Professor Hrudananda Mallick** was President, Asian Sleep Research Society for 2013-2018; President, Indian Society for Sleep Research 2015-2019; Governing Council Member, World Sleep Society 2017-2021; Finance Secretary, Association of Physiologists and Pharmacologists of India; MOU with Andhra Pradesh Government for setting sleep laboratory and advancing sleep medicine; Associate Editor Frontiers in Neurology/Associate Editor Sleep and Vigilance; Reviewer for international journals; Chaired a plenary talk “Towards mysteries of sleep” by Manashi Yangisawa at Asian Sleep Research Society Conference, July 13, Sapporo, Japan; Expert, selection committee of AIIMS Rishikesh, Bhubaneswar and Jodhpur; Professor Incharge stores, Department of Physiology; CPIO, Hostel; Member, Institute Ethics Committee.

**Professor Debabrata Ghosh**’s PhD Student, Dr Anupa G received Best Poster Presentation Award for the Paper entitled, ‘Is endometriosis a ‘benign’ disease?’ in “International Conference on Advances in Zoological Research” at Aligarh Muslim University, Aligarh on 9-10 March 2019; Member of Expert Group/Project Review Committee Meeting in the subject of Pharmacology, Traditional Medicine, Medicinal Plants and Physiology in ICMR, New Delhi on 22 March 2019; Chaired the Technical session in the “International Conference on Advances in Zoological Research (ICAZR) and Workshop on Real Time PCR” at Aligarh Muslim University, Aligarh on 9-10 March 2019; Member of the Fellowship Expert Group Meeting in the subject of Pharmacology Traditional Medicine, Medical Plant and Physiology in ICMR, New Delhi on 5-6 March 2019; Convened a joint meeting of the Core Committee and the Local Organizing Committee on 18 May 2018 in Government Medical Kozhikode, Kerala; Convened a joint meeting of the Core Committee on 4 May 2018 at NEGRHIHMS, Shillong, Meghalaya.

**Professor Kanwal Preet Kochhar** was invited as Distinguished Guest in the International Yoga Day celebration on 21 June 2018 at CSIR, Ministry of Science and Technology, Pusa Road, New Delhi to present a plenary talk on scientific validation of research in Yoga and Meditation; Chairperson to hold a Symposium “Lifestyle Related Diseases in Asia: Underlying Mechanisms, Functions and Behavioural Transitions” in 9th FAOPS Congress 2019 that was held at Kobe Convention Center Japan on 28-31 March 2019; Panelist in the session on disability competencies under the role “Communicator” Competencies in the “Disability-inclusive Compassionate Care: Public Engagement and Faculty Sensitization on Disability Competencies” Programme was held on 9 February 2019 at University of Chicago, Centre in Delhi; Joined the Disarming Dialogues: Stories of Professionalism and Ethics as an Approach to Knowing (SPEAK), was held on 4 October 2018 at The University of Chicago Center in Delhi; Invited as Resource Faculty in Seminar/Meeting scheduled was held on 20 August 2018 at Bureau of Police Research and Development, National Police Mission at Mahipalpur, New Delhi on “Improving Psycho-Social Skills and Coping Mechanisms in Police” on 11 September 2018; Panelist in Ethics of the Doctor-Patient Relationship in as part of Acknowledging the Architects of Healthy India under aegis of “The Economic
Times Doctor’s Day Conclave 2018” was held on 30 June 2018, New Delhi; Member of Taskforce of a Multi-Sectoral Taskforce on NCDs’ comprising of multi-sectoral CSOs, CSO alliances, United Nations partners and government was held on Friday, 29 June 2018 at PHD Chamber of Commerce and Industry, 4/2, PHD House, August Kranti Marg, New Delhi; Invited by the Public Health Foundation of India (PHFI) for lecture recording for Postgraduate Diploma in Public Health Education Integration of alternative and complementary medicine: Approaches for NCD prevention and management, 13 July 2019.

**Professor Nalin Mehta** was Member, MCI Board of Governors appointed Expert Group Committee (UG); Member, Selection Committee for Faculty at Guru Nanak Dev University (GNDU), Amritsar, Punjab; Member Research Ethics Board, Regional Institute of Medical Sciences (RIMS), Imphal, Manipur; External Expert Member, Standing Selection Committee for Selection of Faculty (Physiology), AIIMS, Jodhpur; External Member, Board of Studies, for Undergraduate courses, AIIMS, Bhubaneswar.

**Professor Suman Jain** was selected as member of “Project Review Committee-Basic Sciences” by competent authority, AIIMS, New Delhi; Selected as member of committee constituted for appointment of Nurses officer for temporary post at AIIMS, New Delhi; Selected as an executive member of Indian Academy of Neurosciences; Nominated as Chairperson to conduct Symposium on “Sleep in neuropsychiatric diseases” during 36th Annual Conference of Indian Academy of Neurosciences held at Banaras Hindu University, Varanasi, from 29-31 October 2018; Selected as an External Expert by Vice Chancellor, Bharathiar University for Doctoral Research Committee of PhD student at Defence Institute of Physiology and Allied Sciences, Delhi.

**Professor Raj Kumar Yadav** was on the Editorial Board of Annals of yoga and physical therapy and International Journal of Clinical and Experimental Physiology (Wolters Kluwer Health); Member, Committee to Formalize Scientific Cadre, AIIMS, New Delhi; Member, AIIMS Students Benevolent Fund Committee for UG students; Member, Oversight Committee, AIIMS Power Grid Vishram Sadan, JPNA Trauma Centre, AIIMS, New Delhi (Since May 2018); Deputy Hostel Superintendent, AIIMS, New Delhi; Finance Secretary, TIPS 2018, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018 at AIIMS, New Delhi; General Secretary: FAIIMS: Faculty Association of AIIMS, New Delhi; Secretary, Association of Physiologists and Pharmacologists of India (APPI), Delhi chapter; Secretary, Faculty Club, AIIMS, New Delhi; Joint Secretary, Association of Physiologists of India; Chief Election Commissioner, SYS (Society of young scientists) elections, June 2018; Wellness Programme for Post Graduate Trainees: As speaker and resource faculty at Ramalingaswami Board Room, AIIMS, New Delhi, 9 August 2018 and 27 September 2018; Chaired a Plenary Session during Indo-European workshop on next generation Physiology for healthy lifestyle, AIIMS, New Delhi; 31 January-1 February 2019; First AIIMS Research Day: Selected oral presentation by Junior Resident (one of the best top three): To evaluate the effect of meditation on trabecular meshwork gene expression in patients with advanced primary open angle glaucoma (RPC, MD thesis, as co-guide) on 26 March 2019, AIIMS, New Delhi.

**Dr Renu Bhatia** was Member, International Association for Study of Pain (IASP); Nodal Officer, Department of Physiology for Institutional Annual Report Committee, AIIMS, New Delhi; Member, Women in Brain Stimulation.

**Dr Nasreen Akhtar** was Member of Institutional Annual Report Committee; Member of Medical Board, Medical Examination at AIIMS, New Delhi.

**Social outreach Programmes**

Media coverage Dr Raj Kumar Yadav

1. Television, As a medical expert in the live show ‘TOTAL HEALTH’ discussing on “Prevention of diseases by Yoga” on DD NEWS channel, 1 April 2018, 8.30 to 9.30 am
2. Television, As a medical expert in the live show ‘TOTAL HEALTH’ discussing on “Importance of Yoga” on DD NEWS channel, 3 June 2018, 8.30 to 9.30 am
3. AIR (All India Radio), Talk on “Yoga and health”, 7 June 2018, 2.30 pm
4. Television, As a medical expert in the live ‘health show’ discussing on “AYUSH system and healthy lifestyle” on DD National Channel, 9 June 2018, 5 to 5.30 pm
5. Television, Rajya Sabha TV, Live Programme, Discussed on obesity as a medical expert, 2 March 2019, 11 am to 12 noon
6. Television, DD NEWS Channel, Live Programme “Total health”, discussed on obesity, 17 March 2019, 8.30 to 9.30 am

**VISITING SCIENTISTS**

1. Guest lecture by Dr Elad Fein, CEO iFEEL, Israel on Heart Rate variability in Department of Physiology on 6 December 2018
2. Guest lecture on “The effect of meditation on Cognition, affect and Brain Oscillations” by Dr Marieke Van Vugt from University of Groningen, Netherlands on 5 July 2018

3. Teleconference update: Live interaction with Professor Christopher Mathias on emergence of Autonomic Neuroscience.

4. Visiting scientists during IBRO-APRC School 2018
   a. Anthony J Hannan, NHMRC Principal Research Fellow, Florey Institute of Neuroscience and Mental Health, University of Melbourne, Australia
   b. Arpan Banerjee, Associate Professor, National Brain Research Institute, Manesar, Haryana
   c. B S Shankaranarayana Rao, Professor, Department of Neuropsychology, National Institute of Mental Health and Neurosciences, Bangalore, India
   d. Basavaraju Sanganahalli, Associate Research Scientist, Department of Radiology and Biomedical Imaging, YALE University School of Medicine Connecticut, Connecticut, USA
   e. Daisuke Ono, Assistant Professor, Department of Neuroscience II, Research Institute of Environmental Medicine, Nagoya University, Nagoya, Japan
   f. Gaurav Jain Senior, Assistant Professor, Department of Pharmaceutics, School of Pharmaceutical Educational and Research, Jamia Hamdard University, New Delhi, India
   g. Gurcharan Kaur, Professor, Department of Biotechnology, Guru Nanak Dev University, Amritsar, India
   h. Hisao Nishijo, Professor, Graduate school of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan
   i. J P C Chelliah, Assistant Professor, Neuroscience Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India
   j. Jumpei Matsumoto, Assistant Professor, System Emotional Science, Graduate school of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama 930-0194, Japan
   k. Jun Matsubayshi, Assistant Professor, Graduate School of Medicine, Kyoto University, Kyoto, Japan
   l. Jyotirmoy Banerjee, Assistant Professor, Department of Biophysics, All India Institute of Medical Sciences, New Delhi, India
   m. Kamalesh K Gulia, Scientist, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram
   n. Kaviraja Udupa, Additional Professor, Department of Neuropsychology, National Institute of Mental Health and Neurosciences, Bangalore, India
   o. Manjula Suri, Associate Professor, Department of Physiology and Promotive Health, Institute of Home Economics, University of Delhi, New Delhi
   p. P K Mandal, Assistant Professor, Department of Biotechnology, Indian Institute of Technology, Roorkee, India
   q. Phalguni Anand Alladi, Scientist, Department of Neurophysiology, National Institute of Mental Health and Neurosciences, Bangalore, India
   r. Ratna Sircar, The Graduate Center, City University of New York, New York, USA
   s. Ronaldo M Ichiyama, Associate Professor, School of Biomedical Sciences, University of Leeds, Leeds, UK
   t. Sajikuma Sreedharan, Assistant Professor, Neurobiology Programme, Department of Physiology, Centre for life Sciences (Cels), National university of Singapore, Singapore
   u. Shashi Wadhwa, Professor and Head, Department of Anatomy, North DMC Medical College
   v. Soumya Iyengar, Professor, National Brain Research Institute Manesar, Haryana
   w. Sourav Banerjee, Associate Professor, National Brain Research Institute, Manesar, Haryana, India
   x. Stefania Raimondo, Assistant Professor, Department of Clinical and Biological Sciences, University of Turin, Turin, Italy
   y. Sumana Chakravarty, Principal Scientist, Indian Institute of chemical technology, Hyderabad, India
   z. T Laxmi Rao, Professor, Department of Neurophysiology, National Institute of Mental Health and Neurosciences, Bangalore, India
   aa. Yogendra Kumar Gupta, Principal Advisor, Translational Health Science and Technology Institute, Faridabad, India
   bb. Yoganarasimha Doreswamy, Additional Professor, National Brain Research Institute, Manesar, Haryana
5. Visiting scientists during Indo European Conference, January 2018
   a. Professor Luc Penicaud, Head, French Scientific Council, Dijon, France
   b. Professor Nandu Goswami, Otto Loewi Research Center (for Vascular Biology, Immunology and Inflammation) and HOD, Physiology, Graz, Austria
   c. Professor Naim Akhtar Khan, Secretary, French Physiological Society, Lyon, France
   d. Professor Amira Sayed, University of Mentori, Constantine, Algeria
   e. Professor Madan Thangavelu, University of Cambridge, United Kingdom

### 9.33. Plastic, Reconstructive and Burns Surgery

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<tr>
<th>Professor and Head</th>
<th>Maneesh Singhal</th>
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<tr>
<td><strong>Assistant Professors</strong></td>
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<tr>
<td>Raja Tiwari</td>
<td>Shashank Chauhan</td>
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<td>Rajkumar Manas</td>
<td>Rakesh Dawar</td>
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<td>Shamendra Anand Sahu</td>
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**HIGHLIGHTS**

The Department of Plastic, Reconstructive and Burns Surgery at AIIMS, New Delhi was established in July 2015. The department now has five faculty members, 15 MCh residents and four non-academic senior residents. The monthly inflow in our out-patient department has steadily increased over the past year. In addition to specialized clinics in Hand and Cleft, we have also started Leprosy Clinic in collaboration with the Department of Dermatology. We have also started the services for the creation of arteriovenous fistulas and reconstruction of oncological defects at the cancer centre. At JPN Trauma Centre, we are providing a full spectrum of reconstructive surgeries, including microvascular surgery and replants for trauma patients, along with a specialized clinic for evaluation of patients with brachial plexus injuries. The department has conducted cadaveric courses and hands-on workshop for plastic surgery flaps as well as a comprehensive CME (AIIMS plastic surgery update) for post-graduate exam preparation. We also run an OPD at Ballabhgarh for reaching out to the rural population. There have been multiple presentations by our faculty and residents at various national and international conferences. We also successfully conducted the FNB exit exam for Hand and Microsurgery at our centre. The future endeavours of the department include starting of a state-of-the-art Center for Burn Care and Reconstructive Surgery and a dedicated skin bank, and composite tissue allotransplantation programme for hand and face transplant.

**CMEs/Workshops/Symposia/National and International Conferences**

**Organized by the department**

1. Cadaveric Dissection Course for Filler and BOTOX at Aesthetic express, New Delhi
2. 1st AIIMS Plastic Surgery Update 2018 at AIIMS, New Delhi
3. Cadaver Flap Course in September 2018 at JPNATC, New Delhi
4. Cadaver Flap Course in December 2018 at JPNATC, New Delhi

**Lectures delivered**

**Maneesh Singhal**

2. Introduction to lower limb reconstruction, CTRF flap dissection course on lower extremity, 16 September 2018, JPNATC, AIIMS, New Delhi
3. Free Gracillis muscle flap, CTRF flap dissection course on lower extremity, 16 September 2018, JPNATC, AIIMS, New Delhi
4. Pressure sore, CMET: Workshop on wound care and pressure sore prevention, 18 September 2018, AIIMS, New Delhi
5. Role of plastic surgery in separation of Craniopagus twins, APSICON 2018, 23 November 2018, Lucknow
6. Skin flaps in Conjoined twins separation, 1st International Conference on Conjoint Twins (ICC), 15 February 2019, AIIMS, New Delhi
7. Surgical Anatomy of lip and palate in cleft, IOS PG Students Convention 2019, 21 February 2019, ITS Dental College, Greater Noida, UP

Raja Tiwari
1. Moderator and co-organizer of Cadaver workshop, ISPNS, 6 April 2018, Delhi
2. Moderator and co-organizer of Cadaver workshop on injectables, EX 2018, 19 April 2018, Delhi
3. Invited Faculty and Chairperson, IOPBS-WCI 2018, 26-28 October 2018, Goa
4. Radical release and reconstruction of severe post burn elbow and knee flexion contractures in young adults: Our experience, ISBI 2018, 30 November 2018 to 4 December 2018, Delhi
5. Scalp Replantation: Tips and tricks, APSI: Delhi Chapter, 12 January 2019, Delhi
6. Management of Acute and Chronic Wounds, CMETi: Workshop on wound care and Pressure sore prevention, 10 April 2018, Delhi
7. Moderator and lecturer on Planning and execution of local flaps, 1st AIIMS PLASTIC SURGERY UPDATE 2018, 3 September 2018, Delhi
8. Co-organizer of Lower Extremity Flap Dissection Course, Lecture on Medial Plantar artery and PAP flaps, ACSST, 16 September 2018, Delhi
9. Basic principles of wound healing, CMET: Workshop on wound care and Pressure sore prevention, 18 September 2018, Delhi
10. Double Micro-vascular Free Flap on a 5 year Old Child in Emergency Setting, Clinical Combined Rounds, 23 October 2018, Delhi
11. Organizer of Extremity Flap Dissection Course, Lecture on Free toe transfer and PAP flaps, ACSST, 14 December 2018, Delhi
12. Role of Plastic surgery in wound healing, CMETi: Workshop on wound care and Pressure sore prevention, 10 January 2019, Delhi
13. Wound classification and assessment, CMETi: Workshop on wound care and pressure sore prevention, 15 March 2019, Delhi

Raj Kumar Manas
2. Free Gracillis muscle flap, CTRF flap dissection course on lower extremity, 16 September 2018, JPNATC, AIIMS, New Delhi
3. Reverse sural artery flap, CTRF flap dissection course on lower extremity, 16 September 2018, JPNATC, AIIMS, New Delhi
4. Challenges in nerve grafting, ISSHCON 2018, 6 October 2018, Coimbatore
6. FDMA Flap, CTRF flap dissection course on upper extremity, 15 December 2018, JPNATC, AIIMS, Delhi
7. Upper extremity reconstruction, Visiting faculty lecture, 12 January 2019, St. James Hospital, Trichur
8. Lower extremity reconstruction, Visiting faculty lecture, 12 January 2019, St. James Hospital, Trichur
9. Nerve repair and reconstruction, Visiting faculty lecture, 12 January 2019, St. James Hospital, Trichur

Rakesh Dawar
1. Wound classification, CMETi: Workshop on wound care and pressure sore prevention, 18 September 2018, AIIMS, New Delhi
2. Wound classification, CMETi: Workshop on wound care and Pressure sore prevention, 10 January 2019, AIIMS, New Delhi

Shashank Chauhan
1. Total scalp avulsion: A two and half years experience at our newly started Plastic Surgery
2. Department, APRASOCON, 12 January 2019, AIIMS, Bhubaneshwar, Odisha
5. Skin flaps in Conjoined twins separation, 1st International Conference on Conjoint Twins (ICC), 15 February 2019, AIIMS, New Delhi
6. How to decide on reconstruction of tongue and buccal mucosa defects: Introduction to regional and free flaps, International Head and Neck Dissection Course, 28 March 2019, AIIMS Cadaveric Surgical Skills Training (ACSST), Jai Prakash Narayan Apex Trauma Centre (JPNATC), New Delhi
7. Panel Discussion and Consensus Statement on “Setting up a burn unit”—Physical Planning, NABICON 2019, 3 March 2019, Allahabad (Prayagraj), Uttar Pradesh

Oral papers/posters presented
1. Dawar R, Dhingra R, Tiwari R. Vascular labelling for demonstration of vascular anatomy of face and avoiding danger zones after filler injections, Cosmedicon, 14-17 March 2019, Sydney, Australia
5. Manas RK. Comprehensive review of post burn Marjolin ulcer, 19th ISBI, 2 December 2018, Delhi
6. Manas RK. Social media and burns prevention, ISBI 2018, 2 December 2018, Delhi
7. Manas RK. Secondary nerve reconstruction, Brachialcon 2019, 31 March 2019, Mahabalipuram

RESEARCH
Funded projects
Ongoing
1. Situational Analysis of Burns in India, Maneesh Singhal, Ministry of Health and Family Welfare, Government of India, 4 years, 2014–ongoing, Rs 38.5 lakhs
2. Controlled Clinical trial to assess the effectiveness of topical application of C1 herbal oil on superficial external wounds (Phase II), Maneesh Singhal, Ministry of AYUSH, Government of India, 4 years, 2015-ongoing, Rs 38 lakhs
3. Pilot Study on utility of Robotic surgery for Brachial plexus reconstruction, Raja Tiwari, Intramural research grant, 1 year (applied for extension), 2018-ongoing, Rs 4.99 lakhs

Completed
1. Controlled clinical trial to assess the effectiveness of topical application of C1 herbal oil on split thickness skin graft donor, (Phase I), Dr Maneesh Singhal, Ministry of AYUSH, Government of India, 4 years, 2014-2018, Rs 17.22 lakhs
2. Developing First Aid Module for Community, Dr Maneesh Singhal, WHO and Ministry of Health and Family Welfare, Government of India, 6 months, May-November 2018, Rs 6.1 lakhs

Departmental projects
Ongoing
1. A prospective study to evaluate the efficacy of Fluorescent angiography in detection of nipple Areolar perfusion in patients undergoing reduction Mammoplasty
2. Outcomes after breast cancer treatment, An International perspective
3. Epidemiology of hand injuries in single centre JPNATC AIIMS, Retrospective and prospective study
4. Effectiveness of a regular training programme on microsurgery skills in plastic surgery residents
5. Prognostic factors associated with outcome in patients who were treated for spaghetti wrist injuries
6. To study the clinical and electrophysiological outcomes of using Platelet-rich plasma in acute peripheral nerve injury repair
7. Analysis of factors affecting survival of digital replant

**Completed**

1. Liposuction assisted subcutaneous mastectomy
2. Soft tissue profile of patients with cleft lip and palate in the Indian population
3. Evaluation of the suitability and outcome of Profunda artery perforator flap for different defects

**Collaborative research**

**Ongoing**

1. Role of Microdialysis in post-operative assessment of Microvascular free flaps, Anaesthesiology and Critical care
2. Cleft lip and palate anomaly in India: Clinical profile risk factors and current status of treatment: A hospital-based study, Orthodontics, Centre for Dental Education and Research (CDER)

**PUBLICATIONS**

**Journals:** 11

**PATIENT CARE**

**Inpatient patient care facilities**
- Hyperbaric Oxygen therapy facility
- Microvascular facility
- Hand and congenital anomalies surgery facility
- Craniofacial and cleft surgery
- Aesthetic surgery
- Head and neck reconstruction
- Trunk and extremity reconstruction

**Clinics**
- Combined Cleft Clinic
- Hand Clinic
- Brachial Plexus Clinic
- Combined Leprosy Clinic

**Community Service/Camps**
- Organised a “Burn Prevention Awareness and primary Aid Programme” at CHRPC, Ballabhgarh in which we delivered Public lecture for burn prevention, firecrackers and other types of burns and first Aid management. About 100 patients and patient’s relatives attended the programme in OPD premises and got benefited for burns prevention awareness
- Plastic Surgery OPD services at CHRPS, Ballabhgarh every Tuesday
- Prepared a poster and spread awareness about plastic surgery on Institute Day on 25 September 2018 at AIIMS, New Delhi

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor Maneesh Singhal** was invited as judge in competitive paper session in 13th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 31 March 2019; Invited as judge in competitive paper session in 12th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 20 April 2018.

**Dr Raja Tiwari** was invited as Chairperson in free paper session in 13th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 31 March 2019; Invited as Chairperson in free paper session in 12th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 20 April 2018; Invited Chairperson in the reduction mammoplasty session at IOPBS and WCI Symposium on 27 October 2018 in Goa, India.

**Dr Rakesh Dawar** was invited as judge in competitive paper session in 13th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 31 March 2019; Invited as judge in competitive paper session in 12th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 20 April 2018; Invited Faculty at IOPBS and WCI Symposium on 27 October 2018 in Goa, India; Invited Faculty at Plasticon from 25 to 26 January 2019 at AIIMS, Rishikesh, Uttarakhand, India; Invited
Faculty at 10th Annual Congress of Association of Hair Restoration Surgeons of India (HAIRCON) on 10 February 2019 at Indore, Madhya Pradesh, India.

Dr Raj Kumar Manas was invited as Faculty in ISPNS 2018 meeting held at Sir Ganga Ram Hospital, New Delhi; Invited as Chairperson in free paper session in 12th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 20 April 2018; Invited as Faculty in EX 2018, International conference on Aesthetics and anti-aging in Delhi on 20-22 April 2018; Invited faculty and chaired the session “Professor SP Bajaj General Plastic Surgery” in APSICON 2018, Annual Conference of Plastic Surgeons of India held in Lucknow; Received Best paper Award by PRS Global Open and American Society of Plastic Surgeons for “Best International Collaboration- Honourable Mention Award 2018” for the paper published in PRS Global open; Awarded in American Society of Plastic Surgery Meeting held in Chicago, USA; Professor Aikawa Young Investigator Prize 2018 by International Society of Burn Injuries for the best paper title comprehensive review of Post Burn Marjolin Ulcer in ISBI 2018 “International Society of burn Injuries” meeting held in New Delhi; Was Awarded the prestigious “Kammath Best Poster award 2017” by Association of Plastic surgeons of India in APSICON 2018 held in Lucknow; Received First Prize for Professor J.L. Gupta e-paper award session for the e-paper our experiences of Birth Brachial Plexus Injuries in APSICON 2018, Annual Conference of Plastic Surgeons of India; Book prize for Best Paper in Individual Free Paper Session on nerve injuries in APSICON 2018; Organised 1st AIIMS Plastic Surgery Update on 1-3 September 2018 as organizing secretary.

Dr Shashank Chauhan was invited as judge in competitive paper session in 13th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 31 March 2019; Invited as judge in competitive paper session in 12th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 20 April 2018; Invited as judge in competitive paper session in APRASACON 2019 at Bhubaneshwar, Odisha on 12 January 2019.

### 9.34. Psychiatry

<table>
<thead>
<tr>
<th>Professor and Head</th>
<th>Rakesh Kumar Chadda</th>
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<td>Professors</td>
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<tr>
<td>Pratap Sharan</td>
<td>Rajesh Sagar</td>
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<td>Nand Kumar</td>
<td>Mamta Sood</td>
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<td>Associate Professors</td>
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<td>Sujata Satapathy (Clinical Psychology)</td>
<td>Raman Deep</td>
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<td>Assistant Professors</td>
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<td>Koushik Sinha Deb</td>
<td>Rohit Verma</td>
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<td>Bichitra Nanda Patra</td>
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<td>Child Psychologist</td>
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<td>Renu Sharma</td>
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**HIGHLIGHTS**

Team from Department of Psychiatry along with Professor R Guleria, Director, AIIMS on-site inspection visit to South Sudan
The Department of Psychiatry in addition to conducting quality training for MD (Psychiatry), PhD (Psychology) and MBBS students is also engaged in training programmes for BSc/MSc nursing students and residents from the Departments of Medicine, Geriatric Medicine, Emergency Medicine, Palliative Medicine, and DM Neurology posted in psychiatry for various durations. The department is currently undertaking a number of key funded research projects in collaboration with international and national agencies like National Institute of Health Research (NIHR UK), World Health Organization (WHO), Department of Science and Technology, India (DST) etc. The department successfully organized a number of key events in the year including National CME on Consultation Liaison Psychiatry (April 2018), Wellness Program for Post Graduate Trainees (August 2018; March 2019), 2nd National CME on Neuromodulation (May 2018), World Mental Health Day Public Lecture and Panel Discussion (October 2018), workshop and certificate course on repetitive Transcranial Magnetic Stimulation (rTMS) (December 2018), workshop on providing feedback to MCI for Undergraduate Curriculum (December 2018). The department has always been a pioneer in providing quality mental health services. It runs daily walk-in and follow-up clinics in addition to weekly specialty clinics for child and adolescent psychiatric disorders, psychosomatic disorders, common mental disorders, severe mental disorders, dual diagnosis disorders and brain stimulation clinic. The department also provides community outreach services 6 days a week at CRHSP, Ballabhgarh with services provided to 3,974 new cases and 6,000 follow up cases in 2018-2019. The department provided out-patient consultation services to a total of 15,289 new cases and 62,229 follow up cases in 2018-2019 with in-patient management for 258 patients.

EDUCATION

Undergraduates

Theory lectures: 6th Semester - 20 hours
Clinical teaching/posting: 3rd Semester - 7 hours
4th-5th Semester - 25 days
6th-8th Semester - 40 days

Teaching in community at CRHSP, Ballabhgarh: 7th Semester - 12 hours (Community Psychiatry)

BSc Nursing

Theory lectures: First year (Psychology) for 15 hours; Third year (Psychiatry) for 8 hours
Clinical posting: Third year in Psychiatry ward for 2 months

MSc Nursing

Theory lectures: First year for 8 hours
Clinical posting: First year - 8 months in psychiatry ward and one month in psychiatry OPD
Second year - 3-4 months in psychiatry ward
Thesis work: Conduct their thesis work in psychiatry OPD and ward
Training of Junior Residents posted from other departments

Junior residents from Departments of Medicine, Geriatric Medicine, Emergency Medicine and Palliative Medicine, and DM trainees in Neurology are posted to department of psychiatry for a period of 2-4 weeks for training in psychiatry

MD (Psychiatry) and PhD Teaching

- Seminar once a week
- Case conference once a week
- Journal discussion once a week
- Thesis protocol and midterm presentation once a week
- Tutorials once a week
- Psychotherapy supervision for postgraduate psychiatry and doctoral level clinical psychology students
- Supervision of Consultation-Liaison training for junior residents in psychiatry

CMEs/Workshops/Symposia/National and International Conferences

- National CME on consultation liaison psychiatry, 9 April 2018, AIIMS, New Delhi
- 2nd National CME on “Neuromodulation: Focus on Neuropsychiatry and Behavioral Neurology”, 13 May 2018, AIIMS, New Delhi
- Wellness Program for Post Graduate Trainees, 9 August 2018 and 9 March 2019, AIIMS, New Delhi
- World Mental Health Day Public Lecture and Panel discussion on “Mental health and young people in a changing world”, 9 October 2018, New Delhi
- Workshop and Certificate Course on repetitive Transcranial Magnetic Stimulation (rTMS), 15 December 2018, AIIMS, New Delhi
- Workshop on Providing Feedback to MCI for Undergraduate Curriculum, 5 December, 2018, AIIMS, New Delhi

CMEs, National and International Conferences

Lectures delivered

Rakesh Kumar Chadda

1. C-L Psychiatry in low resource settings: Meeting the challenge, National CME on Consultation Liaison Psychiatry, 9 April 2018, AIIMS, New Delhi
2. Management of substance use: Public health approach, Mid Term CME of Indian Association of Private Psychiatrists—Delhi Chapter, 24 June 2018, New Delhi
3. Panel discussion on substance use, Panel International Day on Drug Use, 21 June 2018, UNODC ROSA, Chanakya Puri, New Delhi
4. Capacity assessment in criminal cases, PG Development Programme, Indian Psychiatric Society, 30 June 2018, Surajkund
5. Sensitization of mental health issues: An overview of the legal framework, Orientation Programme on Mental Health, 28 July 2018, Delhi Judicial Academy
7. Metabolic syndrome: Guideline development and focus on evidence based approach and cultural issues, Annual Conference of the Indian Psychiatric Society, North Zone, 6-7 October 2018, Government Medical College, Chandigarh
8. Principles and possibilities of prevention in psychiatry, Annual Conference of Indian Psychiatric Society, East Zone, 26-28 October 2018, Bodh Gaya
9. Drug addiction and Indian culture: Preventive approaches for drug addiction, 20th Annual Meeting of the International Society of Addiction Medicine, 2-5 November 2018, Busan, South Korea
10. Prescription drug abuse—Challenges, 20th Annual Meeting of the International Society of Addiction Medicine, 2-5 November 2018, Busan, South Korea
13. Treatment-resistant bipolar disorder: Case vignette approach, National Workshop on Treatment Resistance in Psychiatry, 24 November 2018, Kolkata


17. Youth and mental health: Challenges ahead, National Conference on ‘Health and Well Being of Children and Adolescents’, 14 March 2019, Central University of South Bihar, Gaya

18. Mental health: Concept and policy initiatives, National Seminar on Health Policy Research: Current Scenario, 15 March 2019, University of Delhi, Delhi

**Pratap Sharan**

1. Available treatments, Public Lecture on Coping with Schizophrenia, 24 May 2018, AIIMS, New Delhi

2. Communication with the non-psychiatrist clinician: Ethical issues in CL psychiatry, The National CME on Consultation-Liaison Psychiatry, 9 April 2018, AIIMS, New Delhi

3. Rights of the persons with mental illness, Indian Psychiatric Society-North Zone Postgraduate Development Program, 30 September 2018, Vivanta By Taj, Faridabad

4. Mental health problems in young people, Public Lecture on Young People and Mental Health in a Changing World, 9 October 2018, AIIMS, New Delhi

5. Current treatment guidelines: Their applicability to the rural and community mental health care in India, Silver Jubilee National Conference of the Indian Association for Social Psychiatry, 16-18 November 2018, Pt. B. D. Sharma University of Health Sciences, Rohtak

6. Psychological aspects, Awareness Workshop on Legal and Psychological Aspects of #MeToo Movement, 19 November 2018, AIIMS, New Delhi

7. Depression: A priority mental health condition, Regional Workshop on Accelerating mhGAP (Mental Health Gap Action Programme), 26-27 November 2018, Jakarta, Indonesia

8. Practical issues on implementing mhGAP, Regional Workshop on Accelerating mhGAP (Mental Health Gap Action Programme), 26-27 November 2018, Jakarta, Indonesia

9. Ethical concerns in health care, Ethics in Psychological Research: National Seminar Under UGC Delhi, 16 March 2019, Psychology Department, Delhi University, Delhi

10. Mental stigma and empowerment, Com’ Acumen 2019, 18 January 2019, Jesus and Mary College, New Delhi

**Rajesh Sagar**

1. Managing the agitated patient, National CME on Consultation Liaison Psychiatry, AIIMS, 9 April 2018, New Delhi

2. Major mental health research and clinical practice challenges in South Asia, South Asia Collaboration on Mental Health, British Council and Bangor University, UK, 11 April 2018, Kathmandu, Nepal

3. Importance of reproductive and sexual health and menstrual hygiene, Panel Discussion and Lecture on Occasion of Inauguration of Pink Toilets, NCPCR at PVR Anupam, 24 April 2018, New Delhi

4. Handling children with mobile/Tab addiction, 1st South Asian Association of Paediatric Dentistry Conference, 6 May 2018, New Delhi

5. Child sexual abuse, Panel discussion, ICANCL Group and AIIMS, 11 May 2018, New Delhi

6. Inaugural address-need for training program, NS DNS ANS Training Programme “Nursing Administrator Empowerment Programme”, AIIMS, 14 May 2018, New Delhi

7. Effective communication and counselling, NS DNS ANS Training Programme “Nursing Administrator Empowerment Programme”, AIIMS, 17 May 2018, New Delhi

8. Effective communication and counselling, NS DNS ANS Training Programme “Nursing Administrator Empowerment Programme”, AIIMS, 7 June 2018, New Delhi


10. Effective communication and counselling, NS DNS ANS Training Programme “Nursing Administrator Empowerment Programme”, AIIMS, 21 June 2018, New Delhi


12. Mental health, Inaugural Public Lecture and Interaction-for DGHS Office and MoHFW, 5 July 2018, New Delhi

13. Psychological and psychiatric impacts of child sexual abuse, Multi-Disciplinary Discussions on Child Sexual Abuse to Parliamentarians, NCPCR, Speaker Research Initiative, 2 August 2018, New Delhi
Indian Child Abuse, Neglect and Child Labour (ICANCL) Group Indian Academy of Paediatrics and UNICEF
India, 6 August 2018, New Delhi

15. Behavior addiction-concept and epidemiology, Public Lecture Theme on “Parenting of School Children and Misuse of Social Media”, Indian Association for Social Psychiatry, 18 August 2018, Agra

16. Mental health needs of children and child sexual abuse, Training on Trauma Assessment and Intervention for CSA-by NCPCR, 28 August 2018, Aizwal, Mizoram

17. Trauma risks and vulnerability assessment, Training on Trauma Assessment and Intervention for CSA-by NCPCR, 28 August 2018, Aizwal, Mizoram

18. Impact of CSA, Training on Trauma Assessment and Intervention for CSA-by NCPCR, 28 August 2018, Aizwal, Mizoram

19. Creating safe environment for children in schools, National consultation on creating awareness on violence against children through curriculum, NCPCR, 8 September 2018, Mumbai

20. Role of District Disability Rehabilitation Centre (DDRC) in Mental Health Disabilities, National Conference on District Disability Rehabilitation Centre (DDRC), DePwD, MoSJE, 14 September 2018, New Delhi


23. Psychosocial rehabilitation as per provisions of MHCA 2017, Understanding Rules and Regulations, CME on “Psychosocial Rehabilitation as per Provisions of MHCA 2017: Challenges and Road Ahead”, DPS, IAPP, 1 October 2018, New Delhi

24. Mental health of young people, Symposium and panel discussion on occasion of World Mental Health Day, Safdarjung Hospital and VM Medical College, 4 October 2018, New Delhi

25. Young people and mental health in a changing world, Seminar on occasion of World Mental Health Day, Jamia Milia Islamia, 9 October 2018, New Delhi

26. ISAA assessment and ASD certification, National Workshop on Disability Certification, Indian Psychiatry Society, 21 October 2018, Mumbai

27. Psychology of children-understanding stress, trauma, depression and anxiety, Workshop on child protection and role of media, Jamia Milia Islamia-AJK Mass Communication Research Centre, 27 October 2018, New Delhi


29. Prioritizing research questions-child and adolescent mental health, North East England South Asia Mental Health Alliance (NEESAMA) Meeting, Newcastle University, British Council and NTW NHS Trust, 3 November 2018, Kathmandu

30. Identifying persons with mental health issues, ToT Workshop for Community Health Workers, WHO, MoHFW & NIMHANS, 12 November 2018, Bangalore

31. Dealing with concerning behaviors in children and elderly, ToT Workshop for Community Health Workers, WHO, MoHFW & NIMHANS, 12 November 2018, Bangalore

32. Treatment resistant Schizophrenia: Focus on newer agents, National CME of Psychiatrists Association of Nepal (PAN), 15 November 2018, Nepal

33. Brain and behavior, seminar organized by Brain Behavior Research Foundation of India and Gandhi Darshan, Ministry of Culture, Government of India, 17 November 2018, New Delhi

34. Management of adjustment disorders, Training program, Central Council of Homeopathic Research, 27 November 2018, New Delhi

35. Promoting mental health for elderly, Training course on Health Care Management of Elderly, NIHFW, 29 November 2018, New Delhi

36. Counselling and mental health intervention strategies in cases of child sexual abuse, ECHO video conference-web lecture, Indian Child Abuse Neglect Child Labour (ICANCL) Group and IAP, 7 December 2018, New Delhi

37. Psychology effects of gadgets, Faculty Development Programme on Challenges before the Academia in the era of Gadgets, E-communication and Artificial Intelligence, Hansraj College, University of Delhi, 20 December 2018, New Delhi
38. Understanding Personality Disorders, Mental health seminar NGO, You, Me and Mental Health, 15 February 2019, New Delhi
39. Need for national strategy for suicide prevention in India, National Strategy for Suicide Prevention, MoHFW, 15 February 2019, New Delhi
40. Managing examination stress, Facebook Live Streaming, NCPCR for Pariksha Pe Charcha, 28 February 2019, New Delhi
41. Global and National initiatives on mental health, International Course on Public Health Approaches to NCD’s at Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, World NCD Federation, 6 March 2019, Chandigarh
42. Overcoming mental stress, Workshop on ‘360 Degree Enhancement: Best Practices on Managerial and IT Tools for the Non-Teaching Staff’, 12 March 2019, Delhi
43. Prevention and management of mental health issues in emergencies, Workshop on Mental Health and Psychosocial Support Following Floods in Kerala, funded by WHO, 26 March 2019, Cochin, Kerala
44. Capacity building for mental health and psychosocial support following disasters in India, Workshop on Mental Health and Psychosocial Support Following Floods in Kerala, 27 March 2019, Cochin, Kerala
45. Does mhealth technology enhance mental-P health service delivery in rural communities? Policy Symposia on SMART Mental Health Programme, George Institute of Global Health-India, 28 March 2019, New Delhi
46. Do anti-stigma programmes improve mental health help seeking among patients/users?-PD, Policy Symposia on SMART Mental Health Programme, George Institute of Global Health India, 28 March 2019, New Delhi
47. Specific learning disorder—A current update from a developing country, 23rd World congress of the International Association for Child and Adolescent Psychiatry and Allied Professions (IACAPAP), 24 July 2018, Prague, Czech Republic
48. Study on gap analysis in mental health care services in Child Care Institutions (CCI) of Delhi state—Overview, Symposium at 71st Annual National Conference of Indian Psychiatry Society (ANCIPS), 1 February 2019, Lucknow
49. Health and education-GCRF research priorities, UKRI International Development Peer Review College—Global Engagement Meeting, 6 February 2019, Cairo, Egypt

Nand Kumar
1. Communication with the non-psychiatrist clinician—Evolving a common language, National CME on Consultation—Liaison Psychiatry, 9 April 2018, New Delhi
4. Application of rTMS in OCD: AIIMS experience, Academic Conclave on Interventions in Neuropsychiatric Disorder, 9 and 10 June 2018, Mumbai
5. Neuromodulation: Recent updates, National Midterm CME, 11 and 12 August 2018, Orchha
6. rTMS: Nuts and bots, Workshop on Ketamine and Neuromodulation, 1 September 2018, Srinagar
8. Effect of high-frequency repetitive Transcranial Magnetic Stimulation (rTMS) in cognitive function and predominantly negative symptoms in person suffering from Schizophrenia in a randomized sham controlled double blind trial, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 31 January-3 February 2019, Lucknow

Mamta Sood
1. Principles of handling psychiatric comorbidities in non-communicable diseases, National CME on Consultation Liaison Psychiatry, 9 April 2018, New Delhi
2. Determination and treatment decisions for mental illness, Orientation programme on Mental Health, 28 July 2018, Delhi
3. How concept of creativity can be used for promotion of mental health and in prevention and management of mental illness, Annual Conference of the Indian Psychiatric Society, North Zone, 6-7 October 2018, Chandigarh
5. Gender issues and mental health, Regional Congress of the World Association of Social Psychiatry, 8-9 December 2018, Kochi
6. Training programme and curriculum for Medical Officers training in psychiatry, Meeting of officials and experts to establish mental hospital in South Sudan, 4 January 2019, Juba, South Sudan
7. Health seeking behaviour and anthropology: Recording mental illness narratives, Ethnography Workshop for Research Scholars, 11-22 March 2019, Delhi

Sujata Satapathy
1. Professional Stress and Conflict Management, Mental Health at Workplace for DNS and ANS, 14-18 May 2018, New Delhi
4. Psychological impact of child sexual abuse, Case studies based Multi-Disciplinary Discussion on Child Sexual Abuse for Members of Parliaments and Parliament House, 2 August 2018, New Delhi
6. Barriers to communication, Workshop on Communication Skills for Nursing Personnel, 26 February 2019, New Delhi

Raman Deep
1. How to communicate effectively in consult letters, National CME on Consultation Liaison Psychiatry, 9 April 2018, New Delhi
2. Determination and treatment decisions for mental illness, Orientation Programme on Mental Health for Judicial Officers of DJS, DJHS, and other stakeholders like Jail Superintendents, Police Personnel etc, 5 May 2018, India
3. Say NO to harrasment, Residents’ wellness programme for first year residents’ batches in 2018-2019, 4 May 2018; 9 August 2018; 27 September 2018; 9 March 2019, New Delhi
4. Competence to stand trial, Workshop on Capacity assessment in criminal cases in post graduate development programme 2018, 30 June 2018, Faridabad
5. Rights of mentally ill persons in Mental health care act 2017 and rules 2018, Experts meeting for discussion on ‘mental health care act 2017’ and its implementation in central government institutes in Delhi, 5 October 2018, New Delhi
6. Suicide and violence in young persons, World Mental Health Day Public Lecture and Panel discussion on “Mental health and young people in a changing world”, 9 October 2018, New Delhi

Koushik Sinha Deb
1. Psychopharmacology in consultation liaison setting, National CME on Consultation Liaison Psychiatry, 9 April 2018, Delhi
2. Verbal and non-verbal communication in clinical situations, CMET Training for New Joined Nurses, 17 May 2018, New Delhi
3. Capacity assessment in criminal cases, Postgraduate Development Program, 2018—Indian Psychiatric Society-North Zone, 30 June 2018, Faridabad
4. Panel discussion for sensitizing Judicial Officers, Second Orientation Program on Mental Health—Delhi, Judicial Academy, Dwarka, 12 July 2018, New Delhi
5. Depression, burnout and suicide—Safety nets: Sensitizing residents in preventing Suicide, Wellness Program for Post-Graduate Trainees, 9 August 2018, 27 September 2018, 9 March 2019, New Delhi
8. Somatoform disorders, integration of psychiatry with other subjects, Workshop on Providing Feedback to MCI for Undergraduate Curriculum, 5 December 2018, New Delhi
9. Overview of mental disorders and the importance of early management, Mental Health Public Lecture of the Rajasthan Kalyan Parishad: Mental Tension—Reason, Diagnosis and Preventive Measures, 23 December 2018, Noida
10. Artificial Intelligence in psychiatry, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS 2019), 31 January-3 February 2019, Lucknow
Rohit Verma

2. Common reasons for psychiatric consultation, National CME on Consultation-Liaison Psychiatry, 9 April 2018, New Delhi
5. rTMS: An evolving approach to cater mental well-being, 3rd Global Conference of Biological Psychiatry, 23-26 August 2018, Mumbai
6. Role of tDCS in neuropsychiatric conditions, 33rd Annual Conference of Indian Psychiatric Society Rajasthan Chapter, 20-21 October 2018, Bikaner
8. Non-invasive neurophysiology and neuromodulation approaches—Role of Clinical psychologists, 64th Annual National Conference of the Association of Physiologists and Pharmacologists of India (APPICON 2018), 27 November-1 December 2018, Manipal, Karnataka
9. TMS: Hands-on training workshop, Workshop and Certificate Course on repetitive Transcranial Magnetic Stimulation (rTMS), 15 December 2018, New Delhi

Bichitra Patra

1. Managing the agitated patient in the emergency setting, CME on Consultation Liaison Psychiatry, 9 April, 2018, New Delhi

Gagan Hans

1. Principles of handling psychiatric co-morbidities in non-communicable diseases: Conclusions and public health perspectives, National CME on Consultation-Liaison Psychiatry, 9 April 2018, New Delhi
2. Burnout and work-life balance, Wellness Program for Post Graduate Trainees, 9 August 2018 and 9 March 2019, New Delhi
3. Disaster management at policy level: What we have achieved and what can be done, National Conference of Indian Association of Social Psychiatry, 16-18 November 2018, Rohtak
4. Personality disorders, Psychosexual and gender identity disorders, Miscellaneous, Workshop on Providing Feedback to MCI for Undergraduate Curriculum; 5 December 2018, New Delhi
5. Ketamine use in treatment resistant depression, 71st Annual National Conference of Indian Psychiatric Society, 31 January-3 February 2019, Lucknow

Renu Sharma

1. Multidimensional psychological trauma assessment and intervention for CSA, Training workshop for counsellors, NGO’s workers, School Inspectors, Asha Workers and Child Care Institutions, 24 August 2018, Guwahati
2. Multidimensional psychological trauma assessment and intervention for CSA, Training workshop for Counsellors of Child Care Institutions, 28 August 2018, Aizawal, Mizoram

Oral Papers/Posters presented

1. Sharan P, Current status of child and adolescent mental health burden and resources in India, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic
5. Sagar R, Bhargava R, Patra BN, Sahu A, Specific learning disorder: A current update from a developing country, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic

6. Patra BN, Sahu A, Bhargava R, Sagar R, Etiological perspective and co-morbidities with SLD, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic

7. Choudhary V, Satpathy S, Sagar R, Development of a multi-dimensional scale to measure impact of trauma on children with sexual abuse (MSCSA): A pilot study, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic

8. Choudhary V, Sathpathy S, Sagar R, Psychological trauma indicators in the human figure drawings of sexually abused and non-abused children in India: A comparative study, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic

9. Mahapatra A, Choudhary V, Sagar R, Assessment of caregiver needs and its psychosocial correlates in parents of children suffering from neurodevelopmental disorder: An Indian perspective, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic

10. Bhargava R, Sagar R, Epidemiology of developmental disorder in India, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic


13. Patil V, Sahu A, Sagar R, Mental health services for children and adolescents with intellectual disability: A review of literature, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic

14. Sagar S, Mir N, Sahu A, Kumar S, Gupta A, Sagar R, Burden of post-traumatic amputations in children and adolescent at level 1 Trauma Center of India: A neglected psychosocial entity, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic

15. Kaushal T, Satpathy S, Chadda RK, Bakshi S, Sagar R, Sapra S, Psychological outcome of care giving in childhood cancer: A study from India, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic


18. Tolahunase M, Chaurasia P, Sagar R, Dada R, Impact of Yoga and Meditation-Based Lifestyle Intervention on Depression, Quality of Life, And Cellular Aging in Infertile Couples, ASRM 2018—74th American Society for Reproductive Medicine Scientific Congress and Expo, USA, 6-10 October 2018, Denver, Colorado, USA


41. Gudwani S, Upadhayay P, Sharma K, Sagar R, Dhamija RK, Kumaran SS, Cine imaging using water (Saline) bolus for investigating swallowing problems (Dysphagia) in Parkinson’s Disease, ISMRM Workshop on Accessible MRI for the World India International Centre, 29-31 March 2019, New Delhi

42. Satapathy S, Full day workshop on Trauma-Focused CBT for Child Sexual Abuse (CSA), 3rd International Conference on Cognitive Behavioural Interventions, 25-29 September 2018, Gurgaon


47. Bohit A, Pramanik R, Deb KS, Assessment of distress, anxiety and depression symptoms among cancer patients and their relatives of suspected familial cancer visiting IRCH genetic clinic for counselling and analysis of the effect of genetic counselling on them, 8th Nursing Symposium on Cancer Care, 24 and 25 May 2018, Hong Kong
55. Patra BN, Epidemiology of emotional and behavioural disorders in children and adolescents, 23rd World Congress of International Association for Child and Adolescent Psychiatry and Allied Professions, July 2018, Prague, Czech Republic
56. Sagar R, Patra BN, Gupta P, Kumar M (Symposium), Study on Gap Analysis in Mental Health Care Services in Child Care Institutions of Delhi State, Annual National Conference of Indian Psychiatric Society (ANCIPS), 31 January-3 February 2019, Lucknow

RESEARCH

Funded projects

Ongoing

2. Detection of New Psychoactive Substances among Substance Abuse Treatment Seekers in India—Multi Centric Study, RK Chadda, Department of Revenue, Government of India, 3 years, 2017-2020, Rs 651 lakhs
3. Development of Panic and Anxiety Indian Questionnaire (PANIQ), Pratap Sharan, ICMR, 3 years, 2018-2020, Rs 180 lakhs
4. Psycho-social outcome and Cognitive functions in Bipolar disorder: A longitudinal study, Rajesh Sagar, DST, 3 years, 2016-2019, Rs 28.53 lakhs
5. Impact of Post-Partum Depression and Anxiety on Infant Growth and Development: A Community Cohort Study, Rajesh Sagar, Self (extension of previous project), 3 years, 2016-2019, Rs 8.57 lakhs
6. Psychiatric morbidity and its early antecedents in the New Delhi Birth Cohort, Rajesh Sagar, QED and WHO-SEARO, 3 years, 2018-2020, Rs 8.67 lakhs
7. Clinical study, translation, cross cultural adaptation and development of norms of Cognitive Assessment System (COGNISTAT) for persons from Northern India, Rajesh Sagar, Cognitive Health Rehabilitation System LLP, 1 year, 2018-2019, Rs 7.92 lakhs
8. Center for Advance Research and Excellence (CARE) in Neuromodulation on Mental Health, Nand Kumar, ICMR, 5 years, 2019-2024, Rs 450 lakhs
9. To study the effect of high-frequency repetitive Transcranial Magnetic Stimulation (rTMS) in cognitive function and predominately negative symptoms in people suffering from Schizophrenia in Randomized Sham Controlled Double Blind Trial, Nand Kumar, DST, 3 years, 2015-2018, Rs 50.56 lakhs
11. Feasibility and Efficacy Testing of Newly Developed AIIMS CTT (Non-computer based Cognitive Training Intervention Kit) for 6-11 years Old Children with ADHD, Sujata Satapathy, AIIMS, 2 years, 2018-2020, Rs 3.6 lakhs
12. Psychological Trauma Resilience in Children and Adolescents: Development and Psychometric Properties of a Multidimensional Scale, Sujata Satapathy, DST/CSRI, 3 years, 2017-2019, Rs 43.17 lakhs
13. Biomarkers of Lithium response in Bipolar disorder: Assessment of the clinical markers, peripheral blood based markers and gray matter volume in individuals with bipolar disorder on long-term lithium prophylaxis, Raman Deep, DST:ECRA, 3 years, 2018-2020, Rs 21.21 lakhs
14. Diffuse optical tomography based cortical analysis for evaluating auditory semantic and prosodic content, language acquisition and facial identification as determinants of emotion recognition in schizophrenia, Rohit Verma, DST CSRI Research Grant, 3 years, 2018-2021, Rs 51.98 lakhs
15. A study of acute and longitudinal effects of brain stimulation in treatment of depression and schizophrenia, Rohit Verma, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
16. H1-MR spectroscopy based evaluation of metabolic abnormalities in right dorsolateral prefrontal cortex in patients with obsessive compulsive disorder- a pilot study, Gagan Hans, AIIMS, 2 years, 2017-2019, Rs 0.9 lakhs
17. Translation and validation of the Teen Addiction Severity Index on Indian population, Renu Sharma, AIIMS, 2 years and 3 months, 2015-2018, Rs 2 lakhs

Completed

1. A study of brain activation using functional near infrared spectroscopy and quantitative electro-encephalographic spectral analysis in catatonia, Rohit Verma, AIIMS, 3 years, 2015-2018, Rs 2.25 lakhs
2. Field testing of ICD-11 proposals for sexual disorders and sexual health in India, Pratap Sharan, WHO, 3 years, 2016-2018, Rs 12 lakhs
3. Development of Identification Instrument for Prolonged Grief Disorder in SEAR countries, Pratap Sharan, WHO SEARO, 2 years, 2016-2018, Rs 4 lakhs

Departmental projects

Ongoing

1. Development of a multidimensional trauma scale and psychological trauma focused intervention for child sexual abuse
2. Development of home based intervention for specific learning disorder
3. Development of cognitive behavioral based intervention module for adolescents in conflict with law
4. Study of immunological, oxidative markers and cognitive function in ADHD
5. Preliminary assessment of the therapeutic efficacy of intermittent Theta-Burst Magnetic Stimulation (iTBS) in treatment resistant depression: A double blind sham controlled study
6. Repetitive transcranial magnetic stimulation in medication non-responsive obsessive compulsive disorder: A randomized double blind parallel group sham controlled trial to compare different sites of stimulation
7. Child sexual abuse: Development of multidimensional scale and psychological trauma focused intervention module
8. Psycho-behavioural and cognitive functioning of children with acute lymphoblastic leukaemia: Development and feasibility of composite psychological intervention module
9. Psychological trauma resilience in children and adolescents: Development and psychometric properties of a multidimensional scale
10. Psychiatric morbidity, quality of sleep, and mental adjustment style among adult myeloma patients in active treatment and maintenance phase
11. Assessment of Gray Matter Volume and White Matter Integrity in patients with suicidality in Bipolar disorder type I
12. Repetitive transcranial magnetic stimulation in medication non-responsive obsessive-compulsive disorder: A randomized double blind parallel group sham controlled trial to compare different sites of stimulation
13. Neuro-physiological and neuro-cognitive markers of prefrontal functioning as predictors of treatment response in first episode psychosis
14. Effects of brain stimulation in treatment of depression: A diffuse optical tomography study of acute and longitudinal effects on brain function
15. A pilot randomized controlled trial of targeted prefrontal cortex modulation with anodal transcranial Direct Current Stimulation (tDCS) for examining task dependent effect on executive functioning
16. A pilot randomized controlled trial of targeted prefrontal cortex modulation with bilateral transcranial Direct Current Stimulation (tDCS) for reducing craving in patients with opioid dependence
17. Behavioral effects of transcranial Direct Current Stimulation (tDCS) induced dorsolateral prefrontal cortex plasticity in alcohol dependence
18. Effects of brain stimulation in treatment of depression: A diffuse optical tomography study of acute and longitudinal effects on brain function
19. Neural correlates of obsessive compulsive disorder and its washing subtype: A cross-sectional fMRI study
20. A study of serum brain-derived neurotrophic factor levels in patients of schizophrenia on clozapine therapy and its association with clinical profile
21. A comparative study of neurochemical alteration in schizophrenia, obsessive compulsive disorder and schizophrenia with obsessive compulsive symptoms
22. Metacognitive therapy in depressive disorders

Completed

1. Prefrontal cortical activity in children with ADHD: A functional Near Infrared Spectroscopy (fNIRS) study
2. Emotional and behavioural health status associated with HIV status disclosure in children with HIV infection aged 8-18 years
3. Transcranial Direct Current Stimulation (tDCS) in treatment resistant obsessive-compulsive disorder: An open label trial
4. Neurochemical profile using magnetic resonance spectroscopy in subjects with Bipolar disorder type-I on Lithium Prophylaxis: Assessing the relationship to Lithium response
5. Assessment of knowledge, attitude and medication adherence pertaining to lithium prophylactic therapy in patients with bipolar disorder: Relationship to clinical variables
6. Serum BDNF levels in patients of first episode Schizophrenia: A pilot study
7. A pilot study of resting state quantitative electroencephalographic spectral analysis in Schizophrenia
8. A study on socio-cultural perspectives of the family care giving in patients with Schizophrenia
9. A cross-sectional study of association of illness disability and cognitive functioning in patients to caregiver needs in first episode Schizophrenia
10. A study of knowledge and attitude regarding ECT and rTMS among patients and their caregivers
11. To assess change in knowledge towards mental illness and treatment among caregivers of patient’ with severe mental illness in a tertiary mental health care in-patient setting: A case-control study
12. A cross-sectional study about knowledge towards mental illness and treatment in patients with severe mental illness and their caregivers
13. Effect of cognitive and emotional stress in patients of multi-somatoform pain disorder: A FMRI based case control study

14. An observational study of side effects of selective serotonin reuptake inhibitors in patients attending psychiatric outpatient clinic

15. Evaluation of the effect of prosthodontic rehabilitation on quality of life and psychological distress in maxillectomy patients—A preliminary study

16. A study to assess knowledge regarding identification of delirium in various ICUs patients among staff nurses working in AIIMS, New Delhi

17. Depression and anxiety disorders in patients with type 2 diabetes mellitus and its relation with glycemic control, quality of life and disability

18. A study of the association of anxiety and depression with cardiac arrhythmia in post myocardial infarction patients

19. Assessment of needs, scope and focus for Consultation Liaison Services at AIIMS, New Delhi

**Collaborative projects**

**Ongoing**

1. A comparative study of neurochemical alteration on H1 MRS in schizophrenia, obsessive compulsive disorder and schizophrenia with obsessive compulsive symptoms, NMR

2. A cross sectional study to assess the severity of chronic pruritus and its effect on quality of life using the 12-item pruritus severity scale and the 5-ditch scale, Dermatology

3. A pilot multicentre open label parallel arm RCT evaluating whether yoga can delay initiation of insulin therapy in patients with type 2 diabetes mellitus with suboptimal glycemic control on near maximal oral drugs and/or who may require insulin therapy in near future, Endocrinology

4. A prospective study comparing outcomes and quality of life after laparoscopic donor nephrectomy versus open donor nephrectomy, Surgical Disciplines

5. A randomised, two arm, comparative, clinical study to evaluate the effectiveness of early integrated palliative care versus routine oncological care in advanced sarcoma patients in tertiary care centre in India, Medical Oncology, IRCH

6. A randomized control trial to study the impact of Yoga intervention in lower limb amputees following trauma in relation to postsurgical outcome, behavior and quality of life at Level I Trauma Centre, JPNATC

7. A study of allocentric neural navigation process schematic utilizing dynamic optic array for prospective control, Physiology

8. A study of autonomic functions in adolescents with specific learning disorder (Dyslexia) with and without comorbid ADHD, Paediatrics

9. A study to assess the factors influencing delay in treatment seeking in patients of common mental disorders, College of Nursing

10. A three arm randomized controlled study to compare sexual functions following open mesh hernioplasty, Laparoscopic Totally Extra Peritoneal (TEP) and Trans Abdominal Pre-Peritoneal (TAPP) repair of Groin Hernia, Surgical disciplines

11. A translational randomized trial of yoga-based lifestyle intervention for major depressive disorder (MDD) management in India and analyzing biomarkers of cellular aging associated with it, Anatomy

12. AADAR-Dementia Science Program (DSP), Biotechnology

13. Anatomical and functional changes in chronic central serous chorioretinopathy patients following various treatment modalities, Ophthalmology

14. Anxiety, stress and depression and quality of life assessment in patients undergoing keratoplasty surgery, Dr RP Centre

15. Assessment of cognitive, neuroanatomical and neurofunctional abnormalities in adults with type 1 Diabetes, Endocrinology

16. Assessment of distress, anxiety and depression symptoms amongst patients of suspected familial cancer visiting the IRCH genetic clinic for counselling and analysis of the effect of genetic counselling on them: A prospective cohort study, Medical Oncology, IRCH

17. Assessment of emotional and behavioral problems and quality of life among children and adolescents with cleft lip and palate, Centre of Dental Education and Research

18. Assessment of mental health services in district Faridabad, Haryana—A mixed method study, Centre for Community Medicine
19. Association between parental growth patterns and chronic disease risk in their children—An intergenerational study in the New Delhi Birth Cohort, Public Health Foundation of India
20. Association of common mental disorders with diabetes mellitus—A Community based Case-control Study in North India, Centre for Community Medicine
21. Burden and associated factors of chronic multimorbidity among adults (>30 years) in rural Ballabhgarh, North India, Centre for Community Medicine
22. Central serous chorioretinopathy and Meditation: Functional and morphological outcome study, Ophthalmology
23. Cleft lip and palate anomaly in India; Clinical profile risk factors and current status of treatment: A hospital-based study, Main Phase, Centre for Dental and Educational Research
24. Collaborative care for depression and diabetes in India, Endocrinology
25. Common mental disorders and related mental health literacy among adolescents in an urban area of Delhi, Centre for Community Medicine
26. Comparison of “Multigene hereditary panel testing” profiles in breast cancer patients qualifying and not qualifying the NCCN 2018 criteria for genetic testing: A prospective study in North Indian population, Medical Oncology, IRCH
27. Comparison of effect of antidepressants on neurodegeneration in patients with depression, Pharmacology
28. Comparison of quality of life after single stage vs two stage management of patients with concomitant gall stones and common bile duct stones: A prospective randomized control trial, Surgical Disciplines
29. Content analysis and linguistic analysis of suicide notes, Forensic Medicine and Toxicology
30. Convergent validation of proposed behavioural indicators of intellectual and adaptive behaviour functioning for ICD-11, University of Ottawa and World Health Organization, Geneva
31. Correlation between preoperative CSF melatonin levels and post-operative delirium in geriatric hip fractures-intra-mural funding, Orthopaedics
32. Correlation of cortical sources and brain iron during rest and visuospatial working memory in attention deficit hyperactive disorder, Physiology
33. Depressive disorders amongst adolescents in rural Ballabhgarh: A community based study, Centre for Community Medicine
34. Development and assessment of efficacy and acceptability of comprehensive treatment module in the management of patients with medially unexplained physical symptoms, Medicine
35. DTI, fMRI and qEEG correlates of cognition and behaviour in children and adolescents with well controlled non-lesional epilepsy: An observational study, Paediatric Neurology
36. EEG microstates of perceptual reversals of emotional stimuli in schizophrenia during binocular rivalry, Physiology
37. Effect of 30 minutes of YOGA and Meditation and life style modification in comparison to standard treatment on person with mild to moderate depressive disorders, Mental Health Foundation (India)
38. Effect of cognitive and emotional stress in patients of multi-somatoform disorder: A fMRI based case-control study, Nuclear Magnetic Resonance
39. Effect of EMF radiation due to mobile phone use on sleep and neurocognitive functions: A molecular approach, Medicine
40. Effect of integrated Yoga on ART outcomes and Psychological stress in patients undergoing In-Vitro-Fertilization (IVF) cycles: A prospective randomized controlled trial, Obstetrics and Gynaecology
41. Effect of Mindfulness Based Stress Reduction (MBSR) on Optic Disc Perfusion using OCT Angiography in Glaucoma Patients: A randomized controlled trial, Dr Rajendra Prasad Centre for Ophthalmic Sciences
42. Effect of paravertebral anaesthesia on quality of life scores and circulating tumour cells in breast cancer patients, Anaesthesia
43. Effect of Virtual Reality Therapy (VRT) in improving balance and quality of life in lower limb amputation, Trauma Centre
44. Effect of Yoga on psychological, cognitive and glycemic control in patients with T2DM and depression: Two arm parallel randomized controlled trial, Endocrinology
45. Effects of a preoperative carbohydrate drink on postoperative vomiting in paediatric strabismus surgery: A randomised controlled observer blinded trial, Anesthesiology
46. Effects of Yoga based lifestyle interventions on biomarkers of cellular aging in patients with depression, Laboratory for Molecular Reproduction and Genetics
47. Efficacy of a Family based comprehensive Yoga Program for weight reduction among over-weight children and Adolescents, Paediatrics, AYUSH
48. Efficacy of Yoga on symptom severity and quality of life of patients suffering from pain predominant Medically Unexplained Physical Symptoms (MUPS), Medicine
49. Evaluation of eating disorders and their effect on metabolic parameters and glycemic control in adult patients with diabetes mellitus type 2, Endocrinology
50. Evaluation of health-related quality of life in nystagmus patients, Dr RP Centre for Ophthalmic Sciences
51. Evaluation of prevalence, regional phenotypic variation, comorbidities, risk factors and the variations in response to different therapeutic modalities among Indian women with Polycystic Ovary Syndrome (PCOS): A multicenter study across India, Endocrinology
52. Extent of internet use amongst adolescence with non-psychotic disorders: A case control study, AIIMS, New Delhi
53. Feasibility of introducing yoga and its effect on stress and perceived well-being on new medical under-graduate students of AIIMS, New Delhi, Centre for Community Medicine
54. Genetic association of cytokines with suicidal behavior in Indian population, Forensic Medicine and Toxicology
55. Genetic polymorphisms of serotonergic pathways genes and their association studies with disease severity and response to escitalopram treatment in patients with major depressive disorder, Institute of Genomics and Integrative Biology (IGIB)
56. Identification of biomarkers for cognitive impairment in mild and moderate traumatic brain injury patients, Trauma Centre
57. Impact of behavior and temperament on food intake and diet quality of adolescents studying in public schools of Delhi, Delhi University
58. Mapping functional and biochemical correlates in brain of Parkinson’s Patient with Mild Cognitive Impairment, Nuclear Magnetic Resonance
60. Neural correlates of obsessive-compulsive disorder and its washing subtype: A cross-sectional fmRI study, Nuclear Magnetic Resonance
61. Neurocognitive rehabilitation modules for patients with schizophrenia, Neuropsychology, CN Centre
62. Neuropsychiatric adverse effects of antiepileptic drugs: Focus on levetiracetam, Pharmacology
63. New Delhi Birth Cohort—Follow-up studies to Assess Association of Early Life Growth Patterns on Lung function, Cardio metabolic risk factors and mental health in a family cohort, Public Health Foundation of India
64. Optimizing diet and insulin regimes in children with type 1 diabetes in low-resource settings, Paediatrics
65. Prevalence and factors affecting preoperative anxiety, depression, and distress in cancer patients: A prospective cross-sectional study, Onco-Anaesthesia and Palliative Medicine
66. Prevalence of common mental disorders among pregnant women in rural Ballabhgarh, Haryana, Centre for Community Medicine
67. Prevalence of mental health problems (anxiety, depression and stress reactions) in mothers of pre-term infants NICU—A cross sectional study, Obstetrics and Gynaecology
68. Primary versus delayed primary closure in patients undergoing lower limb amputation following trauma: A randomized control study, Trauma Surgery
69. Prospective pilot study evaluating incidence of postoperative cognitive decline in older adults comparing isoflurane and desflurane, Anesthesiology
70. Prospective randomized controlled study comparing long term outcome, chronic pain, quality of life and cost effectiveness following laparoscopic repair of incision and ventral hernias with different techniques of Mesh Fixation—A pilot study, Surgical Disciplines
71. Prospective randomized controlled study comparing long term outcomes, chronic pain, quality of life and cost effectiveness following two techniques of mesh fixation—Non-absorbable versus absorbable tackers for laparoscopic mesh repair of incisional and ventral hernias, Surgical Disciplines
72. Prospective randomized controlled study to compare the outcome of standard four port laparoscopic cholecystectomy with single incision laparoscopic cholecystectomy in patients with Gall Stone Disease, Surgical Disciplines
73. Prospective randomized controlled trial comparing the effects of intraoperative dexmedetomidine and lignocaine administration over the incidence of post-operative cognitive decline in elderly, Anaesthesiology
74. Psychiatric morbidity and cognitive functioning in children and adolescents with bronchial asthma
75. Psychiatric morbidity in HIV/TB co-infection, Medicine and Microbiology
76. Psycho-behavioural and cognitive functioning of children with acute lymphoblastic leukemia: Development of a composite psychological intervention module
77. QEEG based neural correlates and microstates of attention and interference in ADHD—An endophenotypic marker, Physiology
78. QEEG based neural correlates and microstates of attention and interference in ADHD: An endophenotypic marker, Physiology
79. Qualitative study exploring perspectives on the International Classification of Diseases (11th revision); Using lived experience to improve mental health Diagnosis in India, World Health Organization, Geneva, Switzerland
80. Quality of life following BCS and mastectomy along with sentinel node biopsy in operable breast cancer, Surgery
81. Reconstruction of post-traumatic facial defects using adipose tissue derived mesenchymal stem cells seeded on 3D Printed Hydroxyapatite Scaffold guided by CAD Models in Zygomatico-orbito maxillary complex fractures, Trauma Surgery
82. Severity and pattern of early childhood caries and parental stress among pre-school children and its association with various behavioral factors, A hospital-based study, Centre of Dental Education and Research
83. Study of clock genes in rat model of mania-like behavior, Neurochemistry
84. Study of cortical sources of EEG and brain iron levels during rest and visuospatial working memory in Attention Deficit Hyperactivity Disorder (ADHD), Physiology
85. Study of molecular and peripheral blood biomarkers and their utility to diagnose mild and moderate Traumatic Brain Injury (TBI) induced cognitive impairment, Laboratory Medicine
86. Sustainable psychological first aid services in Tihar Prison, Mental Health Foundation (India)
87. Study of molecular and peripheral blood biomarkers and their utility to diagnose mild and moderate Traumatic Brain Injury (TBI) induced cognitive impairment, Laboratory Medicine
88. The Integrative Systematic Palliative Care (ISPC) vs Standard oncology care in advanced non-small cell lung cancer at a tertiary care centre in India: A prospective randomized controlled trial, Onco-Anaesthesia and Palliative Medicine
89. To correlate functional near infra-red spectroscopy measurement of auditory cortex activation with auditory verbal outcome in prelingual profound sensorineural hearing loss patients after cochlear implantation, Otorhinolaryngology
90. To determine the association between decreased cerebral blood flow in the prefrontal cortex intraoperatively and incidence of postoperative emergence delirium in children (2-5 years) induced and maintained with Sevoflurane: An tNIRS based Observational Study, Otorhinolaryngology
91. To develop an Oral Health Toolkit for Paediatric Oncology Patients (OHTPOP) and compare its effectiveness for a better oral health status and lesser oral complications versus standard of care, Centre of Dental Education and Research
92. To evaluate results of soft tissue reconstruction and augmentation with structural fat grafting in patients with post traumatic facial disfigurement, Trauma Surgery, JPNATC
93. To study clinical and immunological parameters in predicting short term outcomes in polytrauma patients admitted to Trauma Surgery, Trauma Surgery
94. To study management, outcomes and quality of life in patients with pelvic fracture at level 1 Trauma Center, Trauma Surgery
95. To study the effect of mobile phones on well-being, sleep and cognitive functions, Medicine
96. To study the effect of Yoga on Pulmonary Functions, Respiratory muscle strength and endurance, Chest wall mobility, Inflammatory markers and quality of life in blunt chest trauma patients and their correlation with Thoracic Trauma Severity Score at level I Trauma Centre, Trauma Surgery
97. Toxicological analysis and distribution pattern of alcohol and different drugs in various biological samples and their neurobiological effects in suicidal deaths, Forensic Medicine
98. Translational application of novel clinically accessible biological predictors to improved identification of mild and moderate Traumatic Brain Injury (TBI) induced neuropsychological impairment, Laboratory Medicine, JPNATC
99. Two arm parallel open-label randomized controlled add on trial to investigate the efficacy of Shirodhara (Ayurvedic Oil-Dropping Treatment) in the subjects with Chronic Insomnia Disorder, CIMR
100. Utility of novel Coated Platelets as a marker for early prognostication of neurocognitive impairment following traumatic injury, Trauma Centre, JPNATC

**Completed**

1. Proteomics of CSF for the identification of protein signatures in the dopamine dictated states of schizophrenia and Parkinson’s Disease, Biophysics
2. Real time localization of brain area using Neuro navigation for TMS application in Stroke and Obsessive Compulsive Disorders patients, IIT Delhi
3. Perioperative anxiety and stress in children and parents undergoing congenital cardiac surgery: Effect of brief intervention, Department of Cardiac Anaesthesia, AIIMS, New Delhi
4. Development of A Scale to Measure the Psychosocial Impact of Vitiligo in Family Members of Patients, Department of Dermatology, AIIMS, New Delhi
5. Association of inflammatory cytokines with suicidal deaths: A hospital based comparative cross-sectional study, Department of Forensic Sciences and Toxicology, AIIMS, New Delhi
6. Clinical and biochemical evaluation for depression in patients with recently diagnosed head and neck cancer (Funded by AIIMS, Intramural Research Grant), Department of ENT, AIIMS, New Delhi
7. Study of peripheral stress biomarkers (S100B, 8-Isoprostane and 8-hydroxy-2-deoxyguanosine) in Major Depression—Department of Lab Medicine
8. Study of polymorphisms in TNF-α [308 G/A], IL-1β [511 C/T], and IL-6 [174 G/C] genes in patients of Depression: Their association and clinical severity, Department of Lab Medicine
9. To study the effect of mobile phone use on well being, sleep and cognitive function, Department of Medicine
10. HIV associated neurocognitive decline and brain metabolism, Department of Medicine
11. Impact of depression and anxiety symptoms on food intake of adolescents (13-15 years) studying in public schools of Delhi, Department of Home Economics, University of Delhi
12. To study clinical and immunological parameters in predicting short term outcomes in polytrauma patients admitted to Trauma Surgery
13. To assess the effect of repetitive Transcranial Magnetic Stimulation (rTMS) on cognitive functioning in patients with moderate TBI

**PUBLICATIONS**

**Journals:** 80  **Abstracts:** 25  **Chapters in books:** 15  **Books:** 1

**PATIENT CARE**

- **Special Clinics:**
  - Psychosomatic Clinic: Once in a week
  - Common Mental Disorders Clinic: Once in a week
  - Child and adolescent psychiatric specialty services
  - Severe Mental Disorders Clinic: Once in a week
  - Brain Stimulation/TMS clinic on Thursday: Once in a week
  - Neuropsychiatry OPD in CN Centre on Tuesday: Once in a week
  - Psychiatry services at CRHSP, Ballabgarh
  - Dual Diagnosis Clinic: Once in a week

- **Ballabgarh Psychiatry OPD services:** 3,974 New patients and 6,000 old patients were provided psychiatry services.

- **Consultation liaison services**

- **Public lecture:** On World Mental Health Day, 9 October 2018

**Facilities in Department (Special Labs)**

- Upgradation of Brain Mapping facility—Added fNIRS system to the existing QEEG system for development of a state-of-the-art facility for brain mapping
- Upgradation of ECT clinic—Improved data collection in functioning of ECT; Added utility of Ketamine use for increasing ECT effectiveness
- Advanced signal analysis of Electroencephalography—in collaboration with Department of Computer Sciences, IIT, Delhi

**Community Services/Camps—Community Services/Camps**

- AIIMS, New Delhi; 22 May 2018: *Overcoming Schizophrenia*
- Hauz Khas Police Station; 7 August 2018: *Managing Anxiety*
AWARDS, HONOURS AND SIGNIFICANT EVENTS

Rakesh Kumar Chadda was expert member, Government of India Team to design mental hospital in South Sudan. Visited South Sudan on 2-5 January 2019 for site inspection as a member of team; Venkoba Rao Oration delivered at the 25th National Conference of the Indian Association for Social Psychiatry, Rohtak, 16-18 November 2018; Member, Editorial Board, BJIP International; Chair, Awards Committee, Indian Association for Social Psychiatry, 2018-2021; Chair, Technical Resource Group on Injection Drug Users; Member, Nasha Mukti Abhiyan Task Force under National Health Policy (Ministry of Health and Family Welfare); Member, Selection Committee for National Awards for Outstanding Services in the field of Prevention of Alcoholism and Drug Abuse (Ministry of Social Justice and Empowerment); Was member, selection committee for AIIMS, Jodhpur, Bhubaneswar, Gorakhpur; University of Health Sciences, Rohtak; KGGMU, Lucknow; Has been Advisor to UPSC in selection committee; Assisted NBE in different roles; Member, Dean (Research) Committee.

Professor Pratap Sharan is the Professor-in-Charge of Student Welfare at AIIMS; member of the International Advisory Group for Training and Implementation for ICD-11 Mental, Behavioural and Neurodevelopmental Disorders (2018 onwards); the Vice President of the Indian Association for Social Psychiatry (IASP, 2018-2020); and the Co-Chair for PG Psychiatric Education Subcommittee for Indian Psychiatric Society (2017-2021). He is a Senior Editor of Journal for Eating Disorders; Associate Editor of the National Medical Journal of India; and member of the Editorial Board of the following journals: Indian Journal of Psychiatry, Indian Journal of Social Psychiatry, Journal of Indian Association for Child and Adolescent Mental Health, and Journal of Mental Health and Human Behaviour; and served as a Guest Editor for the Indian Journal of Social Psychiatry (2019;34:1-90) supplement. He served on the Advisory Committee of the Indian Council of Medical Research, Department of Health Research for the developments of Standard Treatment Workflows. He is the chief coordinator for the Committee for MBBS curricular reforms at AIIMS, New Delhi and a member of AIIMS Research Committee and AIIMS Ethics Committee. He is a member of the Selection Committee at National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru; King George’s Medical University (KGGMU), Lucknow; and various AIIMS. He served as an inspector for the commencement of post-graduation course in the Department of Psychiatry at various AIIMS. He is a reviewer for Medical Research Council, UK, Wellcome Trust, UK and the Indian Council of Medical Research. He delivered the keynote address on “Mental Stigma and Empowerment” at Com’ Acumen 2019 of the Jesus and Mary College (New Delhi; 18 January 2019); and chaired the “COPE Workshop on Publication Misconduct” at the Indian Association of Medical Journal Editors Conference (New Delhi; 5-8 April 2018); Symposium on “Neuromodulation: What the future holds” at the 2nd National CME on Neuromodulation (New Delhi; 13 May 2018); the NN De Oration at the 25th National Conference of the Indian Association for Social Psychiatry (Rohtak; 16-18 November 2018); and served as a judge for various awards of the Indian Psychiatric Society, Indian Association for Social Psychiatry, and AIIMS Research Section. He served as a member of the Research Advisory Committee of the George Institute for Global Health, India, and resource person for the Resilient Futures India Initiative of the Queen Mary University of London; Mental Health Capacity Building Programme of the Public Health Foundation of India; the Bhutan National NCD Risk Factor Survey (STEPS), the Intervention Packages for Children and Adolescent of the Department of Bio-Technology; and the “End of Life Care Policy” at AIIMS. He participated in the Master Speaker Videoconference series of the International Psychotherapy Institute. He served as a peer reviewer for the following journals: Plos One, BMJ Open, Psychological Medicine, Psychopathology, Psychiatry Research, BMC Psychology, Asian Journal of Psychiatry, the Primary Care Companion for CNS Disorders, National Medical Journal of India, Indian Journal of Psychiatry, and Indian Journal of Social Psychiatry. Examiner for MD (Psychiatry) examination and PhD and MD (Psychiatry) thesis for various national centres.

Rajesh Sagar was Honorary Professor by Department of Psychiatry, University of Melbourne, Melbourne, Australia; Secretary, Central Mental Health Authority (Regulatory body under Mental Health Act, Government of India), 2005-2018 then re-selected as member in 2018; Member, Ethics Committee, National Brain Research Centre, (Deemed University), Manesar, Gurgaon, 2010-continuing; Chief Editor of Indian Psychiatry Society, North Zone (Journal of Mental Health and Human Behavior) October 2010-2018; Convenor of Specialty Advisory Board in Psychiatry, Diplomate of National Board (DNB), National Board of Examination, New Delhi, 2011-2019; Member of Ethics Committee of Central Council of Homeopathy Research (CCHR), Ministry of AYUSH, Government of India, 2012-continuing; Honorary Advisor for mental health to Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India, 2013 and continuing; Co-Chairman, Journal Committee of Indian Psychiatry Society, 2018; Expert committee member to evaluate proposals on EMF radiation Exposure from Mobile towers and handsets and under Cognitive Science Research Initiative (CSRI), Department of Science and Technology (DST), Government of India, 2014-continuing; Expert Member of Project Review Committee for ICMR, DHR, CCHR; Expert member of Signal Review Panel of National Coordination Centre-Pharmacovigilance Programme of India, Indian Pharmacopoeia Commission; Expert Member of the Institutional Ethics Committee of the Public Health Foundation of India (PHFI-IEC); Invited as expert in Doordarshan, DD News, DD National, DD Kisan, Loksabha Channel and Radio program, FM Rainbow, FM Gold, All India Radio; Under the directions of Hon’ble Supreme Court as Secretary, CMHA -Conducted Inspection of three Central Mental Institution, i.e. Central Institute of Psychiatry (CIP), National Institute of Mental Health and Neuro Sciences (NIMHANS), Bangalore and LGBRIMH, Tezpur, Assam, prepared detailed report and submitted to the Ministry; Received AIIMS Excellence Award in 2018 for best published paper and co-author in 2 other papers; Received award (1st prize) as co-author in best pub-
With UNICEF and Government of Bihar initiative, and Supreme Court of India Order, I was leading Sujata Satapathy Nicobar Islands Institute of Medical Sciences, Port Blair; Advisor to UPSC in selection committee. Member, Institute Academic Committee; Member Selection Committee for AIIMS, Bhubaneshwar and Andaman and Juba, South Sudan on 2-5 January 2019 for site inspection; Secretary General, Indian Association for Social Psychiatry; Renu Sharma was member of Medical Board for Autism Spectrum Disorder in Department of Psychiatry, AIIMS, New Graduate Students at AIIMS.

in psychiatry at CRHSP, Ballabhgarh; Served on the Medical Board for the Psychiatric assessment of newly joined Post Professions (IACAPAP 2018); Successfully conducted pre-professional examination of the IX semester MBBS students in India" accepted at 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied 2018 on Domestic Violence; Abstract titled "Current Status of Child and Adolescent Mental Health Burden and Resources of Indian Association for Social Psychiatry 2018 at Rohtak, Haryana; Quoted in an article in India Today on 9 September, Mamta Sood was expert member, Government of India Team to establish mental hospital at Juba, South Sudan, visited Juba, South Sudan on 2-5 January 2019 for site inspection; Secretary General, Indian Association for Social Psychiatry; Member, Institute Academic Committee; Member Selection Committee for AIIMS, Bhubaneshwar and Andaman and Nicobar Islands Institute of Medical Sciences, Port Blair; Advisor to UPSC in selection committee.

Sujata Satapathy: With UNICEF and Government of Bihar initiative, and Supreme Court of India Order, I was leading a team in two phases for the assessment and psychological assessment of 44 children allegedly sexually abused in Child Care Institutes in different places of Bihar. Phase-I: 23-27 July 2018; Phase-II: 10-14 August 2018.

Raman Deep received the ICMR Tilak Venkoba Rao Award; Served as associate Editor of Journal of Mental Health and Human Behaviour (JMHHB), Official Journal of Indian Psychiatric Society, North Zone. (Between October 2010 and October 2018); General Secretary, Society for Promotion of Research in Mental Health and Substance Use (SPREMH).


Rohit Verma: Fellow of IPS: Accepted as a Fellow of the Indian Psychiatric Society (IPS) (Membership No. 1802832018); Membership of NAMS: Accepted as a member of the National Academy of Medical Sciences at Pondicherry, India; Dr JK Trivedi Award: For the study titled “The relationship between illness disability and functioning with caregiver’s perception of needs in patients with first episode schizophrenia: An exploratory study” at the 25th National Conference of Indian Association for Social Psychiatry (NCIASP-2018) held at Rohtak, India from 16 to 18 November 2018; Dr GC Boral Award: For the study titled “A cross sectional study on knowledge about the illness and its treatment among patients with severe mental illness and their caregivers” at the 25th National Conference of Indian Association for Social Psychiatry (NCIASP-2018) held at Rohtak, India from 16 to 18 November 2018; Assistant editor of the journal: Asian Journal of Cognitive Neurology; Secretary General and Founder Member of Neuromodulation Society (India).

Bichitra Nanda Patra became life fellow member of Indian Psychiatric Society; Attended Research connect workshop hosted by Bangor University, UK at Istanbul, Turkey from 7 March to 9 March 2019.

Gagan Hans awarded fellow membership of Indian Association for Social Psychiatry at 25th Annual National Conference of Indian Association for Social Psychiatry 2018 at Rohtak, Haryana; Quoted in an article in India Today on 9 September, 2018 on Domestic Violence; Abstract titled “Current Status of Child and Adolescent Mental Health Burden and Resources in India” accepted at 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions (IACAPAP 2018); Successfully conducted pre-professional examination of the IX semester MBBS students in psychiatry at CRHSP, Ballabhgarh; Served on the Medical Board for the Psychiatric assessment of newly joined Post Graduate Students at AIIMS.

Renu Sharma was member of Medical Board for Autism Spectrum Disorder in Department of Psychiatry, AIIMS, New Delhi in accordance with Ministry of Social Justice and Empowerment; Nominated as a Panelist for National Commission for Protection of Child Rights.
HIGHLIGHTS

- Department has organized Pulomcrit 2019 and update workshop which is one the most sought after conferences in India and was attended by more than 500 attendees (Fig. 1).
- Department formulated guidelines for antimicrobial prescription in critically ill, a document to guide the physicians choosing antimicrobials for critically ill patients. This document was formulated in collaboration with ISCCM. There were gastroenterologists, neurologists, nephrologists, microbiologists and infectious disease specialists as experts (Fig. 2).

Figure 1

Figure 2
EDUCATION

CMEs/Workshops/Symposia/National and International Conferences

1. AIIMS PULMOCRIT 2019: UPDATE in Pulmonary, Critical Care and International Workshop on Ultrasound, 28 February-3 March 2019
2. Indo-US Symposium on Asthma and Allergy in collaboration with Indo-US Science and Technology Forum, AIIMS, 14-15 December 2018

Lectures delivered

Anant Mohan

1. Diagnosis of Lung cancer, AIIMS RT-LC meet, 13 May 2018, IRCH, AIIMS, New Delhi
2. Virtual bronchoscopic navigation, Interventional Pulmonology League, 2-3 June 2018, Mumbai
4. EBUS: Indian data, Interventional Pulmonology League, 2-3 June 2018, Mumbai
5. Panel on pulmonary infections, Pulmonary Radiology CME, 4 August 2018, AIIMS, New Delhi
6. Best five papers in asthma, Best of Chest, 5 August 2018, Noida
7. Advances in Interventional Pulmonology, Pulmonary CME, 4 August 2018, Maulana Azad Medical College, Delhi
8. Top papers in asthma, PACS, 19 August 2018, Metro Hospital, Noida
9. VBN: Sampling peripheral pulmonary lesions, RESPICON, 2 September 2018, NDMC Convention Centre, Delhi
10. BAL in ICU, 7 October 2018, Gurugram
11. Pandemic influenza: Diagnosis and management, INTERVIROCON, 12 November 2018, PGI, Chandigarh
12. COPD panel discussion, COPD CME, 17 November 2018, Delhi
15. EGFR TKIs in LC: AIIMS data, Lung Cancer Update, 2 December 2018, AIIMS, Delhi
16. Recent advances in COPD management, RAJPULMOCON, 3 January 2019, Convention Centre, Jaipur
17. Debate: All severe COPD must be given ICS, RAJPULMOCON, 3 January 2019, Convention Centre, Jaipur
18. Panel discussion on Lung cancer, NATCON, 6 January 2019, Nagpur
19. Management of central airway obstruction, NATCON, 6 January 2019, Nagpur
20. Central airway obstruction: More common and complex than we thought, BRONCOCON, 8-10 February 2019, SGPGI, Lucknow
21. Postgraduate class on Lung cancer, PG Update, 17 February 2019, Safdarjung Hospital, Delhi
22. Management of Asthma, Allergy Conference, 5 March 2019, VPCI, Delhi
23. Management of central airway obstruction, Aligarh CME, 23 March 2019, Aligarh Muslim University, Aligarh

Karan Madan

1. Transbronchial Lung Cryobiopsy, CME Changing Paradigms in Management of Respiratory Diseases, 8 April 2018, PGIMER, Chandigarh
3. Lung Cancer Update, 12-13 May 2018, NCI-AIIMS, New Delhi
4. IIP’s, Lung Cancer Update, 12-13 May 2018, Srinagar
5. Benign airway stenosis (dilatation, stent placement): In whom and how? 1-3 June 2018, Interventional Pulmonology League (IPL), Organized by the Institute of Pulmonology, Medical Research and Development: 12th CME on Stepwise Approach to International Pulmonology
6. Rigid bronchoscopy and stent placement rotational masterclass: Indication, contraindication, pre-recorded case, 1-3 June 2018, Interventional Pulmonology League (IPL), Organized by the Institute of Pulmonology, Medical Research and Development: 12th CME on Stepwise Approach to International Pulmonology
7. Role of bronchoscopy in massive hemoptysis, 1-3 June 2018, Interventional Pulmonology League (IPL), Organized by the Institute of Pulmonology, Medical Research and Development: 12th CME on Stepwise Approach to International Pulmonology
8. Cryobiopsy hands on rotational masterclass, 1-3 June 2018, Interventional Pulmonology League (IPL), Organized by the Institute of Pulmonology, Medical Research and Development: 12th CME on Stepwise Approach to International Pulmonology
9. Benign airway stenosis, Interventional Pulmonology League (IPL), 1-3 June 2018, Organized by the Institute of Pulmonology, Medical Research and Development: 12th CME on Stepwise Approach to International Pulmonology
10. Models for prevention with uncertain risks or drivers public risk perceptions, First Conference on Environmental and Occupational Determinants of Cancer: Interventions for Primary Prevention, 26-27 May 2018, AIIMS, New Delhi
12. Current evidence on bronchial thermoplasty, Materclass-Focused Training Programme, 8 July 2018, Hyderabad
15. Role of interventional pulmonology in management of asthma and COPD, Respiratory Update, 4-5 August 2018, India Chest Society, Guwahati
16. Ventilation strategy in asthma and COPD, Respiratory Update, 4-5 August 2018, India Chest Society, Guwahati
17. Bronchial thermoplasty (Live cases + Wet model), Workshop, PACS-India 2018, 18 August 2018, New Delhi
18. Probable UIP is IPF: Biopsy not required, Pro-con Debate, 19 August 2018, PACS-India 2018, New Delhi
19. Linear EBUS, Pulmo-Update, 8-9 September 2018, Hyderabad
20. Bronchoscopic navigation, Pulmo-Update, 8-9 September 2018, Hyderabad
21. Challenging cases in Mycobacteriology, CME Infectious Disease, 28 October 2018, Maulana Azad Medical College, New Delhi
22. EUS-FNA and EBUS TBNA changing the landscape of diagnostics, CYTOCON Workshop, 1-4 November 2018, Indian Academy of Cytologists, Goa
23. Bronchoscopy workshop, NAPCON, 29 November 2018, Ahmedabad
24. Mediastinal staging: PET vs Mediastinoscopy vs EBUS, Lung cancer management in Indian context, 1-2 December 2018, AIIMS, New Delhi
25. Interventions in ILD when and how? Annual Conference of Respiratory, Critical Care and Sleep Medicine-ACINUS 2018, 22 December 2018, ACINUS, Pune
26. Bronchial thermoplasty, ALLERGOCON, 10-12 January 2019, CMC, Vellore
27. BRONCHOCOCON, Workshop, 8-10 February 2019, SGPGIMS, Lucknow

Vijay Hadda

1. NIV for COPD, NIV Master Class, 18 November 2018, AIIMS, Rishikesh
2. HFNC, NIV Master Class, 18 November 2018, AIIMS, Rishikesh
3. USG assessment of diaphragm, Thoracic Ultrasound Workshop, 9 September 2018, AIIMS, Jodhpur
4. Assessment of skeletal muscle and diaphragm functions in ICU using ultrasound, PULMOCRIT 2019, 3 March 2019, AIIMS, New Delhi
5. High flow oxygen device, Mechanical Ventilation Workshop, 15-16 February 2019, SGRDIMSAR, Amritsar
6. Step ladder approach to hypoxic patient, NAPCON 2018, 29 November 2018, Gujarat University Convention and Exhibition Centre, Ahmedabad
7. Inspiratory muscle training among critically ill, NAPCON 2018, 1 December 2018, Gujarat University Convention and Exhibition Centre, Ahmedabad
8. Laser, cautery and heat ablation, BRONCHON 2019, 10 February 2019, SGPGI, Lucknow
9. Clinical pearls + tips and tricks, RESPICON 2018, 1 and 2 September 2018, RGCI, New Delhi
10. Experts views on thoracoscopy—Panel discussion, RESPICON 2018, 1 and 2 September 2018, RGCI, New Delhi
12. NIV: Experience wins, PACS 2018, 19 August 2018, Metro Hospital, New Delhi
Pawan Tiwari
1. Cryogenics and 3D printing of biological structures for tissue engineering, NAPCON, 30 November 2018, Ahmedabad
2. Ultrasound in pulmonary medicine and critical care, PULMOCRIT, 28 February-1 March 2019, AIIMS, New Delhi
3. Early mobilisation in ICU, PULMOCRIT, 2 March 2019, AIIMS, New Delhi
4. Managing antimicrobial resistance in ICU, Symposium, 16 March 2019, New Delhi
5. Hands on training sessions in INDO-US allergy and asthma, Symposium, 15-16 December 2018, AIIMS

Saurabh Mittal
1. Workshop on Spirometry, Metro Centre of Respiratory Diseases, 18 August 2018, Noida
2. Domiciliary NIV in COPD, Metro Centre of Respiratory Diseases, 19 August 2018, Noida
4. Practice changing research in robotics and digital technology, NAPCON-2018 Conference, 2 December 2018, Ahmedabad
5. Workshop on ultrasound in pulmonary medicine and critical care, PULMOCRIT-2019, 28 February-1 March 2019
6. How do I choose CPAP device, PULMOCRIT-2019, 2 March 2019
7. Interesting cases in Pulmonology, Medicine Update-2019, 10 March 2019, MAMC, New Delhi
8. Diagnosis and Management of TB in liver cirrhosis, CCILBS-2019, 20 April 2019, ILBS, New Delhi

RESEARCH
Funded projects

Ongoing
1. Elucidation of genetic alterations to understand the biology of non-small cell lung cancer patients, Anant Mohan, DBT, 3 years, 2015-2018, Rs 25 lakhs
2. Comprehensive assessment of clinical outcomes following a hospital based structured pulmonary rehabilitation programme in patients with moderate sever COPD and strategies for field-level implementation, Anant Mohan, ICMR, 3 years, 2018-2021, Rs 38 lakhs
3. A multicenter, randomized, 52-week treatment, double blind, triple dummy, parallel-group study to assess the efficacy and safety of QMF-149 compared with mometasonefuroate in patients with asthma-Phase III, Anant Mohan, Novartis, 3 years, 2016-2019, Rs 12.5 lakhs
4. Application of the Sciences of Breathomics in Respiratory Diseases, Anant Mohan, ICMR-CARE (Centre for Advanced Research and Excellence), 5 years, 2019-2024, Rs 5 crores
5. Identification of novel biomarkers in active and latent TB in conjunction with HIV infection, Anant Mohan, DBT, 3 years, 2017-2020, Rs 1.80 crores
6. A phase III, randomized, double-blind, placebo-controlled trial to evaluate the efficacy and safety of VPM1002 and Immuvac Vaccines in preventing Tuberculosis (TB) in healthy household contacts of newly diagnosed sputum positive pulmonary TB patients, ICMR, 5 years, 2018-2023, Rs 1.96 crores
7. A phase IIB open label randomized trial to evaluate the anti-bacterial activity, pharmacokinetics, safety and tolerability of Metformin when given along with rifampicin, isoniazid, pyrazinamide and ethambutol in adults with newly diagnosed sputum positive pulmonary tuberculosis: A 8-week study, ICMR, 2 years, 2018-2020, Rs 1.5 crores
8. Effect of outdoor air pollution on acute respiratory symptoms in Delhi: A multicentric study, Karan Madan, ICMR, 1 year, 2018-2019, Rs 86.24 lakhs
9. Delhi air pollution: Health and effects (DAPHNE), Karan Madan, DBT
10. Immune cell dysfunctions and risk of hospital acquired infections in critically ill patients with sepsis, Vijay Hadda, SERB, 3 years, 2018-2020, Rs 35 lakhs
11. Characterization of leukocytes and prediction of outcome among patients with sepsis, Vijay Hadda, AIIMS, 2 years, 2018-2020, Rs 5.5 lakhs
13. An open label, randomized, active control clinical trial to compare safety and efficacy of risorine capsule in adult patients with RNTCP Category I Pulmonary Tuberculosis, Vijay Hadda, Cadila, 3 years, 2018-2020, Rs 50 lakhs

**Departmental projects**

**Ongoing**

1. A randomized, double blind, placebo-controlled, parallel-group phase 3 study to evaluate the efficacy and safety of dupilumab in patients with persistent asthma
2. An observational study of the clinico-pathological profile and outcomes in patients with lung cancer at a Tertiary Care Center
3. Clinical profile, pulmonary function and quality of life of patients with post TB chronic lung disorders in a Tertiary Care Hospital
4. Comparison of sample adequacy using different suction pressures during EBUS-TBNA: A randomized trial
5. Determination of plasma drug levels of treatment naïve extrapulmonary Tuberculosis and its comparison with treatment outcome
6. Diagnostic utility of sonographic and ultrasound elastography characteristics of mediastinal lymph node during endobronchial ultrasound guided transbronchial needle aspiration
7. Effect of Xylometazoline administration during nasal flexible bronchoscopy: A double blind, randomized, placebo-controlled trial
8. Etiologic and clinical profile of adult patients with bronchiectasis
9. Nebulized lignocaine for topical airway anaesthesia during flexible bronchoscopy: A randomized controlled trial
10. Prospective community based study to evaluate linkage between poor ambient air quality and health indicators among school and college students in Delhi and NCR region
11. Retrospective study on correlation of daily emergency visits with short term variations in ambient air quality
12. Study of outcomes following various interventional procedures for central airway obstruction
13. Study of plasma levels of anti tubercular drugs in patients with extrapulmonary TB
14. Study of the diagnostic yield of various bronchoscopic procedures for lung cancer
15. Transcricoid Injection vs “Spray as You go” method for local anaesthesia during Endobronchial Ultrasound guided Transbrachial Needle Aspiration (EBUS-TBNA) and flexible bronchoscopy: A randomized controlled trial
16. Utility of using ultrasound and spirometry in Predicting Transdiaphragmatic Pressure (Pdi) in patients with moderate to severe idiopathic interstitial pneumonias

**Collaborative projects**

**Ongoing**

1. A nanomedicine approach against drug-resistant EGFR kinase for the treatment of EGFR positive tumors, Department of Chemistry, IIT Delhi, Department of Biochemistry, Microbiology and Immunology, University of Ottawa, Canada
2. Adhesive sensors for detection of Tuberculosis from Skin, Laboratory Medicine
3. Blood test for all forms of active Tuberculosis (TB) for commercialization in India, Laboratory Medicine
4. Comparisons of cytokines, matrix metalloproteinase and bone markers between normal, pulmonary, osteomyelitis and osteoarticular tuberculosis subjects, Orthopaedics
5. Development of a remote healthcare delivery system: Early diagnosis, therapy, follow-up and preventive care for NCDs (Cardio-Pulmonary), Department of Transplant Immunology and Genetics, AIIMS
6. Development of platform technologies for high affinity antibodies for in vitro diagnostics, Laboratory Medicine
7. In Silico Trial for Tuberculosis Vaccine Development (STriTuVaD): A phase II clinical trial to assess the safety, immunogenicity and efficacy of 2 therapeutic vaccines against TB, DBT
8. Lipid-based immunodiagnostics of active tuberculosis, Laboratory Medicine
9. Structure-based design of nanobody inhibitors against EGFR: A protein engineering approach to develop novel therapeutics for lung cancer, Life Sciences, Shiv Nadar University, Center for Computational Biology and Bioinformatics, Central University of Himachal Pradesh
10. Targeting drug resistant tumor harboring mutant EGFRs: A next generation molecular approach for the treatment of non-small cell lung cancer, Department of Chemistry, IIT Delhi
11. Towards differential diagnosis of Tuberculosis at extrapulmonary sites using blood based gene signatures, Orthopedics
12. Transcriptome analysis to understand mechanism of tolerance in the hosts upon *Mycobacterium tuberculosis* infection, Laboratory Medicine

**PUBLICATIONS**

| Journals: 52 | Abstracts: 7 | Chapter in Books: 1 |

**PATIENT CARE**

**Pulmonary Medicine OPD**

- New Cases: 10,525
- Old Cases: 23,578
- Chemotherapy Procedures: 3,994

**Lung Cancer Clinic**

- New Cases: 217
- Old Cases: 2,189

**Combined Pulmonary Surgery Clinic**

- New Cases: 147
- Old Cases: 673

**Sleep Disorder Clinic**

- New Cases: 72
- Old Cases: 310

**ILD/PAH Clinic**

- New Cases: 142
- Old Cases: 1,465

**LABORATORIES**

**Respiratory Laboratory**

- Spirometry procedures: 12,440
- Diffusion capacity estimation: 2,570
- Body Box (Plethysmography) measurements: 452
- MIP, MEP: 415
- FOT/IOS: 242

**Bronchoscopy Laboratory**

- Fiberoptic bronchoscopy procedures: 1,787
- Endobronchial Ultrasound: 722
- Thoracoscopy: 62
- Stenting: 48
- Cryotherapy: 12
- Rigid Thoracoscopy: 119
- Electrocautery: 4

**Sleep Laboratory**

- Polysomnography studies: 490
- CPAP titration: 450

**Allergy Testing**

- CPET: 178
- FENO: 645
- Six Minute Walk Test: 1,160
- Skin Prick Test: 46
- Total IgE Level: 2,845
- Aspergillus IgE Level: 2,560
- Aspergillus IgG Level: 655

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

Professor Anant Mohan was member of the Independent Expert Committee—Serious Adverse Events, Drugs Controller General (India) since July 2016; Member of Special Committee of “Special Centre for Molecular Medicine”, J.N.U. since September 2016; Member of Task Force “Environmental Sciences” at National Institute for Research in Environmental Health, Bhopal; Member-Secretary of the India Chest Society (Delhi-NCR Chapter); Joint Member-Secretary of the Indian Association of Bronchology since March 2019; Member of ICMR Committee for Formulating Work Plan for Respiratory Diseases, 2018-2019.
### 9.36. Radiodiagnosis

<table>
<thead>
<tr>
<th>Professor and Head</th>
<th>Arun Kumar Gupta</th>
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<tbody>
<tr>
<td><strong>Professors</strong></td>
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<tr>
<td>Deep Narayan Srivastava</td>
<td>Raju Sharma</td>
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<tr>
<td>Sanjay Thulkar (IRCH)</td>
<td>Sanjay Sharma (RPC)</td>
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<td>Ashu Seith Bhalla</td>
<td>Smriti Hari</td>
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<tr>
<td>Shivanand Gamanagatti (Trauma Centre)</td>
<td>Atin Kumar (Trauma Centre)</td>
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<td><strong>Associate Professors</strong></td>
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<tr>
<td>Chandan J Das</td>
<td>Madhusudhan KS</td>
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<tr>
<td>Surabhi Vyas</td>
<td>Manisha Jana</td>
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<tr>
<td>Devasenathipathy Kandasamy</td>
<td>Chandrashekhara SH (IRCH)</td>
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<td><strong>Assistant Professors</strong></td>
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<tr>
<td>Smita Manchanda</td>
<td>Priyanka Naranje</td>
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<td>Mukesh Yadav (IRCH)</td>
<td>Ekta Dhamija (IRCH)</td>
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<td><strong>Scientist IV</strong></td>
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<td>Shashi B Paul</td>
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<td><strong>Chief Technical Officer (Group A)</strong></td>
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<td>Braham Singh</td>
<td>Renu Soorma</td>
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**HIGHLIGHTS**

The departmental faculty was actively engaged in patient care, education and research. The department made a concerted and successful attempt to reduce the waiting period for various imaging procedures. Reporting of all investigations is currently electronic and done on work-stations. During this period one flat panel digital subtraction angiography machine, four ultrasound machines and one C-arm fluoroscopy machine were added to the diagnostic armamentarium of the department. The department also acquired a state-of-the-art software for texture analysis of CT and MR images and another software for assessment of bone age. Faculty members delivered over 170 lectures in various CMEs, national and international conferences. Faculty members were actively involved in research and published 116 papers in various indexed national and international journals and contributed 55 chapters to text-books of Radiology. They also edited two books on Radiology. About 102 posters and oral papers were presented in various conferences in India and abroad. The department faculty members were principal investigators in 5 funded projects. Besides, they were involved in 21 ongoing departmental projects and nearly 100 collaborative projects with other clinical departments. The department conducted 2 CMEs during this period which were very well received and attended by delegates from across the country.

**EDUCATION**

**Undergraduate**

The department faculty was actively involved in teaching of undergraduate students. There were total of 60 lectures taken by the faculty for them in this period.

**Postgraduate**

There were total of 25 junior residents in the department during this period, including 6 new residents who joined the department.

Academic activities for post graduate students included around 35 seminars, 35 journal clubs, 70 case discussions, 70 interesting film sessions and 80 lecture classes.

The department provided short term training to 5 radiologists from all over the country and one from Nepal, during this period.
BSc (Hons) Medical Technology in Radiography (MTR)

This course is of three years duration and a total of 29 students are pursuing this course.
CMEs/Workshops/Symposia/National and International conferences.

CME organized

1. 2nd AIIMS Interventional Radiology Course on “IR Primer”, 14-15 April 2018
2. AIIMS Radiology Course on “Imaging of Chest Infections”, 4-5 August 2018

Lectures delivered

Deep Narayan Srivastava

1. Role of CT rotation technique in vertebral augmentation procedure, Workshop on Angiography, 26-27 April 2018, Chandigarh
2. Ultrasound guided injections in musculoskeletal pain management, 6th Annual Conference of Musculoskeletal Society (MSS), 9-12 August 2018, Chennai
3. Role of interventional radiology in cancer pain management, 58th Annual Conference of National Academy of Medical Sciences (NAMSCON), 26-28 October 2018, Puducherry
4. Role of interventional radiology in treatments in future India, 106th Indian Science Congress, 3-7 January 2019, Jalandhar
5. US guided injections in MSK, 72nd Annual Conference of IRIA, 17-18 January 2019, Chandigarh
6. Percutaneous laser disc decompression, 21st Annual Conference of Indian Society of Vascular and Interventional Radiology, 7-10 March 2019, Goa
7. Minimally invasive treatments in India in discussion meeting on unmet needs in health care of India, A joint NAMS-INSA Programme, 30 March 2019, Delhi

Raju Sharma

1. Imaging the Adrenal Gland, Dr Harnam Singh CME of Indian College of Radiology and Imaging, 7-8 July 2018, Indore
2. Film Reading Session, Dr Harnam Singh CME of Indian College of Radiology and Imaging, 7-8 July 2018, Indore
4. Unusual Liver Lesions, Max Hospital CME, 21 July 2018, New Delhi
5. Tuberculosis versus Crohn’s Disease Conundrum: Role of Imaging, Annual Conference of Indian Society of Gastrointestinal and Abdominal Radiology, 28-30 September 2018, New Delhi
7. Imaging of Thymus Gland, Annual Conference of Royal Australian and New Zealand College of Radiologists, 25-28 October 2018, Canberra, Australia
8. Imaging of Pancreatic Cancer, Annual conference of Royal Australian and New Zealand College of Radiologists, 25-28 October 2018, Canberra, Australia
9. Film Reading Session for Trainee Radiologists, Annual Conference of Royal Australian and New Zealand College of Radiologists, 25-28 October 2018, Canberra, Australia
10. Film Reading Session, Annual Conference of Society of Emergency Radiology, 2-4 November 2018, Hyderabad
11. Imaging of Carcinoma Rectum, Meeting of Rectal Cancer Working Group, 17 November 2018, Delhi
12. Dilemmas in Pancreatic Imaging: Carcinoma vs Inflammation, CME on Hepatobiliary Imaging, 25 November 2018, Delhi
13. LIRAD Primer for the Clinician, Annual Conference of Indian Society of Gastroenterologists, 30 November 2018, Kochi
15. How to Read a Liver CT, Annual Conference of Indian Society of Gastroenterologists, 1 December 2018, Kochi
16. GI Radiology: What a Gastroenterologist needs to Know, Gastroenterology for Young Masters, 13 January 2019, Delhi
17. Imaging of Pancreatic Carcinoma, Annual Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
18. Pancreatic Cancer: Imaging, Delhi Imaging Conclave, 7 February 2019, Delhi
19. Imaging of Pancreatic Cancer, CME of Maharashtra State Branch of IRIA, 24 March 2019, Aurangabad
22. Film Reading Session, CME of Maharashtra State Branch of IRIA, 24 March 2019, Aurangabad
23. Imaging of Pancreatic Cancer, Annual Conference of Uttarakhand State Branch of IRIA, 30 March 2019, Rishikesh
24. Moderated a Panel Discussion on MRI: What are the expectations of the Clinician, Outreach workshop of International Society for Magnetic Resonance in Medicine, 29 March 2019, New Delhi

Sanjay Sharma
1. Orbital Radiology: What a resident must know, Occuloplasty and Ocular Oncology Workshop, 2 December 2018, New Delhi
2. Imaging of Orbit and Globe, 4th AIIMS-MAMC-PGI Imaging Course Series: Neuroradiology including Head and Neck, 1 April 2018, Chandigarh

Ashu Seith Bhalla
1. Case Based Review of Cystic Lung Disease, IRIA Resident Education Programme (IREP), 14 and 15 July 2018, Lucknow
2. Classic Radiological Signs and patterns of Pulmonary infections, IRIA Resident Education Programme (IREP), 14 and 15 July 2018, Lucknow
3. Imaging in tuberculosis and its differentials, AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
5. Imaging of complications of infections, AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
6. Imaging in primary immune deficiency PIDD, AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
7. Challenging cases in Thoracic and Head and Neck Interventions, 18th Annual Meeting of Asian and Oceanic Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), 14-16 September 2018, Chandigarh
11. Thoracic Ultrasound, 11th Annual State Conference of the Chhattisgarh state Chapter of Indian Radiological and Imaging Association IRIA, 17 and 18 November 2018, Raipur
12. Approach to Pulmonary Infections, 11th Annual State Conference of the Chhattisgarh state Chapter of Indian Radiological and Imaging Association IRIA, 17 and 18 November 2018, Raipur
13. TB-What is new! 11th Annual State Conference of the Chhattisgarh state Chapter of Indian Radiological and Imaging Association IRIA, 17 and 18 November 2018, Raipur
14. Tuberculosis—The role of imaging modalities today, 20th National Conference on Pulmonary Diseases (NAPCON), 30 November to 2 December 2018, Ahmedabad
15. Panel discussion on Radiology in management of NSCLC, Lung Cancer Yearend review, 15-16 December 2018, Mumbai
16. Lung Carcinoma: CT Features of Spread through Air Spaces (STAS), Lung Cancer Yearend Review, 15-16 December 2018, Mumbai
17. How to plan a research study and carry it out? 71st National Conference of Indian Radiological and Imaging Association, 17 to 20 January 2019, Chandigarh
18. How to convert my thesis into a publishable manuscript, 71st National Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh

19. MRI Chest, 71st National Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh

20. Panel discussion on publication, 71st National Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh

21. Imaging Manifestations of Vasculitis, Neph-Immune 2019, 3 February 2019, New Delhi

22. Pulmonary manifestations of Leukemia, 1st Annual International Conference of Society of Oncoimaging and Interventions SOIICON on Thoracic Oncology Imaging, 8-10 February 2019, New Delhi

23. Emergency Thoracic Ultrasound: Point of Care Ultrasound, Annual Conference of Delhi State Branch of IRIA, Delhi Imaging Update 2019, 16-17 February 2019, New Delhi


**Smriti Hari**

1. Approach to a patient with mastalgia and Nipple discharge (Panel discussion), 12th AIIMS Surgical Week International Conference, CME cum Live Workshop (ENDOSURG 2018), 20 April 2018, New Delhi

2. Role of Radiologist in breast conserving surgery Post-neoadjuvant chemotherapy, 12th AIIMS Surgical Week International Conference, CME Live Workshop (ENDOSURG 2018), 20 April 2018, New Delhi

3. BIRADS-Concept and philosophy, CME of Breast Imaging; Basics and Current Updates, 21 July 2018, Aurangabad

4. BIRADS Category III lesions, CME of Breast Imaging; Basics and Current Updates, 21 July 2018, Aurangabad

5. Breast Interventions, CME of Breast Imaging; Basics and Current Updates, 21 July 2018, Aurangabad


8. ‘Relax! I am Benign’ breast diseases, BISICON 2018; 6th Annual Conference of Breast Imaging Society (India), 16-18 November 2018, Patna

9. Tumour Board Cases (Panel Discussion), BISICON 2018; 6th Annual Conference of Breast Imaging Society (India), 16-18 November 2018, Patna

**Shivanand Gamanagatti**

1. IR in pelvic emergencies, Annual Conference of Society for Emergency Radiology, 2-4 November 2018, Hyderabad

2. What to report in TFCC tears, CME on MSK Ultrasound, 16 December 2018, Delhi

3. Response assessment in after locoregional therapies for HCC, 72nd Annual Conference of IRIA, 17-20 January 2019, Chandigarh

4. Overview of Craniofacial Trauma, Delhi Imaging Update, 16-17 February 2019, New Delhi


6. Interventions in Hepatobiliary and GI system, Gastroenterology Young Master’s Programme (GYM), 11-13 January 2019, Delhi

7. Amazing Interventions: Budd-Chiari Syndrome, Annual Conference of ISVIR, 7-10 March 2019, Goa


9. Extra-hepatic blood supply of hepatocellular carcinoma: What an interventional radiologist needs to know, Angio-CT Hybrid Laboratory Workshop, 26-27 April 2018, Chandigarh

10. Endovascular management of renal trauma, Dr Harman Singh Mid Term CME 2018, 7-8 July 2018, Indore

11. Imaging and Interventions in GI bleed, Radiology CME, 15 July 2018, Jaipur

**Atin Kumar**

1. Case based IR approach to patient with trauma, IR Primer on Basics of Angiography, Embolization and Sclerotherapy, 14-15 April 2018, Delhi

2. Workshop on basics of interventional techniques, IR Primer on Basics of Angiography, Embolization and Sclerotherapy, 14-15 April 2018, Delhi
3. Imaging of Brachial Plexus Injury, Harnam Singh Mid Term CME of IRIA, 7-8 July 2018, Indore
4. Imaging of abdominal trauma, Body Imaging Update CME, 28-29 July 2019, Delhi
5. Imaging of pancreatic trauma, Society for Emergency Radiology E Lecture, 15 June 2018, Delhi
6. Film Reading Session, Dr RK Goulatia mid term CME of IRIA, 1-2 September 2018, Gurugram
8. Solid organ trauma—Imaging and intervention strategies, Annual Conference of Society for Emergency Radiology, 2-4 November 2018, Hyderabad
9. Workshop on Peripheral Angio Simulator, Annual Conference of Society for Emergency Radiology, 2-4 November 2018, Hyderabad
10. Blunt vs penetrative abdominal trauma, 72nd Annual Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
12. Case presentation—My worst day in IR suite, 21st Annual Conference of Indian Society of Vascular and Interventional Radiology, 7-10 March 2019, Goa

Chandan J Das
1. Endovascular interventions in Budd Chiari Syndrome, 2nd CME (SLIRF, Society of Image Guided Therapy), 18-20 May 2018, Kandy, Sri Lanka
3. Ablation of Small Renal Masses—How I Do It Complication after Ablation—Case Based, 5th Asian Conference on Tumor Ablation (ACTA), 6-7 October 2018, Chennai
4. Imaging the foreign bodies, 5th Annual Conference Society for Emergency Radiology, 2-4 November 2018, Hyderabad
5. DWI of Abdomen How I do it, 44th Annual Conference of IRIA, 1-2 December 2018, Jorhat
6. Imaging algorithm and endovascular management of Renovascular hypertension, 72nd Annual Conference of Indian Radiological and Imaging Association, 17-19 January 2019, Chandigarh

Madhusudhan KS
1. Cryoablation in liver and renal tumors: What is the evidence? Angio-CT hybrid Laboratory Workshop, 26-27 April 2018, Chandigarh
2. Facet and sacroiliac joint interventions, Interventional radiology CME and workshop on musculoskeletal interventions by National Academy of Medical Sciences, 20 May 2018, Delhi
3. Interventional radiology in portal hypertension, Interventional radiology CME by Delhi State Chapter of IRIA, 19 August 2018, Delhi
4. Imaging of IgG4 cholangiopathy, CME on Hepatobiliary Imaging, 25 November 2018, Delhi
5. Epidemiology and staging of hepatocellular carcinoma, Annual Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
6. Bile duct injury: From prevention to management—Panel discussion, Biennial Conference of Endolap MAMC, 3 March 2019, Delhi
7. Renal embolization: Indications, embolic agents and results, Annual Conference of Indian Society of Vascular and Interventional Radiology, 7-10 March 2019, Goa

Devasenathipathy Kandasamy
1. USG imaging in PCOS, PCOS Investigators Meeting, 5-6 April 2018, Srinagar
2. USG imaging in PCOS, PCOS Investigators Meeting, 12-13 April 2018, Hyderabad
3. Imaging in DSD, Assam Chapter of Paediatric Surgeons, 3-7 May 2018, Silchar, Assam
4. Imaging in vertebral fractures, 6th International Conference of Geriatric Orthopedic Society of India, 6-9 September 2018, New Delhi
5. Clinical Imaging Perspective—Body imaging, Machine Learning in Medical Imaging—An Introductory Workshop, 8 September 2018, New Delhi
6. Ultrasound Liver, Workshop on Neonatal brain, Asian and Oceanic Society for Paediatric Radiology (AOSPR), 14-16 September 2018, Chandigarh
7. Film Reading Session, Asian and Oceanic Society for Paediatric Radiology (AOSPR), 14-16 September 2018, Chandigarh
8. Neonatal cranial USG, ACTION Trial, 26-27 October 2018, Cuttack, Orissa
10. Imaging of abdomen and pelvis, PRODVANCE 2018, 10-11 November 2018, Bathinda
11. MRI in Paediatric Chest, RESPICON 2018, 23 November 2018, Indore
13. Clinic radiological aspects in pediatric chest imaging—Panel discussion, RESPICON 2018, 23 November 2018, Indore
15. Imaging in Conjoined twins, 21st Annual AIIMS, Micro Neurosurgery Workshop, 13-14 February 2019, New Delhi
16. Radiology is always a Data Science, Mathematics in Biomedical Sciences, 10 March 2019, New Delhi

**Manisha Jana**

1. Skeletal dysplasias made simple, AOSPR 2018, 15 September 2018, Chandigarh
2. Imaging of pediatric airways, IRIA 2019, 19 January 2019, Chandigarh

**Surabhi Vyas**

1. Workshop—Biopsy and RFA, IR Primer on Basics of Angiography, Embolization and Sclerotherapy, April 2018, Delhi
2. Imaging in a child with limp: Essential requisites, CME Body imaging update, July 2018, Delhi
3. Worsening radiograph, What next? Multidisciplinary approach with the bronchoscopy interventionist and surgeon, Imaging of chest infections, AIIMS radiology course series, August 2018, Delhi
4. Immuno compromised host: Can I suspect and predict the defect, Imaging of chest infections, AIIMS Radiology Course Series, August 2018, Delhi
5. Congenital uterine anomalies, Delhi state chapter IRIA-Ultravision 2018, October 2018, Delhi
6. Paediatric chest radiograph: Basic reading, Respicon 2018, November 2018, Indore
7. Basics of chest CT terminology, technical factors and radiation, Respicon 2018, November 2018, Indore
8. Nuclear imaging in pediatric pulmonology, Respicon 2018, November 2018, Indore
9. Interpretation of mammography, 44th Annual Conference of Assam State Chapter IRIA, December 2018, Jorhat, Assam

**Smita Manchanda**

1. FNAC and Biopsies under USG guidance: Workshop, IR Primer on Basics of DSA, Sclerotherapy and Embolization, 14 April 2018, New Delhi
2. Classification of Vascular Anomalies, IR Primer on Basics of DSA, Sclerotherapy and Embolization, 14 April 2018, New Delhi
3. Imaging in Female Infertility, Body Imaging Update, 29 July 2018, New Delhi
4. Case Based Discussion on Community and Hospital Acquired Pneumonia, AIIMS Radiology Course—Imaging in Chest Infections, 4 August 2018, New Delhi
5. Approach to consolidation, AIIMS Radiology Course—Imaging in Chest Infections, 5 August 2018, New Delhi
6. Quiz: Score and be rewarded, AIIMS Radiology Course—Imaging in Chest Infections, 5 August 2018, New Delhi
7. Imaging in Pulmonary Thromboembolism, Monthly Meeting of Delhi State Chapter of IRIA, 8 September 2018, New Delhi

Ankur Goyal
1. IR in Low flow vascular malformations Case-based quiz on vascular anomalies ‘Label it correctly’, AIIMS Radiology Course: IR primer on Basics of DSA, Sclerotherapy and Embolization, 14-15 April 2018, New Delhi
2. MSK FNACs and Biopsies: Tips and Tricks, Interventional Radiology CME and workshop on Musculoskeletal Interventions conducted by National Academy of Medical Sciences (NAMS) in collaboration with Musculoskeletal Society of India, 20 May 2018, New Delhi
3. Ultrasound in musculoskeletal trauma: What a radiologist should know, CME: Body Imaging Update, organized by Army Hospital (R&R), Delhi Cantt, 28-29 July 2018, New Delhi
4. Approach to nodules Interactive Radio-path case discussion, AIIMS Radiology Course on Imaging in Chest Infections, 4-5 August 2018, New Delhi
5. Supratentorial and Sellar Masses: An Imaging Approach, Dr RK Goulatia CME 2018 (Gastrointestinal and Hepatobiliary Imaging), 1-2 September 2018, Gurugram
6. Contrast-enhanced Ultrasound in Hepatobiliary system: Technique, Tips and Tricks, Medanta Ultrasound Update on Hepatobiliary Ultrasound, 8-9 September 2018, New Delhi
7. Live demonstration of wrist ultrasound interactive film reading session for the residents, Musculoskeletal Ultrasound conference held at PGIMER, Dr RML Hospital, 16 December 2018, New Delhi
8. GI Radiology: What the Gastroenterologist should know, Gastroenterology Young Master’s Programme (GYM) 2019 conducted by Indian Society of Gastroenterology, 11-13 January 2019, New Delhi
9. Current concepts in imaging of peripheral nerves and Tunnels and Crossings of the extremities: Imaging Roadmap, 72nd Annual Conference of IRIA, 17-20 January 2019, Chandigarh
10. Panelist in Dr Suren Kothari film reading session, 72nd Annual Conference of IRIA, 17-20 January 2019, Chandigarh
12. Faculty (clinical mentor in brainstorming multidisciplinary sessions), ISMRM Accessible MRI Workshop, Organized by ISMRM India Chapter, 29-31 March 2019, New Delhi

Priyanka Naranje
1. Pre and post procedural evaluation in interventional radiology, AIIMS radiology course: IR Primer on Basics of Angiography, Embolization and Sclerotherapy, 14 and 15 April 2018, New Delhi
2. Resident quiz, AIIMS radiology course: IR Primer on Basics of Angiography, Embolization and Sclerotherapy, 14 and 15 April 2018, New Delhi
3. Abdominal infections in febrile neutropenia: Radiologists’ perspective, National Hematology Update: XI, 15 April 2018, New Delhi
4. Paediatric chest X-ray and CT scan: Basic and Applied, 3rd State Conference “Awesome Pulmonology” of IAP Respiratory Chapter-Rajasthan State, 8 July 2018, Jaipur
5. Approach to mediastinal and airway disease, AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
6. Approach to pleural disease, AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
8. Quiz: Score and be rewarded! AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
9. Chest X Ray in ICU Setting, Monthly Meeting of Delhi State Chapter of IRIA, 8 September 2018, New Delhi
10. Paediatric Radiology Film Reading Session by Experts-Chest, 18th Annual Meeting of Asian and Oceanic Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), 14-16 September 2018, Chandigarh


Shashi B Paul

1. Talk-CEUS assessment of liver lesions: Advantages and Limitations, Importance in assessment of small liver lesion and CEUS-LIRADS guidelines at, Medanta Ultrasound Update, 8-9 September 2018, New Delhi

Oral papers/posters presented


6. Behera RK, Madhusudhan KS, Srivastava DN, Gamanagatti S, Right sided versus left sided PTBD in the management of malignant biliary obstruction:a randomized controlled study, ECR 2019, 27 February-3 March 2019, Vienna, Austria


34. Makhija N, Hari S, Dhamija E, Paul SB, Missed / Misinterpreted Masses on Breast Ultrasonography, BISICON 2018, 16-18 November 2018, Patna
35. Malla SR, Bhalla AS, Manchanda S, Contrast enhanced Ultrasound (CEUS): Uncovering the Pandora’s Box of Possibilities in the evaluation of neck masses, Korean Congress of Radiology, 12-15 September 2018, Seoul, South Korea
42. Malla S, Chahal A, Gupta D, Gamanagatti S, Pull type radiologically inserted gastrostomy: An improvised technique using a frugal innovation, Korean Congress of Radiology, 12-15 September 2018, Seoul, South Korea
44. Manchanda S, Bhatta AS, Ponneth MS, Kumar R, Barwad A, Water Balloon Technique in USG of Carcinoma Buccal Mu cosa: Corollary to Puffed Cheek CT, RSNA 104th Scientific Assembly and Annual Meeting, 25-30 November 2018, Chicago, USA
46. Manchanda S, Sherwani P, Bhatta AS, Kumar R, 3D CT in the pre-operative evaluation of cochlear implant patients: Going beyond the routine, 72nd Annual Conference of IRIA 2019, 17-20 January 2019, Chandigarh
47. Mewar SK, Sharma S, Dhamija E, Bhattachajee R, Thulkar S, et al. (Poster), In bore MR guided prostate biopsy using multiparametric MRI to avoid unnecessary biopsies, Joint Annual Meeting of ISMRM-ESMRMB, 16-21 June 2018, Paris, France
52. Monga A, Madhusudhan KS, Goyal A, Das CJ, Srivastava DN, Comparison between percutaneous balloon vesselplasty and percutaneous vertebroplasty in chronic painful compression fractures of dorsolumbar spine, ISVIR 2019, 7-10 March 2019, Goa
60. Paul SB, Shekhar Singh S, Yadav D, Dhamija E, Gamanagatti SR, Shalimar, Acharya SK, Spectrum of Contrast enhanced ultrasound findings in Hepatocellular carcinoma treated with locoregional therapy, 26th Annual Scientific Meeting Indian National Association for Study of the Liver, (INASL 2018), 2-5 August 2018, New Delhi

62. Prakash A, Sharma S (Oral paper), Orbital cysticercus: More than that meets the eye, Combined 18th Meeting of Asian Oceanian Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), Organized by PGIMER, Chandigarh, 14-16 September 2018, Chandigarh


64. Prasad V, Dhamija E, Paul SB, Hari S, Manchanda S, Baby A, Role of ultrasonography in locoregional staging of breast cancer: Beyond evaluation of primary breast mass, Korean Congress of Radiology, 12-15 September 2018, Seoul, South Korea


75. Santhalia PK, Kandasamy D, Jana M, Naranje PM, Sharma R, Imaging of Paediatric Renal Masses: Pictorial Essay, 18th Annual Meeting of Asian and Oceanic Society of Paediatric Radiology(AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), 14-16 September 2018, Chandigarh


83. Sherwani P, Jana M, Bhalla AS, Naranje P, Gupta AK, Kandasamy D, Pulmonary manifestations of primary immunodeficiencies in paediatric patients: Imaging Consideration, 72nd Annual Conference of IRIA, 17-20 January 2019, Chandigarh
86. Singh R, Naranje P, Kandasamy D, Jana M, Gupta AK, Damle NA, Be calm: Not all skull lytic lesions are LCH2, AOSPR 2018, 14-16 September 2018, Chandigarh
91. Srivastava DN, Monga A, Madhusudhan KS, Malla S, Comparison between percutaneous balloon vesselplasty and percutaneous vertebroplasty in chronic painful compression fractures of dorsolumbar spine, ECR 2019, 27 February-3 March 2019, Vienna, Austria
98. Vyas S, Malla S, Bhalla AS, Kumar U, Gupta AK, Ultrasonography in early rheumatoid arthritis of hand and wrist joints: Comparison with magnetic resonance imaging, European Congress of Radiology, 27 February-3 March 2019, Vienna, Austria
RESEARCH

Funded projects

Ongoing

1. Pilot Implementation of Collaborative Digital Diagnosis System (CollabDD) Using Medical Imaging, Arun Kumar Gupta, Department of Health Research, 3 years, 2016-2018, Rs 49 lakhs
2. Diffusion Tensor Imaging (DTI) to assess renal acute allograft dysfunction in renal transplant patient, Chandan J Das, DST, 2 years, 2016-2018, Rs 23 lakhs
3. Evaluation of Incremental Role of MR Perfusion in the Characterization of Neck Masses, Smita Manchanda, AIIMS, 2 years, 2016-2018, Rs 1 lakh

Completed

1. Evaluation of the graft kidney by contrast-ultrasound and elastography in early post-operative period, Ankur Goyal, AIIMS, 2 years, 2016-2018, Rs 5 lakhs

Departmental projects

Ongoing

1. Percutaneous image guided interventional radiology procedures in spinal diseases
2. Role of Advanced CT and MR techniques in pancreatic masses
3. Evaluation of Soft tissue vascular anomalies using CEUS and elastography
4. Role of Interventional Radiology in obstetric related hemorrhage
5. Role of Contrast Enhanced Ultrasound and MR Perfusion in the characterization of neck masses
6. Role of ultrasound guided wire localization and surgical removal of clipped pretreatment positive axillary lymph nodes in increasing the diagnostic accuracy of sentinel lymph node biopsy after neoadjuvant chemotherapy in breast cancer patients
7. Multimodality imaging evaluation of chronic mass forming mastitis and role of Ultrasound guided core needle biopsy in determining the etiology
8. Role of imaging for clinical outcome evaluation in pelvic fracture patients
9. Imaging in infantile brachial plexopathy
10. Evaluation of Soft tissue vascular anomalies using CEUS and elastography
11. Fibroadipose Vascular Anomaly: Comprehensive analysis of clinic-radiologic-pathological features and treatment outcomes of this new entity
12. Sclerotherapy in low-flow vascular malformations: Assessment of clinical effectiveness of the current practices in a tertiary care center
13. Role of advanced MRI and ultrasonography in Evaluation of Prostate Cancer
14. Management of bilio-enteric anastomotic strictures: Role of percutaneous interventions
15. Correlation of MRI and Lung ultrasonography in connective tissue related interstitial lung disease
16. Role of HRCT in the diagnosis of apparently idiopathic interstitial lung diseases
17. Randomized controlled trial of uterine artery embolization vs Abdominal hysterectomy for symptomatic uterine fibroids in patients who have completed their family
18. Evaluation of split-bolus dual energy CT in staging of carcinoma larynx
19. Deep Learning for detection and classification of abnormalities on Full Field Digital Mammography
20. Diagnostic accuracy of Contrast enhanced Ultrasound in detecting early response to Neoadjuvant Chemotherapy in Breast cancer patients
21. Imaging and Intervention in Paediatric Budd Chiari Syndrome
1. Advanced MR Imaging and Image Guided Interventions in chronic low back pain
2. Role of high frequency sonography in evaluation and management of traumatic injuries of upper limb
3. Dual Energy CT and MR evaluation of thymic lesions
4. Comparison of 4D CT, 4D MRI and Fluorocholine PET in the Localization of Parathyroid Lesions in Patients with Primary Hyperparathyroidism (HPT)
5. Role of Dual Energy Computed Tomography in the Evaluation of Liver Fibrosis in Patients of Chronic Liver Disease
6. Diagnostic and Prognostic role of MRI in acute traumatic cervical cord injury
7. Role of shear wave Elastography in Diagnosis Prognostication and Follow-up of Neonatal/Infantile cholestatic liver diseases
8. To identify the imaging features of chronic cavitary pulmonary aspergillosis and differentiate it from simple aspergilloma on DECT in patients with post—TB sequelae and hemoptysis
9. Role of MRI in evaluation of Residual Tumor Burden following Neoadjuvant Therapy in patients with Breast Cancer
10. Evaluation of feasibility of Shear wave Sono-Elastography in the assessment of uterine pathology with MRI and/or Histopathology correlation
11. Role of multiparametric MRI and Ga-68 PSMA PET Scan in evaluation of intermediate and high-risk prostate cancer
12. Right sided versus left sided percutaneous transhepatic biliary drainage in the management of biliary obstruction: A randomized controlled study
13. Role of dual energy computed tomography in the evaluation of liver fibrosis in patients of chronic liver disease
14. MRI Evaluation of Thymic Lesions
15. Role of High Frequency Sonography in evaluation and management of upper limb injuries
16. Role of shear wave elastography in assessment of response to neo adjuvant chemotherapy in patients with breast cancer

Collaborative projects

Ongoing

1. Safety, suitability and clinical effectiveness of unicompartmental knee replacement in the Indian population (UKIERI-DST), Orthopaedics
2. Understanding differences in the patterns of osteoarthritis in Indian and Western population: Impact on symptoms, treatment options and their outcome (UKIERI-DST), Orthopaedics
3. Disconnected pancreatic duct syndrome is uncommon and asymptomatic following cystogastrostomy for pseudocyst/walled off necrosis in patients with acute pancreatitis, Gastroenterology
4. Stem cell therapy in Peri anal fistula in Crohn’s Disease, Gastroenterology
5. Modalities of therapeutic interventions and assessment of multisystem complications in idiopathic hypoparathyroidism, Endocrinology
6. The feasibility and safety of the sub-xiphoid video assisted thymectomy for myasthenia gravis: A pilot study, Department of Surgical Disciplines
7. Efficacy and tolerability of hyperbaric oxygen therapy in structuring and fistulizing small bowel Crohn’s Disease, Gastroenterology
8. Prevalence of NAFLD and its association with cardio-metabolic risk factors in North India, Endocrinology
9. Evaluation of various clinical and immunological parameters in predicting the outcomes of sino-nasal and skull base invasive fungal diseases: A descriptive study, Otorhinolaryngology—Head and Neck Surgery
10. Prospective pilot study for evaluating incidence of occult lymph node metastasis in Patients of Olfactory Neuroblastoma, Otorhinolaryngology—Head and Neck Surgery
11. Evaluation of unknown head and neck primaries metastatic to cervical lymph node in adults, Otorhinolaryngology—Head and Neck Surgery
12. Comparison of efficacy of Mitek mini anchor suture technique with conventional technique for TMJ disc placation in Wilkes Class III patients—A randomized controlled trial, Oral and Maxilla-Facial Surgery
13. Sdh-x gene mutation in head and neck paragangliomas: A clinicopathological study, Otorhinolaryngology—Head and Neck Surgery
14. Clinico radiological correlation of Vitamin D level and immune markers with severity of disease in cases of Allergic Rhinitis, Nasal Polyposis and Recurrent Nasal Polyposis, Otorhinolaryngology—Head and Neck Surgery
15. Determination of plasma drug levels of Anti-Tubercular drugs in patients with Extra-Pulmonary Tuberculosis (Lymph nodes and Pleural effusion) and its association with treatment outcomes, Pulmonary Medicine and Sleep Disorders
16. Etiology and clinical profile of adult patients with bronchiectasis, Pulmonary Medicine and Sleep Disorders
17. An ambispective cohort study of the predictors of diagnostic yield of various bronchoscopic procedures for lung cancer at a tertiary level health care facility, Pulmonary Medicine and Sleep Disorders
18. A pilot study to evaluate the role of 68 Ga-PSMA scan in patients with Juvenile nasopharyngeal Angiofibroma, Otorhinolaryngology—Head and Neck Surgery
19. Evaluation of clinical features and treatment outcomes in patients with skull base osteomyelitis, Otorhinolaryngology—Head and Neck Surgery
20. Comparative analysis of orbital volume in 3D-model assisted mesh adaptation versus conventional technique in reconstruction of orbital floor fracture, Oral and Maxilla-Facial Surgery
21. Coblation Assisted Endoscopic Excision of Juvenile Nasopharyngeal Angiofibroma: A Prospective Pilot Study (ENT, Otorhinolaryngology—Head and Neck Surgery
22. Comparison of outcomes in post cochlear implantation children with and without congenital inner ear malformation, Otorhinolaryngology—Head and Neck Surgery
23. Comparison of identification rate of fluorescein plus methylene blue vs technetium Sulphur colloid plus methylene blue for detection of sentinel node in ladies with operable breast cancer, Surgery
24. Systematic management strategy of axilla in women with operable breast cancer- With randomization of node positive patients to Level 1 vs complete axillary lymph node dissection, Surgery
25. Evaluation of the role of radical radiotherapy in achieving pathological complete remission in breast cancer patients with complete clinical remission following neoadjuvant chemotherapy—A superiority randomized controlled trial, Surgery
26. Comparison of cosmetic outcome and resection margins following intra-operative ultrasound guided excision with conventional palpation guided breast conservation surgery in breast cancer—A randomized controlled trial, Surgery
27. Proteomics of axillary sentinel lymph node tissues in early breast cancer: Implications for identification of biomarker to guide surgical intervention, Surgery
29. Inter-Institutional Programme for Maternal, Neonatal and Infant Sciences: A translational approach to studying Preterm Birth, Paediatrics
30. Immunophenotypic profile of tumor infiltrating cells of the immune system and expression of PDL1 in triple negative/Her-2 neu positive breast cancer patients and their correlation with response to neoadjuvant chemotherapy, Pathology
31. Whole body MRI in the assessment of metastatic disease of osteosarcoma and Ewing’s sarcoma, Orthopaedics
32. Minimally Invasive Autopsy (MIA) in the evaluation of fetal malformations and stillbirths, Department of Paediatrics
33. Incidence and risk factors of preterm brain injury (periventricular leukomalacia and/or intraventricular hemorrhage) in very low birth weight neonates (32 weeks gestation or and less than 1,500 gm birth weight): A prospective cohort study, Department of Paediatrics
34. A prospective randomized trial comparing laparoscopic versus endoscopic drainage for walled off necrosis following acute pancreatitis, Department of Surgery
35. A randomized sham controlled clinical trial of targeted low frequency repetitive transcranial magnetic stimulation in childhood focal onset refractory epilepsy, Department of Paediatrics
36. Muscle ultrasound in children with peripheral hypotonia in children aged 1 month- 18 years, Department of Paediatrics
37. Evaluation of changes in measured GFR, echocardiography, markers of bone mineral metabolism and carotid intima media thickness after renal donation, Department of Nephrology
38. DTT, IMRI and qEEG correlates of cognition and behavior in children and adolescents with well controlled non-lesional epilepsy: An observational study, Department of Paediatrics
39. VIRADS for carcinoma urinary bladder, Urology
40. $^{175}$Lu dosimetry in castration resistant prostate cancer, Nuclear Medicine
41. EBUS in Mediastinal lesions—Correlation with CT and PET-CT, Medicine
42. Comparison of mesotherapy with surgery in management of superficial lipomas, Surgical disciplines
43. Study to classify periorbital hyperpigmentation based on clinico-investigative profile, Dermatology
44. Anti-tubercular drug induced liver injury in patients with fatty liver, Medicine
45. To evaluate the role of computerized tomography in diagnosis of recurrence of treated post pulmonary tubercular patients, Medicine
46. Role of impulse ossicometry in the evaluation and follow up of newly diagnosed cases of interstitial lung disease, Medicine
47. To study the prevalence of obstructive sleep apnea in patients with interstitial lung disease, Medicine
48. Clinical radiological and functional correlation in treated pulmonary tuberculosis sequel patients, Medicine
49. Osteopontin as a Biomarker and Its Relationship with Phenotypic Severity Score in Enzyme Naive Children with Gaucher Disease, Department of Paediatrics
50. Prevalence of Non-Alcoholic Fatty Liver Disease (NAFLD) in Children with Down Syndrome, Department of Paediatrics
51. To study changes in muscle thickness and muscle echogenicity in critically illchildren, aged 1-18 years during their initial 7 day stay in PICU: An observational study, Department of Paediatrics
52. Evaluation of diaphragm function of ventilated children using Bed side ultrasonography, Department of Paediatrics
53. Minimally Invasive Autopsy (MIA) in the evaluation of fetal malformations and stillbirths, Department of Paediatrics (ICMR funded)
54. Prevalence of NAFLD and its association with cardio-metabolic risk factors in North India, Endocrinology
55. Modalities of therapeutic interventions and assessment of multisystem complications in idiopathic hypoparathyroidism, Endocrinology
56. Role of placental growth factor, uterine artery doppler and 3D doppler ultrasound of placenta for prediction of pre-eclampsia in high risk pregnancies, Obstetrics and Gynaecology
57. Evaluation of 2Dimensional and 3Dimensional Ultrasonography in preoperative assessment of adnexal masses, Obstetrics and Gynaecology
58. Prospective Pilot Study for Evaluating Incidence of Occult Lymph Node Metastasis in Patients of Olfactory Neuroblastoma, Otorhinolaryngology—Head and Neck Surgery
59. Association between therapeutic drug levels and worm infestation with treatment response in patients with TB lymphadenitis, Medicine
60. Comparison between two regimen of intermittent Ulipristal Acetate treatment in management of uterine myomas: Pilot study, Obstetrics and Gynaecology
61. Prevalence of Non-Alcoholic Fatty Liver Disease in Indian Young Adults (18-30 years): Pilot Study, Medicine
62. Correlation of placental vascularization indices and placental elastography in IUGR pregnancies with perinatal outcome: A case control study, Obstetrics and Gynaecology
63. Evaluation of quantitative and qualitative bone healing following application of Low-Level Laser Therapy (LLLT) during consolidation period of mandibular distraction osteogenesis, Oral and Maxillofacial Surgery
64. Correlation of first trimester metabolic parameters and maternal body fat indices with development of gestational diabetes mellitus in Asian Indian women- a comparative study, Obstetrics and Gynaecology
67. Systemic effect of surgery in obstructive sleep apnea severity—An evaluation with inflammatory markers, Otorhinolaryngology—Head and Neck Surgery
68. Study of risk factors for breast cancer in Indian women: A case control study, Breast Endocrine and General Surgery
69. Role of ultrasound in predicting depth of tumor invasion and lymph node metastasis in early tongue carcinoma, Otorhinolaryngology—Head and Neck Surgery
70. A phase IIIB Open Label Randomized trial to evaluate the anti-bacterial activity, pharmacokinetics, safety and tolerability of Metformin when given along with rifampicin, isoniazid, pyrazinamide and ethambutol in adults with newly diagnosed sputum positive pulmonary tuberculosis: An 8-week study, Pulmonary Medicine and Sleep Disorders
71. A Phase III, Randomized, Double-blind, Placebo controlled Trial to Evaluate the Efficacy and Safety of VPM1002 and Immuvac Vaccines in Preventing Tuberculosis (TB) in Healthy Household Contacts of Newly Diagnosed Sputum Positive Pulmonary TB Patients, Pulmonary Medicine and Sleep Disorders

72. Sonographic carotid velocimetry as a predictor of fluid responsiveness in patients, Medicine

73. Economic Burden, Prevention and Control of Pneumonia among Elderly, Centre for Community Medicine

74. Prosthetic material(mesh) anchored by mechanical device versus glue during laparoscopic repair of ventral hernia: A double blind randomized controlled trial, Surgical disciplines

75. Oncological outcomes of breast conservation surgery in patients with locally advanced breast cancer post neo-adjuvant chemotherapy, Surgical disciplines

76. Feasibility of Enhanced recovery after surgery protocol in general thoracic surgery: Prospective cohort study, Surgical disciplines

77. Assessment of Post Cholecystectomy Symptoms and Quality of Life Evaluation: A Prospective Cohort Study, Surgical disciplines

78. To study the significance of tumour infiltrating lymphocytes in breast cancer patients, Surgical disciplines

79. Study of risk factors for breast cancer in Indian women: A case control study, Surgical disciplines

80. Outcomes following minimal access thymectomy in patients with thymoma, Surgical disciplines

81. Double blind randomized control trial to assess the outcome of pulley release and pulley reconstruction for de Quervain’s tenosynovitis, Orthopaedics

82. Comparison of mesotherapy (non operative) with surgery in management of superficial lipomas, Department of Surgical Disciplines

83. Abdominal infections in immunocompromised hosts: A Radiological, Microbiological and Clinical Correlation, Hematology

84. Derivation of nomograms for aortic and iliofemoral dimensions using multidetector computed tomography in the Indian population, Cardiac Radiology

85. Role of contrast enhanced USG in assessing activity in nonspecific aortoarteritis, Cardiac Radiology

86. Incidence and outcome of neutropenic enterocolitis in paediatric cancer patients, Department of Paediatrics

87. To compare the diagnostic performance of Whole-Body Low Dose Computed Tomography (WB LDCT) and Conventional Skeletal Survey (CSS) in diagnosis and management of patients with Multiple Myeloma (MM) in a tertiary care center, Hematology

88. Role of contrast enhanced ultrasound in the diagnosis of hepatocellular carcinoma in patients of cirrhosis and in the assessment of tumor response after percutaneous ablation, Gastroenterology

89. Assessment of liver fibrosis in patients with Chronic liver disease using Transient elastography, Shear wave elastography and Serum biochemical markers, Gastroenterology

90. Assessment of tumor response to locoregional therapy in patients of Hepatocellular carcinoma using shear wave elastography, Gastroenterology

91. Comparison of Transarterial radioembolization versus Transarterial chemoembolization in the management of intermediate Hepatocellular Carcinoma: A Randomized Control Trial, Gastroenterology, Nuclear Medicine

92. Role of microRNAs as a biomarker in hepatocellular carcinoma, Gastroenterology

93. Role of Liquid Biopsy Biomarkers in Hepatocellular carcinoma and Hepatitis B virus induced carcinogenesis, Gastroenterology

94. Ultrasound Assessment of Gastric Emptying of Clear Fluids with Different Energy Content in Children: A Crossover Pilot Study, Anesthesiology

95. The pattern of visual impairment in spectrum of hypoxic ischaemic encephalopathy, Ophthalmology

96. Evaluation of the outcome of Intra lesional Bleomycin in orbital lymphangioma, Ophthalmology

97. Role of MR guided biopsy in detection of prostate cancer, NMR

98. Retro prospective Study Evaluating Correlation between Proposed MRI based Optic Nerve Staging in Extraocular Retinoblastoma with Clinical Outcome and Prospective Evaluation of Optic Nerve Enhancement without Optic Nerve Thickening, Ophthalmology

99. Effects of use of bolster and its orientation on kidney position in reference to prone percutaneous nephrolithotomy, Urology

100. Interstitial lung Diseases: Texture based analysis for quantification, CSIR-IGIB
1. Role of MRI in evaluation of multifocality in hepatoblastoma and correlation of VEGF with multifocality, Paediatric Surgery
2. Analgesic efficacy and safety profile of Glossopharyngeal nerve block using extraoral approach by landmark technique versus ultrasound guided technique in patients with Eagle’s Syndrome, A randomized, prospective, controlled trial, Anesthesiology
3. Assessment of depth of invasion in oral cavity squamous cell carcinoma by clinical palpation and radiology and their correlation to histopathological depth of invasion, Otorhinolaryngology—Head and Neck Surgery
4. Efficacy of intrabronchial voriconazole instillation for inoperable pulmonary aspergilloma: A randomized controlled trial, Pulmonary Medicine and Sleep Disorders
5. An observational study of the clinicopathological profile and outcomes in patients with Lung Cancer at A Tertiary Care Center, Pulmonary Medicine and Sleep Disorders
6. Surgical outcome of patients with pulmonary aspergilloma—An Observational Study, Surgery
7. Evaluation of epidermal growth factor receptor (EGFR) expression in cholesteatoma sac in different types of pneumatization of temporal bone, Otorhinolaryngology—Head and Neck Surgery
8. Comparison of cosmetic outcome and resection margins following intra-operative ultrasound guided excision with conventional palpatation guided breast conservation surgery in breast cancer—A Randomized Controlled Trial, Surgical disciplines
9. Ambispective cohort study to evaluate oncological and aesthetic outcomes of skin sparing mastectomy with implant, Surgical disciplines
10. To establish algorithm for management of axilla in patient with clinically axillary lymph node negative early operable breast cancer, Surgical disciplines
11. Study pattern of HIV Drug resistant mutations in HIV patients co-infected with active tuberculosis, Medicine
12. Role of inflammation in Indian women with Polycystic Ovary Syndrome (PCOS) and its modulation by dietary factors, Endocrinology
13. Study of the utility of FDG-PET/CT Vs CECT for the evaluation of fever of more than 4 weeks duration in HIV/AIDS (AIDS associated PUO), Medicine
14. Gallium-68 (Ga-68)-labeled PSMA PET/CT in the evaluation of prostate cancer patients, Nuclear medicine
15. To study the effect of platelet rich plasma therapy on Leprosy related peripheral neuropathy, Dermatology
16. Evaluation of gene expert in tubercular lymphadenopathy, Medicine
17. Treatment outcomes in patients with MDR/XDR, A prospective study, Medicine
18. Preoperative prediction of tumor angiogenesis by DW MRI and perfusion CT in renal cell carcinoma and using these biomarkers to predict tumor grade in advanced renal cell carcinoma, Urology
19. Opportunistic infection in AIDS, Medicine
20. Role of chest radiograph in predicting length of central line, Anesthesiology
21. Role of cytokines in severe dengue infection, Medicine
22. Pulmonary infections in renal transplant recipients: A prospective cohort observational study, Nephrology
23. Role of PET-CT and DWI in evaluation of tumor angiogenesis and treatment response in advanced carcinoma lung, Nuclear Medicine
24. Diagnosis of patients of oligo arthritis with special reference to brucellosis and Lyme’s Disease, Medicine and Microbiology (Infectious diseases)
25. Pilot study to assess the role of metabolic imaging in patients with undiagnosed abdominal pain, Surgical disciplines
26. A split face randomized controlled study comparing the efficacy of fractional CO2 laser and micro needling in the treatment of acne scars. A split face randomized controlled study comparing the efficacy of fractional CO2 laser and micro needling in the treatment of acne scars, Dermatology and Venereology
27. Variation of different methods of physical examination for swelling in thyroid region in adolescent and adult: Cross-sectional study, Surgical disciplines
28. Bone Mineral Density in Children and Adolescents with Congenital Adrenal Hyperplasia receiving Physiological Steroid Replacement, Department of Paediatrics
29. Prevalence and Risk Factors of Allergic Bronchopulmonary Aspergillosis in Children with Poorly Controlled Asthma, Department of Paediatrics
30. Role of MRI in evaluation of multifocality in hepatoblastoma and correlation of VEGF with multifocality, Department of Paediatric Surgery
31. Assessment of depth of invasion in oral cavity squamous cell carcinoma by clinical palpation and radiology and their correlation to histopathological depth of invasion, Otorhinolaryngology—Head and Neck Surgery
32. Analgesic efficacy and safety profile of Glossopharyngeal nerve block using extraoral approach by landmark technique versus ultrasound guided technique in patients with Eagle’s Syndrome, A randomized, prospective, controlled trial, Anaesthesiology, Pain Medicine and Critical Care
33. To Compare the Efficacy of Ulipristal Acetate versus GnRH Agonist in Women with Symptomatic Uterine Myoma and Post treatment Follow Up: A Prospective Randomized Control Study, Obstetrics and Gynaecology
34. Applicability of Laparoscopic Ultrasound in Various Intra-Abdominal Pathologies, A Prospective Observational Study, Surgical disciplines
35. Achalasia cardia: Long term outcome and assessment of factors predicting outcome following laparoscopic Heller’s cardiomyotomy, Surgical disciplines
36. Lung Ultrasound for diagnosis of early Ventilator associated pneumonia in critically ill, Anaesthesia

PUBLICATIONS
Journals: 95  Abstracts: 5  Chapters in books: 55  Books: 2

PATIENT CARE

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<th>S. No.</th>
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<td>Routine X-rays</td>
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<td>Interventional Non-Vascular studies</td>
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AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Arun Kumar Gupta was executive committee member of ‘Indian Journal of Paediatrics’.

Professor Deep Narayan Srivastava elected as President of the section of Medical Sciences for 2019-2020 and also Council Member of the “Indian Science Congress Association (professional body under Ministry of Science and Technology, Government of India); Associate Editor, Annals of the National Academy of Medical Science (India) published by National Academy of Medical Sciences, New Delhi; Member of editorial advisory board of Indian science congress association journal “Everyman’s science” for 2019-2020.

Professor Raju Sharma: Key Note Address in the Research and Referral Hospital CME on Imaging, 28 July 2019, New Delhi; Dr MVK Shetty Oration delivered at the Joint Annual Conference of Asian Oceanian Society of Paediatric Radiology and Indian Society of Paediatric Radiology, held at PGIMER, Chandigarh; Delhi Imaging Update Oration delivered at the Annual Conference of Delhi State Chapter of Indian Radiology and Imaging Association, held on 16 February 2018, Maulana Azad Medical College Delhi.

Professor Sanjay Sharma was Editorial Board Member JCIR: Uro-Radiology Section; Consulting Editor (Radiology), Indian J Urology; External expert for ICMR, for assessing extra mural funded project June 2018.

Professor Ashu Seith Bhalla was President of Society of Chest Imaging and Interventions; Joint Editor Indian Journal of Radiology and Imaging.

Professor Shivanand Gamanagatti was Fellow of Indian College of Radiology; Dr Diwan Chand Agarwal Memorial Oration: Imaging, Interventions and future in hepatocellular Carcinoma, 72nd Annual Conference of IRIA, PGIMER, Chandigarh.

Professor Atin Kumar delivered NG Gadekar Oration of Indian College of Radiology and Imaging 2018; Elected ‘President Elect’ of Delhi Chapter of Indian Radiological and Imaging Association for 2019; Worked as Treasurer of Delhi Chapter of Indian Radiological and Imaging Association for 2018; Organizing Secretary of CME on IR Primer on Basics of Angiography, Embolization and Sclerotherapy.

Dr Chandan J Das was FRCP (Edin) Fellow of Royal College of Physician, Edinburg, UK; FICR (Fellow of Indian College of Radiology); Member, National Academy of Medical Sciences; Onco Imaging Award 2017-2018 by Indian College of Radiology and Imaging (India); ICMR International Fellowship for young Biomedical Scientist; 2018-2019 to visit MD Anderson Cancer Centre, USA.

Dr Devasenathipathy Kandasamy was section editor for Springer Nature Comprehensive Clinical Medicine; Member of Subject Expert Committee of Central Drugs Standard Control Organization.


Dr Manisha Jana: MD thesis as a chief guide ‘Role of Shear Wave Elastography in Diagnosis, Prognostication and Follow Up of Neonatal/Infantile Cholestatic Liver Diseases’ won gold medal in Professor K Subbarao Award for the best thesis in 2018; Selected as ‘Reviewer of the year’ by the Indian Journal of Radiology and Imaging (IJRI) in 2018.

Dr Ankur Goyal received Academic Excellence Award in recognition and appreciation of contribution to promoting academics in Radiology and imaging sciences, Awarded at Delhi Imaging Update 2019 held at MAMC, New Delhi (16-17 February 2019); Joint Organizing Secretary, Delhi Imaging Update DIU 2019 Annual Conferences of Delhi state chapter of IRIA; Joint Organizing Secretary in “AIIMS Radiology Course: IR primer on Basics of DSA, Sclerotherapy and Embolization” held in New Delhi on 14-15 April 2018; Joint Secretary, Delhi State Chapter of IRIA (2018-2019).


Dr Shashi Paul was member of the ‘Task force on Hepatocellular carcinoma’, formed by the Indian National Association for the study of Liver (INASL).
Dr Smita Manchanda was Invited as external expert of Radiodiagnosis at “All India Radio” for the health programme “Sanjeevani—Baat Sehat Ki” aired on ‘AIR Vividh Bharti’ channel in May 2018; Core member of “Technical Committee for finalized of Guidance Note on Permanent Medical Boards for Medical Termination of Pregnancy beyond 20 weeks of Gestation” (May 2018); Organizing Secretary “AIIMS Radiology Courses: Imaging of Chest Infections 2018” held at AIIMS, New Delhi on 4-5 August 2018; Core member of “Committee for formulation of Guidelines on Prevention and Management of Zika virus in a Pregnant mother” (October 2018).

Dr Surabhi Vyas was Chairing session on competitive papers BISICON Patna India 16, 17 November 2018.

VISITING SCIENTISTS

1. Dr Vikas Gulani, Professor of Radiology, Case Western University, Ohio, USA
2. Dr Ajay Singh, Massachusetts General Hospital, Harvard University, USA
3. Dr Aseem Sharma, Mallinckrodt Institute of Radiology, Washington University, St. Louis, USA
4. Dr Akhsay Baheti, Tata Memorial Hospital, Mumbai

<table>
<thead>
<tr>
<th>9.37. Reproductive Biology</th>
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<tbody>
<tr>
<td><strong>Professor and Head</strong></td>
</tr>
<tr>
<td>Ashutosh Halder</td>
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<tr>
<td><strong>Professor</strong></td>
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<tr>
<td>Pradeep Kumar Chaturvedi</td>
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<tr>
<td><strong>Assistant Professors</strong></td>
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<td>Surabhi Gupta</td>
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<tr>
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<tr>
<td>Deepak Pandey, Scientist II</td>
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<td>Manish Jain, Scientist I</td>
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<td>Neeraj Kumar, Scientist II</td>
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<td><strong>Group A Officer</strong></td>
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<td>Mariama Mathew</td>
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HIGHLIGHTS

Department is mainly involved in teaching, training and research besides providing genetic counseling and diagnostic services for reproductive disorders, congenital malformations, cancers and infertility in molecular cytogenetic lab; laboratory analysis of reproductive hormones, thyroid profile and cancer markers in CRIA facility; semen analysis services in andrology lab. Most of reproductive genetic counseling cases were self-referral. In CRIA facility newer tests such as TOXO-IgG, TOXO-IgM, Rubella-IgG, Rubella-IgM, CMV-IgG and CMV-IgM were introduced last year for in and out patients apart from 40 parameters regularly done. CRIA facility has done 2,37,956 tests this year an increase of approximately 33,000 tests from last year. Department has also started online reporting for these tests. Molecular cytogenetics laboratory is also provided various FISH and PCR related services.

Faculty members of the department were invited by several national academics for different academic contributions (NII Stem Cell Committee, NABL Core Accreditation Committee, Ministry of Agriculture expert (pesticides) meeting, ICMR APS and ad hoc/SRF Project Review/ Selection Committee, MCI assessment for DM (medical genetics) Courses, PAC and IRB Committee Member of NIHFW, Ayush, etc).

EDUCATION

**Students**

PhD (Registered/Ongoing) - 5
MSc (Reproductive Biology and Clinical Embryology) - 10
Postgraduate- MD Laboratory Medicine (Laboratory training for 15 days)
MD Biochemistry (Laboratory training for 15 days)
JRF/SRF- 3
**Academic activities**

Twice a week course lecture  
Weekly seminars and journal clubs  
Biweekly laboratory data presentation  
Day to day case wise/laboratory work discussion

**CMEs/Workshops/Symposia/National and International Conferences**

1. Department (along-with Prader Willi Syndrome Association of India) conducted half day Symposium on Prader Willi Syndrome, 12 September 2018, AIIMS, New Delhi  
2. Department conducted one National Workshop on Molecular Cytogenetics (Probe production for FISH), 12-16 November 2018, AIIMS, New Delhi

**Lectures delivered**

**Ashutosh Halder**

1. Clinical application of cytogenetics, 26th UP ASICON 2018, 6 October 2018, Kalam Convention Center, KGMU, Lucknow  
2. An overview on Molecular Cytogenetics, National Workshop on Molecular Cytogenetics: In House FISH Probe Production, 12-16 November 2018, AIIMS, New Delhi  
3. Genetics and Genomics of Infertility and Demonstration of Microarray/aCGH, Current Trends in Genomic and Molecular Medicine and The First Indo-UK Training Workshop, 19-21 November 2018, King George Medical University, Lucknow  
4. Medical Applications of Cytogenetics, Molecular cytogenetics and cytogenomics, Genetics and Genomics in Human Health and Diseases, 7-8 December 2018, Centre of Genetics and Genomics, MGIMS, Wardha, Maharashtra  
5. Genetics and Genomics Human Reproductive disorders, Genetics and Genomics in Human Health and Diseases, 7-8 December 2018, Centre of Genetics and Genomics, MGIMS, Wardha, Maharashtra  
6. Potential biomarkers of polycystic ovary syndrome, ICRED and 37th Meeting of Society for Reproductive Biology and Comparative Endocrinology (SRBCE), 19-21 January 2019, Navrachana University, Vadodara, Baroda, Gujarat  
7. Genomics and epigenomics of infertility, 18th Annual Laboratory Management and Medicine Congress (Medlab Middle East) and Cytogenetics IVF Conference, 7 February 2019, Dubai Convention Centre, UAE  

**Surabhi Gupta**


**Mona Sharma**

1. Infertility, Genetics and beyond, National conference of Anatomical Society of India (NATCON 66), AIIMS, Rishikesh, 11 November 2018, India

**Oral papers/posters presented**


**RESEARCH**

**Funded projects**

**Ongoing**

1. An investigation to find out reasons for Phenotypic Heterogeneity/Variability in 22q11.2 deletion Syndrome, Ashutosh Halder, ICMR, 3 years, 2015-2018, Rs 41 lakhs
2. Poly Cystic Ovarian Syndrome (PCOS): An investigation to find out reasons for discrepancy between hyperandrogenism (clinical) and hyperandrogenemia (biochemical) and underlying etiologic (epigenetic and genetic) factors, Ashutosh Halder, DST-SERB, 3 years, 2018-2021, Rs 51 lakhs
3. An investigation to find out genetic factors in idiopathic familial ovarian failure, Ashutosh Halder, DST-SERB, 3 years, 2018-2021, Rs 44 lakhs
4. Quality control for hCG kits, PK Chaturvedi, HLL Lifecare Ltd/Ministry of Health, Yearly, 2018-2019, Rs 9 lakhs
5. Effects of Non-ionizing Electro Magnetic Field (EMF) on Human Health (referral center), PK Chaturvedi, ICMR, 5 years, 2017-2022, Rs 15 lakhs
6. Phase II clinical trial with an intravasal injectable male contraceptive-RISUG, PK Chaturvedi, ICMR, 1 year, 2018-2019, Rs 3 lakhs
7. Role of 3,5,3’-L-triiodothyronine (T3) in the modulation of VEGF expression and Leydig cell function, Surabhi Gupta, DBT, 3 years, 2016-2019, Rs 39 lakhs
8. Generation of genome-edited mice using CRISPR/Cas-9 based knock-out/knock-in technology to study mammalian sperm-egg fusion, Surabhi Gupta, DBT, 3 years, 2017-2020, Rs 75.5 lakhs
9. Embryo-uterine cross-talk for implantation and beyond: Role for exosomal microRNAs, Surabhi Gupta, DST-SERB, 3 years, 2018-2021, Rs 44.2 lakhs
10. Study of potential sperm factors and related signaling pathways in eliciting oocyte intracellular calcium rise, Mona Sharma, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
11. HDAC inhibitor(s) mediated genome-wide dynamics of healthy aging in Caenorhabditis elegans, Neeraj Kumar, DST-SERB, 3 years, 2017-2020, 50 lakhs
12. Elucidating health-span regulatory modules by genome-wide combinatorial effects of transcription factors downstream of insulin signaling, Neeraj Kumar, DBT, 3 years, 2018-2021, Rs 50 lakhs
13. To elucidate the oxidative stress mediated regulation of turnover and translation regulatory mRNA binding proteins (TTR-RBPs) during embryo development, Neeraj Kumar, AIIMS, 2 years, 2017-2019, Rs 10 lakhs
14. To study the effects of dietary flavonoids on prostate epithelial cells growing under the influence of prostate stromal cells, Deepak Pandey, AIIMS, 2 years, 2017-2019, Rs 10 lakhs
15. High resolution Genomic Screening using SNP Microarray to find out Genomic Causes in Idiopathic Sertoli Cell Only Syndrome (SCOS) cases, Manish Jain, AIIMS, 2 years, 2017-2019, Rs 10 lakhs

**Departmental projects**

**Ongoing**

1. Etiopathology of Macroprolactinemia
2. Etiology and biomarker of polycystic ovarian syndrome
3. The genetic determinants of premature ovarian failure
4. Analysis of anti-cancer activity of herbal extracts on prostate cancer cell lines
5. Role of miR-143-3p in modulating Trophoblast cell invasion
6. Epigenetic changes during epithelial to mesenchymal transition in trophoblast cells under physiological and pathological conditions
7. Role of microRNAs in regulation of angiogenic factors in trophoblast cells
8. Citrate synthase expression in human sperm and oocyte activation in mice
9. To study the effect of Oxidative stress on the expression of mRNA 3’ UTR binding protein genes in early embryo development
10. Effects of dietary flavonoids on hormone mediated stromal-epithelial interaction in prostate cells
11. An investigation to find out genetic factors in idiopathic familial ovarian failure

Completed

1. Testicular Germ cell arrest (maturation arrest): An Investigation of Phenotype-Genotype Correlation
2. Spermiation defect: Role of heavy metal, Vitamin A and sertoli cell maturity
3. Rapid Detection of Chromosome 13 and 21 Aneuploidy by Primed In Situ Labeling
4. Chromosome mosaicism and aneuploidy in preimplantation mouse embryo
5. Double blind randomized clinical trial of polyherbal preparation Ashokarista on post- menopausal women
6. Role of cytokines in premature ovarian failure
7. Evaluation of molecular basis of clinical aggressiveness in cervical carcinoma of young age
8. Biological basis of skewed sex ratio
9. Genetics of primary testicular failure
10. Effect of pregnancy hormones on HLA-G expression in trophoblast cells
11. Mutational Analysis of HS6ST2: A Candidate Gene in Idiopathic Premature Ovarian Failure
12. Effect of L-acetyl carnitine on TNF-alpha Induced Apoptosis in mice follicles
13. To study the role of conserved RNA binding proteins (RBPs) in reproductive aging using Caenorhabditis elegans as model system
14. Assessment of HDACi on embryo developmental competence during reproductive aging
15. To study the effects of selenium and Vitamin E on prostate cells
16. Genetic study on Sertoli Cell Only Syndrome (SCOS)

Collaborative projects

Ongoing

1. Role of Bone Marrow Microenvironment in Multiple Myeloma, Medical Oncology, IRCH
2. Understanding the pathophysiology of endometriosis by protein profiling and correlation with stress, Physiology
3. Molecular Genetic Evaluation of Unexplained Stillbirths, Genetics Unit, Paediatrics
4. Unique aspects of idiopathic hypoparathyroidism, Endocrinology
5. MicroR A and hTERC gene profiles as biomarkers in oral potentially malignant and malignant lesions, CDER
6. Impact of parental history of type 2 diabetes … in Indian women with PCOS, Endocrinology
7. Impact of Checkpoint inhibitors on suppressed state of immunity in tuberculosis, Transplantation Immunology and Immunogenetics
8. Reference range of serum alpha fetoprotein in Indian children below 3 years of age, Paediatric Surgery
9. Age specific nomogram of Anti Mullerian Hormone and Antral follicle counts in infertile and fertile Indian women, Obstetrics and Gynecology
10. Role of Plasma Renin Activity in predicting renal damage in patients with neurogenic bladder and its correlation with existing parameters of renal damage, Paediatric Surgery
11. Role of miRNA mediated modulation of signal transduction in pancreatic cancer, Gastroenterology
12. To study the long-term effects of disease and its treatment in survivors of pediatric solid tumors, Paediatric Surgery
13. Effect of tyrosine kinase inhibitors on sperm parameters and pituitary gonadal axis in males with chronic myeloid leukemia, Hematology
14. Role of micro RNA-30 in cystathionine gamma lyase mediated trophoblast cell invasion and status in preeclampsia, Anatomy

Completed

1. Evaluation of C MET gene expression in gastric adenocarcinoma and co-relation with conventional clinic-pathological parameters, A descriptive study, Pathology, UCMS/GTB, Delhi University
2. Evaluation of hTERC amplification in cervical cytology specimens as a marker of histologic grade of cervical intraepithelial neoplasia, Pathology, UCMS/GTB, Delhi University
3. Study of clinico-dysmorphic profile and associated malformation in children with cardiac malformation, MAMC, Delhi University
4. Role of microRNA in Spermatogenesis, National Institute of Immunology, Delhi
5. Characterization of chromosomal anomalies in multiple myeloma using cytogenetics and FISH, Medical Oncology, IRCH
6. Molecular biology of Multiple Myeloma, Medical Oncology, IRCH
7. Molecular biology of early immature T-cell acute lymphoblastic leukemia, Laboratory Oncology, IRCH
8. Lymphocyte reconstitution and infectious morbidity post autologous hematopoietic stem cell transplantation, Department of Medical Oncology, IRCH
9. A prospective cohort study to measure the effectiveness of NISWANI in achieving regression of Fibroadenoma and Mastalgia, National Institute of Cancer Prevention and Research, Noida, UP; Surgery
10. Comparison of high spermatic vessel ligation, low spermatic vessel ligation in rat testis, Paediatric Surgery

PUBLICATIONS
Journals: 6 Abstract: 1 Chapters in book: 1

PATIENT CARE

- **Patient care in outpatient service:** Department of Reproductive Biology is not part of standard outpatient service. Over 100 cases were referred to Dr Halder, mainly from other hospitals of Delhi or self referral for Counseling/Planning of Management/Advice and related to Reproductive Genetics in particular Male Primary Hypogonadism, Recurrent Abortion, Recurrent IVF failure, Genetic Disorders and Malformation Syndromes
- **Work load in the form of laboratory service:** Additional molecular cytogenetict technique was standardized in addition to ongoing fluorescent in situ hybridization services using STR/microsatellite markers and used for patient care
- **Special laboratory facilities in Department of Reproductive Biology, AIIMS**

Molecular Cytogenetics laboratory

a. Microdeletion FISH on blood (Interphase/ Metaphase cell), buccal cell, urine cell, solid tissue, etc. Total 300 patients have been recruited which all are suspected microdeletion syndrome. FISH and QF-PCR of all cases were done in Molecular Cytogenetic lab. New technique such as Methyl Specific PCR for PWS cases was standardized and started facility of Methyl Specific PCR. Microdeletion Syndromes for which genetic facility is given are:
   - DiGeorge syndrome (22q11.2)
   - William syndrome (7q11.23)
   - Prader Willi syndrome (15q11.13)
   - Retinoblastoma (13q)
   - Miller decker syndrome (17p13.3)
   - Langer Giedion’s syndrome (8q24.11)
   - 1p36.13
   - Wolff Hirschhorn (4p16.3)
b. Prenatal FISH (Amniotic fluid cells/chorionic tissue)
   - Trisomy 21 (Down syndrome)
   - Trisomy 18 (Edward Syndrome)
   - Trisomy 13 (Patau Syndrome)
   - Any autosomal aneuploidies (on request)
c. Karyotyping (only research use)
d. Sex Chromosome FISH (X, Y, SRY: only research and infertility)
e. Yq Microdeletion PCR (Cover app. 20 primer)
f. PRINS (Chromosomes 13, 18, 21, X, Y)
g. QF-PCR (DG, WS, PWS, RB, MD, Langer-Giedion’s, Trisomy 13, 18, 21, etc.)
h. Methyl Specific PCR (PWS)
i. DNA Microarray for Microdeletion Syndrome/Primary Testicular Failure
**CRIA Facility:** Routine assays of 41 parameters for LH, FSH, Prolactin, T3, T4, TSH, Testosterone, Estradiol, Progesterone, alpha Feto-Protein, Prostate Specific Antigen (PSA), Beta hCG, CA-125, cortisol and Vitamin D, Anti TPO, Anti Tg, free T3, free T4, BNP, Troponin I, CKMB, Homocysteine, SHBG, CEA, CA 19.9, CA 15.3, Free PSA, Pro Grp, HE4, Active B12, Ferritin, Folate, Insulin, PTH, C-peptide, HbA1c and anti CCP, DHT,17 Hydroxy progesterone, ACTH, GH, Inhibin B and AMH in Procalcitonin (PCT) the blood samples of in and out patients were carried out in the facility. New tests such as TOXO-IgG, TOXO-IgM, Rubella-IgG, Rubella-IgM, CMV-IgG and CMV-IgM were also started last year.

<table>
<thead>
<tr>
<th>Name of assay</th>
<th>Number of tests done</th>
<th>Name of assay</th>
<th>Number of tests done</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSH</td>
<td>8,094</td>
<td>Anti CCP</td>
<td>3,481</td>
</tr>
<tr>
<td>LH</td>
<td>7,042</td>
<td>PTH</td>
<td>12,090</td>
</tr>
<tr>
<td>Prolactin</td>
<td>6,260</td>
<td>ANTI-TPO</td>
<td>1,224</td>
</tr>
<tr>
<td>DHEA-S</td>
<td>552</td>
<td>Insulin</td>
<td>1,909</td>
</tr>
<tr>
<td>Total T3</td>
<td>20,340</td>
<td>Procalcitonin</td>
<td>3,645</td>
</tr>
<tr>
<td>Total T4</td>
<td>24,535</td>
<td>Anti TG</td>
<td>174</td>
</tr>
<tr>
<td>TSH</td>
<td>48,600</td>
<td>BNP</td>
<td>287</td>
</tr>
<tr>
<td>Testosterone</td>
<td>2,253</td>
<td>Free T3</td>
<td>432</td>
</tr>
<tr>
<td>Estradiol</td>
<td>1,127</td>
<td>Free T4</td>
<td>506</td>
</tr>
<tr>
<td>Progesterone</td>
<td>279</td>
<td>Free PSA</td>
<td>126</td>
</tr>
<tr>
<td>AFP</td>
<td>5,692</td>
<td>Troponin I</td>
<td>319</td>
</tr>
<tr>
<td>PSA</td>
<td>3,299</td>
<td>GH</td>
<td>153</td>
</tr>
<tr>
<td>Beta hCG</td>
<td>1,626</td>
<td>TOXO-IgG</td>
<td>11</td>
</tr>
<tr>
<td>CA-125</td>
<td>2,974</td>
<td>TOXO-IgM</td>
<td>11</td>
</tr>
<tr>
<td>Cortisol</td>
<td>1,389</td>
<td>Rubella-IgG</td>
<td>4</td>
</tr>
<tr>
<td>Vitamin D</td>
<td>29,063</td>
<td>Rubella-IgM</td>
<td>6</td>
</tr>
<tr>
<td>Folate</td>
<td>10,632</td>
<td>CMV-IgG</td>
<td>17</td>
</tr>
<tr>
<td>Active Vitamin B12</td>
<td>14,729</td>
<td>CMV-IgM</td>
<td>17</td>
</tr>
<tr>
<td>CA19.9</td>
<td>2,138</td>
<td>DHT</td>
<td>15</td>
</tr>
<tr>
<td>CEA</td>
<td>2,322</td>
<td>17 OH progesterone</td>
<td>355</td>
</tr>
<tr>
<td>Ferritin</td>
<td>9,587</td>
<td>AMH</td>
<td>4,656</td>
</tr>
<tr>
<td>Research Samples</td>
<td>6,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2,37,956</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Number of tests performed has increased from 2,05,383 last year to 2,37,956 this year.

Andrology services were given to 60 patients that included complete sperm parameters (sperm counts, motility, vitality, morphology).

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Department Award**

Department oration named after “Professor KR Laumas” for year 2018 was received by Professor M Rajalakshmi.

**Isha Rishi** (MSc student) received Best Poster Award at 29th annual meeting of ISSRF on 22-24 February 2019 held in JNU, New Delhi.

**Kanika Aggarwal** (MSc student) received 3rd Best Poster award at AIIMS Annual Research Day held on 26 March 2019, at AIIMS, New Delhi.

**Professor Ashutosh Halder** was Task Force Member of Human Developmental and Disease Biology—Maternal and Child Health Programme of DBT; Task Force member of Medical Genetics of MCI; Assessment of physical and other teaching facilities at Kasturba Medical College, Manipal for DM—Medical Genetics course approval of MCI; Advisory Panel Expert Member (Genetics) of NAMS; Member of Programme Advisory Committee (PAC) and Institutional Review Board (IRB) of NIHFW; Member of Institutional Committee-Stem Cell Research (IC-SCR) of NII; Executive Member of MP PCOS Society; Accreditation Committee Member of NABL on Genetics and Cytogenetics; Expert Committee Member of CRAS (under Ministry of AYUSH); External Examiner for DM (Medical Genetics; SGPGIMS, Lucknow), Post Doctoral Fellowship (Clinical Cytogenetics; CDFD, Hyderabad) and PhD (thesis and viva) in various university (JNU, CDRI, DU, SGPGI, Bundelkhand University, Kerala University, etc); Assessment Board Member for promotion of AIIMS
Various Departmental Promotion Committee; Assessment Board Expert for promotion of ICMR scientists; PAC Committee Member, ICMR (SRF/RA projects); Selection Committee member for selection of Faculty, IGIMS, Patna; Reviewer/editorial board member for Current Science, Journal of Genetics, SM Journal of Gynecology and Obstetrics, Translational Biomedicine, Scholars Report, Science Alert, JAPI, Clinical Case Reports and Reviews, British Journal of Medicine and Medical Research, International Blood Research and Reviews, Journal of Clinical and Diagnostic Research, Indian Paediatrics, Sciencedomain international, Clinico Economics and Outcomes Research, Research in Public Health, Polish Ministry of Science and Higher Education/National Science Centre/National Centre for Research and Development (project review), ICMR (project/paper), etc; New citations over 100 (total over 900); was Editorial/Advisory Board/Executive Member of the following International Journals: Open Journal of Clinical Diagnostics of Scientific Research (publishes more than 200 open access journals); Journal Clinical Case Reports and Reviews (CCRR); JBR Journal of Clinical Diagnosis and Research; Asian Journal of Medical Sciences (until 2012); Austin Journal of Reproductive Medicine and Infertility; Bioinfo Publications Journals (publishes more than 70 open access and more than 70 subscription based peer reviewed journals); Global Journal of Human Genetics and Gene Therapy; Clinical Research and Development: Open Access; Asian journal of pharmaceutical and clinical research; National Journals: Journal of the Association of Physicians of India (Genetics section); Clinical Research and Development; Innovare Journal of Medical Science.

Professor Pradeep Kumar Chaturvedi was member of ethic committee for PG, AIIMS, Examiner for PhD and MSc PhD examiner IM Tech Chandigarh, Guwahati University, Calcutta University, NDRI Karnal, Reviewer of projects of Department of Biotechnology (DBT), Member Selection Committee ICMR), Member Expert Committee ICMR for review projects on Centre for Advance Research and also Ad-hoc projects, Reviewer Journal of Andrologia.

Dr Surabhi Gupta was expert reviewer for grants in Department of Biotechnology (DBT).

Dr Mona Sharma was expert reviewer of DBT proposals and book proposals (CRC Press).

VISITING SCIENTIST
At the National Workshop on Molecular Cytogenetics: In House FISH Probe Production, scientists who were invited for talks were:

1. Dr Ashish Fauzdar (Scientist, E.S.I. Hospital, Punjabi Bagh, New Delhi)
2. Dr Isha Choudhary (Scientist, Dr Lal Path Lab, New Delhi).

### 9.38. Rheumatology

<table>
<thead>
<tr>
<th>Professor and Head</th>
<th>Uma Kumar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant Professors</td>
<td>Sajal Ajmani (Contract)</td>
</tr>
<tr>
<td>Ranjan Gupta</td>
<td>Danveer Bhadu</td>
</tr>
</tbody>
</table>

HIGHLIGHTS
The department was created and notified in August 2015. It is providing state-of-art patient care services and is also instrumental in building resources which are required to deal with a massive load of patients with rheumatological illnesses. Because of space constraint department is able to conduct only two OPDs and one Rheumatology Clinic. It has a six-bed Rheumatology Day Care service which was started in 2012, first in India that is catering to the needs of patients requiring short admissions for various infusions, investigations, and procedures. Department has been on the forefront in research as well, it has research grant of Rs 2,31,32,711.00 from extramural sources and many collaborative projects. Departmental Clinical Immunology Lab caters to the whole hospital in terms of performing vast numbers of various immunological investigations. Realizing the need for trained Rheumatology specialists, short-term training to medical specialists from other organizations (India and abroad) is being provided regularly. Department has an active teaching programme and it is trying to start a super-specialty course ‘DM’ in Rheumatology. Educational activities to increase awareness about various rheumatological disorders among the public and medical professionals are regular features.

EDUCATION

UG lectures/Seminars and bedside teaching

1. Systemic sclerosis and overlap syndromes
2. Approach to a patient with polyarthritis
3. Management of rheumatoid arthritis
4. Scope of Clinical Immunology, present concept in autoimmunity and autoimmune disorders
5. Rheumatoid arthritis and Spondyloarthritis
6. Primary systemic necrotizing vasculitis
7. Systemic lupus erythematosus

Nursing classes
1. Primary immunodeficiency disorders
2. Allergy and hypersensitivity reactions
3. Overview of immune system
4. Inflammatory myositis
5. Small vessel vasculitis

Short term training provided to physicians
1. Dr Lov Raj Lohani, Nepal
2. Dr All Allaudin Mamun, Medical Officer, Bangladesh

CMEs/Workshops/Symposia/National and International Conferences
1. Public awareness programme on lupus, 10 May 2018, Delhi
2. Delhi Rheumatology Association Monthly Clinical Meeting, 26 November 2018, Delhi

Lectures delivered
Uma Kumar
1. Biologics in spondyloarthritis, AOTCON-Ortho Academia 2018, 30 March-1 Apr 2018, Pondicherry, TN
2. SpA and it's management, IMA-CME, 24 June 2018, Karnal, Haryana
3. Development of targeted nanomedicine for the treatment of Rheumatoid arthritis, CME, 4 July 2018, New Delhi
4. Changing Paradigm of AS, NSAIDs to biological (Treat to Target), Sponyloarthrits-2018, 11 August 2018, New Delhi
5. Evolution or Revolution in RA-Tofacitinib, MRACON 2018, 1-3 September 2018, Pune, Maharashtra
6. Air pollution and autoimmunity, IISF-2018 “Clean Air Campaign”, 6-7 October 2018, Lucknow, Uttar Pradesh
7. Aspects of Rheumatoid Arthritis, CME, 23 October 2018, Faridabad, Haryana
8. Cardiovascular comorbidities in RA, IRACON 2018, 6-8 December 2018, Guwahati
9. CTD related ILD (other than PSS), Symposium on ILD, 9 December 2018, New Delhi
10. Changing paradigm in treatment of AS-NSAIDs to biologics and ASAS-EULAR guidelines for management of SpA (place of biologics), RAISE Rheumatology Symposium, 21 December 2018, New Delhi
11. CPC, Annual conference of API Delhi, 23 December 2018, New Delhi
12. Panel discussion on evolving science of JAKi inhibitors inRA, Annual Conference of API, 22 January 2019, New Delhi
13. Biosimilars: A new era, APICON 2019, 8-10 February 2019, Kochi
14. Extra-articular manifestations of RA, Annual DRA Update, 3 February 2019, New Delhi
15. Biologic in Spondyloarthritis, Ortho Academia 2019, 2-4 March 2019, Goa

Ranjan Gupta
1. Principles of immunofluorescence test and trouble shooting, CME and Hands on WorkshopANA and ANCA in Autoimmune Diagnostics, 30 September 2018, Ahmedabad
2. Evidence based management in Sjogren’s Syndrome, IRACON 2018, 7 December 2018, Guwahati
3. Takayasu’s arteritis: An approach, DRA Update, 3 February 2019, New Delhi

Danveer Bhadu
1. Spondyloarthritis and its management, Silver Jubilee Annual Conference IMA, Rohini, 5 August 2018, Delhi
2. Emergencies in Rheumatology, Delhi Rheumatology Association Monthly Meeting, 26 November 2018, Delhi
3. Emergencies in Rheumatology, CME by IMA, 30 December 2018, Sikar
Oral papers/posters presented

1. Chowdhury K, Mitra DK, Kumar U, Das S, IL-17 producing iNKT cells correlate positively with disease activity DAS28-ESR in Rheumatoid arthritis, 5th European Congress of Immunology, 2-5 September 2018, Amsterdam, Netherlands


4. Gautam S, Kumar U, Kanga U, Kumar M, Dada R, Impact of mind body intervention on quality of life and markers of inflammation in Rheumatoid arthritis, Workshop cum Symposia on “Translational Research in Biomedical and Agricultural Sciences”, 6-7 July 2018, Department of Biochemistry, AIIMS, New Delhi, India


RESEARCH

Funded projects

Ongoing

1. A double blind, randomised, placebo-controlled trial evaluating efficacy and safety of oral nintedanib treatment for at least 52 weeks in patients with ‘Systemic Sclerosis associated Interstitial Lung Disease’ (SSc-ILD), Uma Kumar, Boehringer Ingelheim India Pvt Ltd, 4 years, 2015-2019, Rs 4.95 lakhs

2. T helper cells and their signature cytokines as biomarkers in lupus nephritis, Ranjan Gupta, SERB, DST, 3 years, 2015-2018, Rs 11 lakhs

3. CD163+ macrophages and sCD163 in blood and urine as marker of LN activity, Ranjan Gupta, Indian Rheumatology Association, 2 years, 2016-2018, Rs 1 lakh

4. Multi-institutional Network Programme on Systemic lupus Erythematosus: Understanding the diversity of SLE, Ranjan Gupta, DBT, 5 years, 2018-2023, Rs 99.85 lakhs
Collaborative projects

Ongoing
1. Effect of motor imagery on corticomotor excitability and pain status in rheumatoid arthritis patients, Anatomy
2. Evaluation of the role of Salivary Scavenger and Agglutinin (SALSA) and lectin pathway components in rheumatoid arthritis, Guru Gobind Singh University
3. Identifying the role of exogenous ATP in joint inflammation, South Asian University, New Delhi
4. Impact of yoga and meditation on epigenetic profile in rheumatoid arthritis, Anatomy, AIIMS
5. Interplay between innate and adaptive immunity in lupus: Inflammatory effects of apoptotic cell-reactive antibodies on neutrophils and monocytes, National Institute of Immunology, New Delhi
6. Musculoskeletal symptoms and their impact on the physical and psychological health in adolescent school children, Santosh University Ghaziabad
7. Rational use of drugs, Pharmacology
8. Understanding biology of Rheumatoid arthritis: Functional characterization of some/novel genetic determinants, Delhi University

Completed
1. Association of non-classical HLA -G Gene polymorphism in rheumatoid arthritis and impact of Yoga intervention on its levels, Anatomy
2. Development of targeted nanomedicine for the treatment of rheumatoid arthritis, Pathology

PUBLICATIONS
Journals: 10 Chapters in books: 2

PATIENT CARE
Department caters to large number of patients. In last one year approximately 25,000 patients attended outpatient department.

Facilities in the department
1. Rheumatology Clinic: 4,982 patients were seen
2. Rheumatology OPD: 5,312 new patients were seen and 22,000 follow up patients were seen
3. Rheumatology Day Care

<table>
<thead>
<tr>
<th>Pulse/Biological therapy</th>
<th>Intraarticular injections</th>
<th>Intramuscular injections</th>
<th>Subcutaneous injections</th>
<th>Biopsies</th>
<th>Difficult case discussion</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,423</td>
<td>1,045</td>
<td>136</td>
<td>569</td>
<td>39</td>
<td>510</td>
<td>102</td>
<td>3,824</td>
</tr>
</tbody>
</table>

4. Musculoskeletal Ultrasound: 101 (which includes guided procedure)
5. Clinical Immunology laboratory is equipped with Nephelometer, Immunofluorescence microscope, Polarized microscope, and ELISA

<table>
<thead>
<tr>
<th>RF</th>
<th>10,407</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANA</td>
<td>14,290</td>
</tr>
<tr>
<td>ANCA</td>
<td>7,314</td>
</tr>
<tr>
<td>ACL</td>
<td>6,340</td>
</tr>
<tr>
<td>AntiDsDNA</td>
<td>6,065</td>
</tr>
<tr>
<td>C3</td>
<td>345</td>
</tr>
<tr>
<td>Cryoglobulins</td>
<td>93</td>
</tr>
<tr>
<td>Anti LKM</td>
<td>2,673</td>
</tr>
<tr>
<td>ASMA</td>
<td>2,668</td>
</tr>
<tr>
<td>IgG, IgA, IgM</td>
<td>67</td>
</tr>
<tr>
<td>Synovial Fluid for crystal</td>
<td>424</td>
</tr>
<tr>
<td>Total</td>
<td>50,686</td>
</tr>
</tbody>
</table>
Community Service
Dr Uma Kumar

1. Participated in Medical Camp at Leh, Laddakh and Pratapgarh, UP
2. Organized public awareness programme on SLE at AIIMS
3. Writing in print media to increase awareness about rheumatological disorders
4. Participating in TV and Radio programs on arthritis

Organized Medical Camps

1. 30 September 2018 at Rail Vihar, Indirapuram, Ghaziabad, Uttar Pradesh and examined 138 patients
2. 14 October 2018 at Nanda Tower, Kaushambi, Ghaziabad, Uttar Pradesh and examined 63 patients
3. 10 February 2019 at BK Dutt Colony, New Delhi and examined 113 patients

Awareness programme on musculoskeletal health among adolescents at Schools of South Delhi

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of School</th>
<th>Date</th>
<th>Number of students attended</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sarvodaya Senior Secondary School, Masjid Moth, New Delhi</td>
<td>24 April 2019</td>
<td>450</td>
</tr>
<tr>
<td>2</td>
<td>Rajkiya PratibhaVikas Vidhyalaya Tyagraj Nagar, New Delhi</td>
<td>9 May 2019</td>
<td>440</td>
</tr>
<tr>
<td>3</td>
<td>Government Co-ed Senior Secondary School, Laxmi Bai Nagar, New Delhi</td>
<td>11 July 2019</td>
<td>200</td>
</tr>
<tr>
<td>4</td>
<td>Sarvodaya Senior Secondary School, Safdurjung Enclave, New Delhi</td>
<td>2 August 2019</td>
<td>500</td>
</tr>
<tr>
<td>5</td>
<td>Sarvodaya Senior Secondary School, Ekta Vihar, RK Puram, New Delhi</td>
<td>2019</td>
<td>500</td>
</tr>
<tr>
<td>6</td>
<td>Jose Marti Senior Secondary School, Sec 12, RK Puram, New Delhi</td>
<td>12 October 2019</td>
<td>980</td>
</tr>
<tr>
<td>7</td>
<td>Sarvodaya Senior Secondary School, Sec 7, RK Puram, New Delhi</td>
<td>5 November 2019</td>
<td>550</td>
</tr>
<tr>
<td>8</td>
<td>Sarvodaya Senior Secondary School, Sec 13, RK Puram, New Delhi</td>
<td>15 November 2019</td>
<td>450</td>
</tr>
<tr>
<td>9</td>
<td>Sarvodaya Senior Secondary School, Nanak Pura, New Delhi</td>
<td>28 November 2019</td>
<td>350</td>
</tr>
<tr>
<td>10</td>
<td>Sarvodaya Senior Secondary School, Munirika Village, New Delhi</td>
<td>11 December 2019</td>
<td>500</td>
</tr>
</tbody>
</table>

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Uma Kumar was expert member of task force on metabolic and Autoimmune Disorders-DBT, 19-20 July 2018, Lodhi Road, New Delhi; Chairperson, Monsoon Rheumatology Summit under Kerala Chapter-IRA, 21-22 July 2018, Bolgatty, Cochin; Collaborative work was awarded Best poster award in AYUSH category (overall 4th rank) entitled, “Potential role of yoga in amelioration of disease activity and depression severity in Rheumatoid arthritis: A randomized controlled trial” in 1st National Biomedical Research Competition (NBRCOM-2018) on 15 October 2018 at AIIMS, Rishikesh.

Dr Danveer Bhadu was Quizmaster in DRA Update-2019 (2, 3 February) organized by Department of Rheumatology and Clinical Immunology, Army Hospital (R&R), Delhi Cantt; Chairperson in “Connective Tissue Disorders” session in Delhi Rheumatolgy Update-2019.

Dr Sajal Ajmani was Chairperson in “Spondyloarthritides” session in Delhi Rheumatology Update-2019 on 3 February 2019.

VISITING SCIENTIST

Tsutomu Takeuchi, MD, PhD, Professor of Rheumatology, Keio University School of Medicine, General Director of Keio University Hospital.
HIGHLIGHTS
Our department is involved in Minimal Invasive, Thoracic, Vascular, Renal Transplant, Breast, Endocrine and Gastrointestinal and Bariatric Surgery. We are running Breast Cancer, Bariatric and Renal Transplant Clinics. Apart from this, we have been running Minimal Invasive Training Programme for basic and advanced Laparoscopic surgical skills. Many doctors came for short-term training from India and nearby SAARC countries. Eminent international faculties came to AIIMS and shared their experiences. Our department facilitated in training of trainers for roll-out of National Cancer Screening Programme. We have also developed module for performing Breast Cancer screening.

EDUCATION
1. Postgraduate Seminar on every Wednesday from 5.00 pm to 6.00 pm
2. Journal Club presented by MCh Senior Resident on every Monday from 5 pm to 6 pm
3. Journal Club presented by Junior Resident on every Saturday
4. Mortality and mobility round by Junior Resident once in a week in each unit
5. Lectures, Teaching Schedule in OPD/Ward for MBBS students
6. Internal assessment from time to time conducted for Jr. Residents and MBBS students
7. Lectures for nursing students
8. The following training courses were organized in the Minimally Invasive Surgery Training Centre of the department:
   - Basic and Advanced Laparoscopic Training Course: 16
   - Laparoscopic Hernia Surgery: 8
   - Laparoscopic Suturing: 2

CMEs/Workshops/Symposia/National and International Conferences
2. Hands on Workshop on Abdominal Wall Suturing in association with Delhi State Chapter of Association of Surgeons of India, 24 February 2019, Dry and Wet Lab of the SET Facility, AIIMS, New Delhi
4. Laparoscopic Abdominal Surgery Training for postgraduate and MCh candidates, December 2018, SET Facility, AIIMS, New Delhi
5. Guest lecture on role of Bailey and Love in teaching Indian surgeons by Dr Ronan O’Connell, Ireland, 16 November 2018, Department of Surgical Disciplines, AIIMS, New Delhi
6. “Breast Health Awareness Camp” for AIIMS EHS and AIIMS Non EHS Staff, 30 October 2018, Department of Surgical Disciplines, AIIMS, New Delhi
8. Suturing workshop on Abdominal Wound Closure, 25 August 2018, SET Facility, AIIMS, New Delhi
9. Suturing workshop for undergraduate and postgraduate, 30 April 2018, SET Facility, AIIMS, New Delhi

Lectures delivered

**Anurag Srivastava**

1. Research methodology for the surgeons, AMU Surgery Update 2019, 1-3 March 2019, Department of Surgery, AMU, Aligarh
2. Benign breast diseases: Presentation, ANDI concept and care, PG Clinical Update 2019, 31 January-3 February 2019, Department of Surgery, LHMC, New Delhi
3. Indian contributions to breast surgery, 34th Annual Conference of the ASI, Odisha Chapter and Bharampur Oration OSASICON 2019, 19-20 January 2019, NOCCI Residency, Balasore, Odisha
4. Research methodology for diagnostic test evaluation, Annual Conference of Society for Evidence Based Health Care EBMCON-2019, 2-4 January 2019, Kasturba Medical College and Kasturba Hospital, MAHE, Manipal
7. Skin sparing mastectomy, Panel discussion on breast cancer management in resource constraint environment, Second Asian Society of Mastology ASOMA, 3-5 October 2018, Male, Maldives
9. Diagnostic test evaluation in medicine, Workshop on Research Methodology, 3-5 September 2018, Department of Community Medicine, Gauhati Medical College and Hospital, Bhangagarh, Guwahati
10. Management of benign breast diseases, Midterm Conference ASI Odisha State Chapter and Annual Conference of SELSIOSALSICON, 11-12 August 2018, Odisha
11. Multilevel modelling and longitudinal, repeated measure data analyses, 4-7 June 2018, Department of Biostatistics, CMC, Vellore

**Sunil Chumber**

1. CME in surgery, January-February 2019, Lady Hardinge Medical College, New Delhi
3. Medullary Carcinoma of Thyroid, Surgery Update, September 2018, Maulana Azad Medical College, New Delhi

**Rajinder Parshad**

7. Video assisted thoracoscopic surgery, 58th AMASI Skill Course, 21 October 2018, Lady Hardinge Medical College, New Delhi
8. Laparoscopy vs endoscopic treatment for achalasia cardia, SURGICON 2018, 25 November 2018, Northern Railway Central Hospital, New Delhi
11. Moderator live operative workshop: RGCON 2019, 8 February 2019, Rajiv Gandhi Cancer Institute and Research Centre, New Delhi
12. Surgical management of GERD, AMU Surgery Update-2019, 1 March 2019, Jawaharlal Nehru Medical College, AMU, Aligarh, Uttar Pardesh
13. A master video presentation topic: Laparoscopic management of Achalasia cardia, ENDOLAP @ MAMC, 2 March 2019, Maulana Azad Medical College, New Delhi
14. Difficult situation in fundoplication, Endosurg 2019, 29-31 March 2019, All India Institute of Medical Sciences, New Delhi

Sandeep Aggarwal
1. Bariatric surgery in India—An AIIMS perspective, IMA-Jalandhar CME on Bariatric Surgery, 27 April 2018, Jalandhar
2. Operative demonstration of gastric bypass, International Bariatric Surgery Conference and Live Operative Workshop, 21-22 May 2018, Dayanand Medical College and Hospital, Ludhiana
3. Gastric bypass-operative technique, International College of Surgeons (ICS)-NZCON, 12-13 May 2018, Agra
5. Management of late complications after RYGB, 3rd Fellowship Course in Bariatrics and Metabolic Surgery (FIAGES), 9-11 August 2018, Ahmedabad
6. Bariatric surgery in India faculty for hands on training course, 5th Duke-Pudong Master of Metabolic and Bariatric Surgery Training/Course, 4-5 September 2018, Pudong University, Shanghai, China
7. Moderator for panel discussion on Laparoscopic Sleeve Gastrectomy, IASGCON 2018, 3-6 October 2018, Chandigarh
8. Technical Pitfalls in Bariatric Surgery, IASGCON 2018, 3-6 October 2018, Chandigarh
9. Intraop Pitfalls in Bariatric Surgery: Trouble Shooting, SURGICON, 23-25 November 2018, Northern Railways Hospital, New Delhi
10. Panellist for metabolic surgery debates, International Diabesity and Metabolic Surgery Summit (IDMSS), 28-30 November 2018, Tel Aviv, Israel
11. Panellist for controversies in metabolic surgery, International Diabesity and Metabolic Surgery Summit (IDMSS), 28-30 November 2018, Tel Aviv, Israel
12. Panellist in GERD after Sleeve, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2019, Kolkata
14. Panellist in Do surgeons want to develop a new procedure to get the label of Innovator, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2019, Kolkata
17. Moderator of panel discussion on Bariatric and Metabolic Surgery, Endolap, 1 March 2019, Maulana Azad Medical College, New Delhi

VK Bansal
1. Panel discussion of difficult scenarios in laparoscopic cholecystectomy, 13th AIIMS Surgical Week (ENDOSURG 2019), 27-31 March 2019, AIIMS, New Delhi
2. Renal transplant: An overview for PGs (20 + 10 min), KGMU Surgical Week and Surgical Education Programme and 64th Annual Foundation Day, 11 February 2019, Department of General Surgery, King Georges Medical University, Lucknow


5. “Laparoscopic surgery do’s and don’ts”, SURGICON 2018, 23 November 2018, Northern Railway Hospital, New Delhi

6. Pancreatico gastrostomy, National Conference of Indian Association of Surgical Gastroenterology, 3-5 October 2018, PGIMER, Chandigarh

7. “TEP vs TAPP which is better”, International Hernia Collaboration Conference, 3 May 2018, New Delhi

8. Panel discussion on Bile duct injury different scenarios, 12th AIIMS Surgical Week (ENDOSURG 2018), 19-22 April 2018, AIIMS, New Delhi

9. Live operative demonstration of Laparoscopic CBD exploration, 12th AIIMS Surgical Week (ENDOSURG 2018), 19-22 April 2018, AIIMS, New Delhi

10. Live operative demonstration of Laparoscopic incisional hernia repair, 12th AIIMS Surgical Week (ENDOSURG 2018), 19-22 April 2018, AIIMS, New Delhi

11. Live operative demonstration of Laparoscopic inguinal Hernia, 12th AIIMS Surgical Week (ENDOSURG 2018), 19-22 April 2018, AIIMS, New Delhi


15. Live operative demonstration of Laparoscopic incisional Hernia, South Zone Conference of SELSI 2018, 20-22 July 2018, Kochi, Kerala

Anita Dhar

1. Current concepts in the Management of Chronic Limb Ischemia, Surgery Update 2018, 14 April 2018, Department of Surgery, Jawaharlal Nehru Medical College, AMU, Aligarh


3. Different modalities in treatment of Toxic MNG, ISOPES 2019, 16 February 2019, SGPGI, Lucknow

4. Examiner expert for cases Varicose Veins, Diabetic Foot, Peripheral Vascular Disease, SCOPE-2019, 8 February 2019, PGIMER RML Hospital, New Delhi


6. Role of stem cell in Peripheral arterial disease, Symposium on Exploring the Wonders of Stem Cell Therapy, 2 May 2018, PGIMER and Dr RML Hospital, New Delhi


Hemanga K Bhattacharjee


3. Management of large incisional Hernia, Midterm Conference of Association of Surgeons of India, OSALSICON 2018, Odisha Chapter, 11-12 August 2018, Kolinga, Odisha

7. Laparoscopic appendectomy, Midterm Conference of Association of Surgeons of India, OSALSICON 2018, Odisha Chapter, 11-12 August 2018, Odisha
8. Laparoscopic cholecystectomy, the 12th AIIMS Surgical Week, International Conference, CME cum Live Workshop (ENDOSURG 2018), 19-22 April 2018, AIIMS, New Delhi
9. A conference of Master Video presentations, Endolap-MAMC, 1-3 March 2019, MAMC, New Delhi
10. Annual conference of the Association of Surgeons of India, Delhi State Chapter, 23-25 November 2018, Northern Railway Hospital, New Delhi

Asuri Krishna
2. Laparoscopic CBD exploration, HASICON, February 2019, Nuh, Haryana
3. Panel discussion Laparoscopic CBD exploration, ASI Meet, March 2019, AIIMS, Delhi
5. Sutures in surgery, UG Suturing Workshop, 22 April 2018, AIIMS, New Delhi

Piyush Ranjan
1. Workshop for developing State Action Plan (SAP) for Trauma Care, MOHFW, February 2019, Pune, Maharashtra
2. Road safety legislation and multi-sectoral action, WHO, December 2018, New Delhi
3. Expert meeting on website “India Against Cancer”, December 2018, NICPR, Noida
4. Video demonstration “MRM”, 2 February 2019, LHMC, New Delhi
5. Examination of Extremities, SCOPE, 9 February 2019, RML Hospital, New Delhi
6. Panel discussion on DTC, SURGICON 23 November 2018, Northern Railway Hospital, New Delhi
7. UG and PG Quiz, ENDOSURG-2018 and 2019, April 2018 and March 2019, AIIMS, New Delhi
8. Panel discussion—Benign breast diseases, ABSICON, 28 December 2018, AIIMS, New Delhi
9. Benign breast diseases, ASOMACON, 3 October 2018, Maldives

Mohit Joshi
1. Quiz for post-graduates, Chaired sessions: Free paper; operative workshop, 12th AIIMS Surgical Week (ENDOSURG 2018), 19-22 April 2018, AIIMS, New Delhi
2. Selecting an appropriate journal for publication, Workshop on ‘Submitting manuscript for publication’, 2 May 2018, CMET, AIIMS, New Delhi
3. Responsibilities and conduct in operation theater, Induction Programme for OT Assistants, 12-14 September and 10 October 2018, CMET, AIIMS, New Delhi
4. MCQs—preparation and validation, NATCON 66 (66th National Conference of the Anatomical Society of India), 11 November 2018, AIIMS, Rishikesh
5. Initial assessment and management of trauma patients, Workshop on ‘Basic skills for trauma management’, Oil Medimeet-2019, 2-3 February 2019, Oil India Hospital, Duliajan, Dibrugarh
6. Life-saving trauma care measures during CBRN scenarios, 7th Workshop on Medical Management of CBRN Casualties for Medical Officers, 12 February 2019, DRDO, New Delhi

Yashwant Rathore
1. Video Assisted Thoracoscopic Surgery (VATS) in benign lung conditions, International Uniport VATS Training Programme, 11-22 March 2019, Shanghai Pulmonary Hospital, Shanghai, China
Suhani
1. Why should I write? IJS paper writing workshop, 17 June 2018, Delhi
2. Anatomy and imaging of Pancreas, CME on Pancreas, 9 September 2018, Delhi
3. Laparoscopic cholecystectomy, SCOPE Course, 14 October 2018, Delhi
4. Panelist: PG Case discussion, SCOPE Course, 12-13 October 2018, Delhi
5. Why should I write? SURGICON 2018, 23 November 2018, Delhi
6. Panel discussion: Manuscript writing, SURGICON 2018, 23 November 2018, Delhi
8. Right hemicolectomy, LHMC PG Clinical Update 2019, 2 February 2019, Delhi
10. Why to write? MEDSICON, 9 March 2019, Delhi

Kamal
1. Video presentation Laparoscopic Management of Hydatid Cyst, 12th AIIMS Surgical Week, 22-24 April 2018, AIIMS, New Delhi
2. Triple assessment in breast cancer, 2nd Annual Conference of Asian Society of Mastology, 3-5 October 2018, Male, Maldives
3. Follow up and cosmetic assessment in Breast Cancer, ABSICON 2018 (7th Annual Conference and Workshop), 9-11 November 2018, AIIMS, New Delhi
5. LHMC PG Clinical Update, Clinical Update 2019, 31 January-3 February 2019, Lady Harding Medical College, Delhi
6. Demonstration of examination of Abdomen—Renal Mass, SCOPE 2019, 7-10 February 2019, Ram Manohar Lohiya Hospital, Delhi
7. Diagnosis of Minor Anorectal Conditions, 13th AIIMS Surgical Week, Endosurg, 28-31 March 2019, AIIMS, New Delhi

Om Prakash
1. Periampullary tumor, ENDOSURG, March 2019, AIIMS, New Delhi

Oral papers/posters presented
1. Aggarwal S, Case of stapler misfire and Spiral sleeve converted to Roux-en-Y Gastric bypass, 23rd International Federation for the Surgery of Obesity and Metabolic Disorders World Congress, 26-29 September 2018, Dubai
2. Aggarwal S, Catastrophy averted following Mini Gastric Bypass, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2018, Kolkata
3. Aggarwal S, Concomitant Hiatal hernia repair and laparoscopic Sleeve Gastrectomy results, SURGICON 2018, 23-25 November 2018, Northern Railway Hospital, New Delhi
4. Aggarwal S, Correlation between preoperative Endoscopy and Reflux Symptom Score for GERD in Bariatric patients, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2018, Kolkata
5. Aggarwal S, De-novo GERD and weight regain following Sleeve gastrectomy converted to Roux-en-Y gastric bypass with hiatal hernia repair, IAGES 2019, February 2019, Bhubaneswar, Odhisa (Second Prize in Best Video Presentation Category at Annual Conference of Indian Association of Gastrointestinal and Endoscopic Surgeons (IAGES)
6. Aggarwal S, First case of Adenocarcinoma of Esophagus following Mini Gastric Bypass, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2018, Kolkata
7. Aggarwal S, Impact of Bariatric Surgery induced weight loss on cardiovascular disease risk reduction in morbidly obese patients, SURGICON 2018, 23-25 November 2018, Northern Railway Hospital, New Delhi
9. Aggarwal S, Impact of Bariatric Surgery on NAFLD using 1-year Liver Biopsy, International Disability and metabolic Surgery Summit, November 2018, Tel Aviv, Israel
10. Aggarwal S, Impact of Bariatric Surgery on Type 2 Diabetes Mellitus in morbidly obese patients—Results from a Tertiary Care Teaching Hospital in India, International Diabesity and Metabolic Surgery Summit, November 2018, Tel Aviv, Israel
11. Aggarwal S, Impact of Bariatric Surgery on Type 2 Diabetes Mellitus in morbidly obese patients—Results from a tertiary care teaching hospital in India, AIIMS Research Day, March 2019, AIIMS, New Delhi
13. Aggarwal S, Initial experience with OAGB, International Diabesity and Metabolic Surgery Summit, November 2018, Tel Aviv, Israel
14. Aggarwal S, Mid- to long-term outcomes of Laparoscopic Sleeve Gastrectomy in Indian Population: 3-7 year results—A retrospective cohort study, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2018, Kolkata
15. Aggarwal S, Outcomes in morbidly obese adolescent patients undergoing One Anastomosis Gastric Bypass or laparoscopic sleeve Gastrectomy, 17th National Conference on Obesity and Metabolic Surgery Society of India (OSSICON 2019), 24-26 January 2018, Kolkata
16. Aggarwal S, Outcomes in Super Obese Patients Undergoing One Anastomosis Gastric Bypass or Laparoscopic Sleeve Gastrectomy, SURGICON 2018, 23-25 November 2018, Northern Railway Hospital, New Delhi
17. Aggarwal S, Pitfalls in Bariatric surgery video capsule, IAGES 2019, February 2019, Bhubaneswar, Odhisa
19. Aggarwal S, Surgical management of Super-super obese with grade 3 esophageal varices with chronic liver disease, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2018, Kolkata
20. Aggarwal S, Surgical management of Super-super obese with grade 3 esophageal varices with chronic liver disease, ASI—Delhi State Chapter, 23 February 2018, AIIMS, New Delhi
23. Aggarwal S, Utility of Epworth Sleepiness Scale to Predict OSA in morbidly obese patients an prediction of a better score, 26th International Congress of European Association for Endoscopic Surgery (EAES), 30 May-1 June 2018, London
24. Dhar A, “Breast Health Awareness Camp”, AIIMS EHS and AIIMS Non EHS Staff, 30 October 2018, AIIMS, New Delhi
26. Kataria K, Comparative initial experience of endoscopic thyroidectomies: Transoral extra-vestibular versus axillary-breast approach, ISTS 2018 (Indian Society of Thyroid Surgeon), 24-26 August 2018, Tata Memorial Hospital, Mumbai

32. Oberai A, Suhani, Bhattacharjee HK, Parshad R, Prospective study to evaluate the role of protocol based management of Intercostal Chest Tubes (ICD) in patients undergoing elective thoracic surgery by ASICON 2018, 30 December 2018, Chennai (First prize in the oral presentation in ASICON 2018)


39. Prakash O, 400 cases of pancreaticogastrostomy for reconstruction of pancreatic stump after whipple’s pancreaticoduodeno-ectomy, IASGCON, 2018, 4-7 October 2018, Chandigarh

40. Prakash O, A prospective study assessing the learning curve in complex laparoscopic procedures, ISOT, 2018 First Prize, 5-7 October 2018, Hyderabad

41. Prakash O, A randomized study of patient satisfaction in surgical patients—A quality improvement study, SAGES, 2019 Annual Meeting, 3-6 April 2019, Baltimore, USA


43. Prakash O, A randomized study of patient satisfaction in surgical patients—A quality improvement study, IASGCON, 2018, 4-7 October 2018, Chandigarh


45. Prakash O, A study to assess pancreatic endocrine and exocrine functions in patients with pancreatic trauma, IASGCON, 2018, 4-7 October 2018, Chandigarh

46. Prakash O, An experience of over 1,500 cases of laparoscopic groin hernia surgery at a tertiary care centre, SAGES, 2019 Annual Meeting, 3-6 April 2019, Baltimore, USA

47. Prakash O, Comparison of pure polypropylene mesh vs Covered mesh in laparoscopic incisional and ventral hernia repair: A non randomised cohort study, SAGES, 2019 Annual Meeting, 3-6 April 2019, Baltimore, USA


50. Prakash O, Experience of laparoscopic cystogastrostomy of more than 100 cases at tertiary referral centre, IASGCON, 2018, 4-7 October 2018, Chandigarh

51. Prakash O, Hyper acute rejection of a living related kidney graft, ISOT, 2018, 5-7 October 2018, Hyderabad

52. Prakash O, Improving operative room performance in laparoscopic surgery of surgical residents via short term focused training—A quality improvement study, SAGES, 2019 Annual Meeting, 3-6 April 2019, Baltimore, USA

53. Prakash O, Improving operative room performance in laparoscopic surgery of surgical residents via short term focused training—A quality improvement study, SELSICON 2018 First Prize, 28-30 September 2018, BHU, Varanasi

54. Prakash O, Laparoscopic cystogastrostomy: Experience of more than 100 cases at a tertiary referral centre, SELSICON 2018, 28-30 September 2018, BHU, Varanasi
56. Prakash O, Spontaneous renal allograft rupture of unknown etiology: A case report, ISOT, 2018, 5-7 October 2018, Hyderabad
59. Rathore Y, Pilot study to assess the role of minimal access surgery in treatment of surgical infections, ASICON-2018, 26-30 December, Chennai
60. Srivastava A, Fluorescence guided breast conserving surgery [abstract], San Antonio Breast Cancer Symposium, 4-8 December 2018, San Antonio, TX, USA
61. Srivastava A, Prevention of lymphedema in patients undergoing axillary dissection for breast cancer by benzathine penicillin: A non-inferiority randomised controlled trial, San Antonio Breast Cancer Symposium, 4-8 December 2018, San Antonio, TX, USA
62. Srivastava A, Quality of life and cost-effectiveness in patients undergoing level I versus level II and III axillary lymph node dissection for breast cancer: A double blind randomised controlled trial with non-inferiority hypothesis, San Antonio Breast Cancer Symposium, 4-8 December 2018, San Antonio, TX, USA
63. Suhani, An audit with outcome analysis and clinico-epidemiological trends of breast cancer, ABSICON 2018, 10 November 2018, AIIMS, New Delhi
64. Suhani, Muscle sparing latissimus dorsi flap in breast reconstruction: Our experience, ASICON 2018, 27 December 2018, Chennai

RESEARCH

Funded projects

Ongoing

1. Solid tumor targeting using homing peptides and Plasmonic Photothermal Technique (D-1848), Anurag Srivastava, DBT, 3 years, 2018-2021, Rs 5 lakhs
2. A label extension, single arm multicentric Phase III study to assess the efficacy and safety of approved product Stempeucel® in patients with critical limb ischemia due to Buerger’s Disease, Anita Dhar, Stempeutics Pvt Ltd, 2 years, 2018-2020, Rs 15 lakhs with free supply of stem cells
3. Complete estrogen Blockade in recalcitrant mastalgia: A randomized clinical trial, Suhani, AIIMS, New Delhi, 2 years, 2018-2019, Rs 4.99 lakhs
4. Design, development and validation of ergonomically enhanced surgical instruments, Piyush Ranjan, AIIMS, 2 years, 2018-2019, Rs 4 lakhs

Completed

1. Safety and efficacy of a compression bandage including MOBIDERM® during intensive phase of Lymphedema treatment in BCRL Indian patients: A randomized controlled trial, THUASNE, France, Anita Dhar, 1 year, 2018, Rs 8 lakhs
2. A study of endothelial Nitric Oxide Synthase (eNOS), Nitric Oxide (NO), cytokines, Vascular Endothelial Growth Factor-A (VEGF-A) in lower limb arterial disease and the alteration with the clinical outcome, Anita Dhar, AIIMS, 2 years, 2016-2018, Rs 5 lakhs
3. Centachroman versus Tamoxifen in symptomatic benign breast disease, Randomized clinical trial, Manjunath Maruti Pol, AIIMS, 1 year, 2016, Rs 0.6 lakhs
4. To study the effect of handgrip exercise on the outcome of arteriovenous fistula surgery, A randomized controlled trial, Department, 1 year, 2016, Rs 0.25 lakhs
5. Hydrostatic dilatation plus balloon angioplasty versus hydrostatic dilatation plus malleable vascular dilator for 2 mm or less caliber veins used during creation of arteriovenous fistula for hemodialysis, A randomized controlled trial, Manjunath Maruti Pol, Department, 1 year, 2016, Rs 0.2 lakhs
6. Complete estrogen blockade in recalcitrant mastalgia: A pilot study, AIIMS, Suhani, 2 years, 2016-2018, Rs 2.81 lakhs
Departmental projects

Ongoing

1. A prospective cohort study for decision analysis approach to the management of non-lactational mastitis
2. A prospective randomised trial comparing laparoscopic vs endoscopic drainage for walled off necrosis following acute pancreatitis
3. A prospective randomized control study to compare antral resection versus antral preservation during Laparoscopic Sleeve Gastrectomy for Morbidly Obese
4. A prospective randomized trial comparing laparoscopic vs endoscopic drainage for walled off necrosis following acute pancreatitis
5. A randomized controlled trial to compare Decongestive Compression Therapy (DCT), DCT within BPG and hydrophobic silicone tube placed drainage in lymphedema of upper limb post breast cancer treatment
6. A randomized controlled, parallel group, non inferiority trial to compare identification rate and cost effectiveness of fluorescein plus methylene blue vs technetium sulphur colloid plus methylene blue for detection of sentinel node in ladies with operable breast cancer
7. A study of gut microbiome in patients with gallbladder cancer
8. A study of physiological outcome and correlation with symptomatic outcome following laparoscopic hellercardiomyotomy in primary achalasia cardia
9. A study to validate routine use of CECT scan of torso in patients presenting with dangerous mechanism of injury in Level I Trauma Center
10. A three arm randomized controlled study to compare sexual functions following open mesh hernioplasty, Laparoscopic Totally Extra Peritoneal (TEP) and Trans Abdominal Pre-Peritoneal (TAPP) repair of Groin Hernia
11. A two arm parallel design superiority randomised trial comparing penicillin +standard of care vs standard of care alone in achieving complete healing of leg ulcers in patients with chronic venous hypertension
12. An investigation to identify the etiopathogenesis of fibroadenoma: An ultrastructural and physicochemical study
13. Assessment of post cholecystectomy symptoms and quality of life evaluation: A prospective cohort study
14. Comparison of learning curve on Two-Dimensional (2D) endovision system, Ultra-High Definition (HD) (4K) endovision system and Three-Dimensional (3D) HD endovision system for standardized phantom tasks: An ex-vivo study
15. Comparison of mesotherapy (non operative) with surgery in management of superficial lipomas
16. Comparison of oncologic and functional outcomes in ladies with breast cancer treated with breast conservation compared to those treated with mastectomy: An ambispective study
17. Comparison of oncological and cosmetic outcomes of skin sparing mastectomy versus breast conservative surgery among ladies with early breast cancer: A randomised comparison with superiority hypothesis
18. Comparison of Three-Dimensional (3D) endovision system versus Ultra-High Definition (HD) (4K) endovision system in minimally invasive surgical procedures—An open labeled randomized study
19. Comparison of Two-Dimensional (2D) endovision system, Ultra-High Definition (HD) (4K) endovision system and Three-Dimensional (3D) HD endovision system on standardized phantom tasks: An ex-vivo study
20. Correlation of imaging and operative findings with long term clinical and biochemical outcome in patients with primary hyperparathyroidism
21. Decision analysis approach in management of non lactational mastitis
22. Dosimetric study in children and young adults with differentiated thyroid cancer undergoing Radioiodine (131I- Na) therapy
23. Electrolyte and acid-base disturbances in renal transplant patients—A prospective observational study
24. Epidemiology and analysis of predictors of mortality in trauma patients at a Level I Trauma Center
25. Ergonomic analysis of muscle activity during laparoscopy and influence of training
26. Evaluation of gamma synuclein as a serum bio-marker in breast cancer
27. Evaluation of safety and efficacy of oral Cyclophosphamide, Methotrexate and Capecitabine (CMC) in locally advanced breast cancer patients: A pilot study of 20 cases
28. Extracellular matrix remodelling in obesity induced adipose tissue dysfunctiona and insulin resistance
29. Follow up study to evaluate correlation of imaging and operative findings with clinical and biochemical outcome in patients with primary hyperparathyroidism
30. ICG fluroscence imagine for identifying and assessing the perfusion of parathyroid gland during thyroid surgery
31. Improving pain management following laparoscopic surgery: A randomised quality improvement study
32. Improving pain outcomes following laparoscopic surgery—A quality improvement RCT
33. Incidence of postoperative hypocalcemia after indocyanine green fluorescence guided vs conventional assessment of parathyroid function following total thyroidectomy—A randomised controlled trial
34. Long term outcome of patients with benign breast diseases an ambispective study
35. Mesh fixation with penetrating fixation device versus fibrin sealant during laparoscopic repair of ventral hernia, A double blind randomized control trial
36. Nipple discharge in women; Evaluation and randomized trial comparing limited length ductal cone excision (1.5 cm) with 3 cm ductal cone excision in women presenting with non-bloody nipple discharge
37. Omega Loop Gastric Bypass versus Roux En Y Gastric Bypass for type 2 diabetes mellitus in obese subjects: A randomized controlled trial
38. Oncological outcomes of breast conservation surgery in patients with locally advanced breast cancer post neoadjuvant chemotherapy
39. Optical characterization of breast cancer
40. Outcomes following Minimal Access Thymectomy in patients with Thymoma
41. Pilot study on parathyroid dissection and preservation from thyroidectomy specimen and correlation with postoperative calcium and parathormone levels
42. Pilot study to identify hematological markers in the failure of arterio-venous fistulas for hemodialysis in end stage renal disease
43. Primary versus delayed primary closure of stump in patients undergoing lower limb amputation following trauma: A randomized control study
44. Prospective randomized controlled trial comparing angle of his accentuation vs toupet fundoplication as a anti reflux procedure in patients of achalasia cardia undergoing Hellers Cardiomyotomy
45. Prospective study to evaluate outcomes of protocol-based management of chest tubes in patient undergoing elective thoracic surgery
46. Prosthetic material (Mesh) anchored by mechanical device versus glue during laparoscopic repair of abdominal wall hernia: A double blind randomized control trial
47. RCT comparing stent vs no stent for ureteric anastomosis following LRRT
48. Standardized laparoscopic mesh repair of midline ventral hernia
49. Stent vs no stent in ureteroneocystostomy in live related renal transplant: A prospective randomized controlled trial
50. Study effect of Bariatric Surgery induced weight loss on urinary incontinence
51. Study the impact of Bariatric Surgery induced weight loss on cardiovascular disease risk reduction in morbid obese patients
52. Study the impact of Laparoscopic Mini Gastric Bypass on weight loss and co morbidities in morbidly obese patients undergoing Bariatric Surgery
53. Surgical outcome in geriatric population
54. The effect of 1 cm versus 2 cm resection margin and oncoplastic closure of breast parenchymal defect on oncological and aesthetic outcome in ladies with early breast cancer: A 2x2 factorial randomized controlled trial
55. The feasibility and safety of the subxiphoid video assisted thymectomy for myasthenia gravis: A pilot study
56. Three arm randomised comparison of laparoscopic peritoneal dialysis catheter insertion with or without omentectomy versus conventional open peritoneal dialysis catheter insertion in chronic kidney disease stage 5 patients in terms of catheter malfunction and post-operative complications
57. To define surgical outcome in patients who are converted to minimally invasive surgery to open procedure
58. To develop a protocol for early discharge of patients with non-operative management of liver and splenic injury
59. To evaluate the effect of bariatric surgery on sleep disordered breathing parameters using overnight polysomnography
60. To evaluate the role of age adjusted Charlson comorbidity index scoring in predicting 30 days post operative outcomes in patients undergoing surgery under general and regional anaesthesia
61. To study effect of bariatric surgery induced weight loss on urinary incontinence
62. To study port placement and ergonomics in laparoscopic splenectomy
63. To study the causes of cancellation among patients scheduled for elective operations
64. To study the management, outcome and quality of life in patients with pelvic trauma at a Level I Trauma Center
65. Use of Platelet rich plasma in management of diabetes with PAD
66. Validation of different methods of physical examination for swelling in thyroid region and sonographic corelation— A cross-sectional study
67. Validation of different methods of physical examination of breast and axilla in patients with breast diseases— A cross-sectional study

Collaborative projects

Ongoing

1. A molecular and immunohistochemical study of human colorectal carcinomas to classify them according to the consensus molecular subtypes and to evaluate its prognostic and therapeutic relevance, Pathology
2. A prospective cohort study to measure the effectiveness of NISWANI in achieving regression of Fibroadenoma and Mastalgia, Ministry of AYUSH
3. Development of field-portable multi-modal imaging and spectroscopic system for breast cancer detection and diagnosis in real-time, IIT Delhi
4. Development of labyrinth based mechanical and fast isolation technique for identifying circulating tumour cells of colorectal carcinomas for metastatic evaluation, Pathology
5. Elucidating the link between NUPRI and colorectal cancer stem cells, Biochemistry, Surgical Oncology
6. Isolation, identification and characterization of cancer stem cells from different histopathological grades of colorectal carcinoma, Biochemistry, Physiology, Gastrointestinal Surgery and Pathology
7. Solid tumor targeting using homing peptides and plasmonic photo thermal technique, Bose Institute, IIT Ropar, CSIO Chandigarh
8. To study the role of regulatory T cells in immune suppression in patient with colorectal cancer, Transplant Immunology and Immunogenetics

PUBLICATIONS

Journals: 38    Abstracts: 9    Chapters in Books: 4

PATIENT CARE

The department is providing regular services in multiple fields including multimodality treatment for breast cancer patients, minimally invasive surgery, renal transplantation, Hepatobiliary and pancreatic surgery, thoracic and thoracoscopic surgery, plastic and reconstructive surgery, endocrine surgery, metabolic and bariatric surgery, vascular surgery including surgery for vascular access in end stage renal disease patients and cancer surgery. The department runs the following special clinic besides regular OPD:

- BCC (Breast Cancer Clinic), which includes follow up of old cases, chemotherapy, and registration of new cases
- Follow UP Clinic
- Bariatric Clinic
- Kidney Transplant Clinic
- Chest Clinic

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Anurag Srivastava gave an oration in Odisha Chapter of Associations of Surgeons of India, Research on fluorescence based detection of cancer was highlighted in spotlight discussion in San Antonio, Texas Breast Cancer Symposium, December 2018 and In Editorial of NATURE (Photonics), March 2019; Chairman, Linen Committee of the AIIMS, New Delhi, Store Purchase Committee of C-MET; Member, Statutory Body of Aligarh Muslim University, Staff Selection Committee, Project Review Committee of ICMR, Virtual Teaching Society, European Society of Mastology, EUSOMA, Asian Society of Mastology ASOMA; Life Member, AACR, Association of Surgeons of India, Indian Association of Surgical

Professor Rajinder Parshad: Professor TC Goel Guest Lecture at The Surgical Education Programme, 107th Foundation Day, King George’s Medical University, Lucknow, Uttar Pradesh, 16 February 2019; Central Zone Executive Member of AMASI for the period of 2016-2018; Nominated by Director, AIIMS as Special Invitee in the meeting for Techno-commercial evaluation for different M&E items of Surgical Oncology Department at Dr BRAIRCH for NCI-AIIMS (Jhajjar Campus) held on 24 July and 7 August 2018 at Dr BRAIRCH, AIIMS; Member of Dean’s Committee at All India Institute of Medical Sciences, New Delhi; Departmental Assessment for MCh Course in “Minimal Invasive Surgery” and “Breast and Endocrine Surgery in the department”; MCQs to updated AIIMS Question Bank for Entrance Examination; Departmental Examination of Junior and MCh Residents; Course Director in MIS Training Centre course of department on Operative Laparoscopic-Basic and Advanced course; Paper Setter for MS (Surgery) Exam, May 2018 by Baba Farid University of Health Sciences, Faridkot; External Examiner to evaluate the PhD thesis by University of Delhi; External Examiner to evaluate the MD thesis by PT. BD University of Health Sciences, Rohtak; External Examiner to conduct Final Professor MBBS Practical Exam at Government Medical College, Jammu held from 11 to 14 June 2018; External Examiner to evaluate the MS thesis by Punjab University, Chandigarh; External expert in standing selection committee for post of Assistant Professor by IGIMS, Patna on 26 October 2018; Chair the session, AIIMS PULMOCRIT-2019, 3 March 2019, All India Institute of Medical Sciences, New Delhi.

Professor Sandeep Aggarwal organized the Second National CME on Bariatric Surgery with Hands on Cadaver Course on 22 and 23 February 2019 at AIIMS which focused on postgraduate students to fill the gap in medical curriculum; Expert Member of the Inspection Team for inspection of Renal Transplantation facilities at Dr Ram Manohar Lohia Hospital, New Delhi under the Transplantation of Human Organs and Tissues Act, 1994 in the month of March 2019; Invited by Department of Surgery, Lady Hardinge Medical College, New Delhi to Mentor the Surgeons to Establish Bariatric Surgery Programme, Did Operative Demonstration of two cases including Laparoscopic Sleeve Gastrectomy and Laparoscopic Roux-En-Gastric Bypass on 13 April 2018.

Professor Virinder Kumar Bansal was Visiting Professor, Department of Organ Transplant, University of Michigan, USA, 15-23 October 2018; Appointed as Co-ordinator for starting Renal Transplant at IGMC, Shimla by Himachal Pradesh Government; Course Director, Operative Laparoscopy (5-day course) - 14 courses, Laparoscopic Suturing Skills (3-day course) - 2 courses, Laparoscopic Hernia Surgery (3-day course) - 8 courses, Cadaver Course for General Surgeons (3-day course) - 1 course; Co-Organizing Chairman, 12th AIIMS Surgical Week (ENDOSURG 2018) at AIIMS, New Delhi from 19-22 April 2018, 13th AIIMS Surgical Week (ENDOSURG 2019) at AIIMS, New Delhi from 27 to 31 March 2019.

Professor Anita Dhar: Complete spectrum of peripheral vascular disease management are available covering arterial, venous and lymphatic diseases. Established a vascular lab with facilities for checking ABI, TcPo2, Supervised Exercise therapy on Treadmill, compression bandaging for all venous and lymphatic disease patients. Group and individual teaching for management of the lymphedema viz. a viz skin care irradiation of fungal infection, manual lymphatic drainage and compression bandaging (self learning).

Dr Hemanga K Bhattacharjee received International Surgical Education Scholars Award of the American College of Surgeons (ACS) for year 2017; Awarded the Fellow of American College of Surgeons (FACS) title in American College of Surgeons Clinical Congress, San Diego, USA; Received the Certificate for AIIMS Excellence Research Award 2017 on the occasion of 62nd AIIMS Foundation Day; As a part of the American College of Surgeons International
Surgical Education Scholarship; visited the Department of Surgery, University of Southern California, Los Angeles, USA and the Department of Surgery, UC San Diego Health, San Diego, USA from 1 October to 6 November 2018 as an observer.

Dr Asuri Krishna received ICMR international travelling fellowship for pancreatic transplant to Manchester Royal Infirmary 2018; was Invited Reviewer in SLEPT; Invited Reviewer BJS; Co Editor Indian Journal of Laparoscopic Surgery.

Dr Piyush Ranjan was Awarded Membership: EUSOMA - European Society of Breast Cancer Specialists, ESSO - European Association of Surgical Oncology; First prize, Can Tranexamic acid reduce axillary drainage following axillary dissection for carcinoma Breast-Preliminary report from a tertiary care hospital, Anurag Srivastava, Anita Dhar, Piyush Ranjan, Kamal Kataria, Chitresh Kumar, ASOMACON 2018, Male, Maldives; Third prize, Localisation of chemosensitive Breast cancer with nasogastric tube tip—A novel approach, Vishwa Bharti Gaonkar, Anurag Srivastava, Anita Dhar, Piyush Ranjan, Kamal Kataria, ASOMACON 2018, Male, Maldives; Appointed member of CBSE Curriculum Committee for Health Care; Invited Lectures, Fibroadenomas and Breast Cysts, ASOMACON, Male, Maldives, October 2018; Chairperson for Benign Breast Diseases, ABSICON, AIIMS, Delhi; Organising Secretary, Endsurg, Delhi 2018; AIIMS Breast Course, Delhi, April 2018; UG Quiz, March 2019, Scope; Chairperson, Management of Differentiated Thyroid Cancer, Surgeon; Video Demonstration Modified Radical Mastectomy, LHMC; Judge, Medisicon, Safdarjung Hospital, March 2019; Video Presentation, Scope, February 2019; Letures for Gynaecologist and Medical Officers for Cancer Screening, ECHO, NICPR; Competitive paper, Judge, MEDSICON, 9 March 2019, Vardhman Mahavir Medical College, New Delhi; FACE - First Aid for Common Emergencies for Paramedical and Technical Staff, AIIMS, March and April 2018; Training of Trainers for Kumbhmela Preparedness, Lucknow, December 2018; Training of Paramedics and Doctors for Kumbhmela Preparedness, Prayagraj, December 2019; Cancer Screening Camp, IITF, Pragati Maidan, November 2018.

Dr Mohit Joshi was Coordinator from the Department of Surgery for BSc (OT Technology) course started at AIIMS in August 2018, New Delhi; Chairperson, AIIMS Pulmocrit-2019, 2-3 March 2019, AIIMS, New Delhi, Chairperson, 13th AIIMS Surgical Week and International Conference, CME cum Live Workshop (ENDOSURG 2019), 29 March 2019, 10 November 2018, New Delhi; Judge Poster Session, 10th National Conference on Health Professions Education (NCHPE), 15-17 November 2018, NKP Salve Institute of Medical Sciences, Nagpur; Convener, Translational Health Science and Technology Institute (THSTI), Basic Course Workshop in Medical Education, 6-7 August 2018, Faridabad, Haryana, Basic Course Workshop in Medical and Health Professions Education, 11-13 March 2019, AIIMS, New Delhi; Course Director, Management of Acute Wounds in ED (MAWE), 18 September 2018, JPNATC, AIIMS, New Delhi.

Dr Yashwant Rathore organized suturing workshop for Undergraduate and Postgraduate students on 30 April 2018 and 13 April 2019; Co organizing secretary of 13th AIIMS surgical week (Endosurg 2019) on 28-31 March 2019 and April 2018; Organized Suturing Workshop on Abdominal Wound Closure on 25 August 2018; Organized Breast Awareness Camp at AIIMS Delhi on 30 October 2018; was actively involved in Breast Awareness and Health Camp in Trade Fare, Pragati Maidan, Delhi; Also helped in organizing Bariatric surgery patient support group meeting held on April 2018.

Dr Manjunath Maruti Pol was Joint Organizing Secretary of 13th AIIMS Surgical Week (Endosurg 2019) on 28-31 March 2019; Organized Suturing Workshop on abdominal wound closure on 25 August 2018.

Dr Suhani received award for contribution in surgical education: By Delhi State Chapter, Association of Surgeon’s of India at SURGICON 2018; Invited as working committee member of Indian Journal of Cancer; Developed e-SET modules on core needle biopsy and skin suturing for skill based teaching of medical undergraduates and interns at SET facility; Core member of the content development group at SET Facility; Organized abdominal wall suturing workshop in SET Facility in August 2018 and February 2019 for teaching abdominal wall closure techniques on models in dry and Wet Lab.

Dr Kamal Kataria was Organizing Secretary of 13th AIIMS Surgical Week (Endosurg 2019) on 28-31 March 2019, 2nd National Conference of Indian Society of Clinical Nutrition on 31 August-2 September 2018; Organized Suturing workshop on abdominal wound closure on 25 August 2018.

VISITING SCIENTISTS

1. Dr Ronan O’connell, Editor-in-chief, Bailey and Love, Ireland.
The department is committed to patient care and blood safety and works tirelessly to achieve this aim. The MD Transfusion Medicine was started in 2017 with first student joining in January 2017. Presently we have six students pursuing MD. Sincere efforts have been initiated to boost the voluntary blood donation and the same increased from 38.5% in 2016 to 68.4% in 2017. In the first two months this year it has been 76.7%. Donor education, motivation and recruitment are being strengthened in rural areas which have added to the voluntary donation.

Blood safety is an ongoing effort and we have been successful in starting testing by ECI, which is more sensitive test for screening all collected units using fourth generation tests for HIV and third generation for HCV. For additional layer of safety ID-NAT test is being done on all collected units and from February this year more sensitive and specific test Ulitro Elite has been started. NAT laboratory of Main Blood Bank is the central testing facility for infectious markers for CNC blood bank and JPNATC blood bank.

Testing facility of antibody screening using extended panel has been extended to emergency patients also. Antibody identification in patients having irregular antibodies is now being done regularly as a routine procedure.

Blood bank is supporting ABO incompatible kidney transplants by performing plasmapheresis procedures and antibody titer testing for the patients.

EDUCATION

1. CMET course on “Good Transfusion Practices” for training residents and nursing staff

CMEs, National and International conferences

Lectures delivered

Hem Chandra Pandey

1. Pre-transfusion testing and compatibility issues, “Training of Trainers for Strengthening of Blood Services and e-RaktKosh” for Medical Officers and Technical personnel from blood banks of the states of
   a. Chhattisgarh 18 April 2018
   b. Meghalaya 2 June 2018
   c. Uttar Pradesh 25 July 2018
   d. Jammu and Kashmir 29 August 2018
   e. Chhattisgarh 10 October 2018
   f. Punjab 12 December 2018
   g. Kerala 14 March 2019

2. Quality management system requirements and blood safety standards for blood banks and blood transfusion services in India: Frequently encountered non compliances, Sensitization CME for Blood Banks Conducted by Chhattisgarh SBTC and AIIMS Raipur, 5 June 2018, Raipur

3. Blood donor registries and post-donation follow-up of TTI reactive blood donors, Sensitization CME for blood banks conducted by Chhattisgarh SBTC and AIIMS Raipur, 5 June 2018, Raipur

4. Neonatal transfusion practice (panelist), TRANSMEDCON 2018, 7th Annual National Conference of Indian Society of Transfusion Medicine, 24 November 2018, Kochi

5. ABO blood group discrepancies and their resolution, Advanced Immunohematology Wet Workshop, 1 February 2019, New Delhi


8. Weak D-Clinical significance and approach to identification, CME cum workshop on “Advanced Immunohematology in Transfusion Medicine”, 15 February 2019, New Delhi

Gopal Kumar Patidar

1. Anti-M<sup>+</sup> Antibody in M<sup>N</sup> patient: A rare case report, “International Symposium on blood safety” jointly organized by the Department of Transfusion Medicine and International Society of Blood Transfusion, Amsterdam, The Netherlands, 30 November 2018, Chandigarh
2. Blood group discrepancy: Introduction and resolution, Hands-on workshop in basics in immunohematology, 2 February 2019, Noida

Oral papers/posters presented

1. Akhtar N, Chaurasia R, Arulselvi S, Arya V, Karjee S, Utility of type and screen policy for pre-transfusion testing: Experience at an urban level 1 trauma center in North India, AABB-AATM Congress 2018, 7 December 2018, Delhi
3. Dhiman Y, Patidar GK, Hazarika A, Family history during screening blood donors, do we really give much importance? TRANSMEDCON 2018, 7th Annual Conference of Indian Society of Transfusion Medicine, 23 November 2019, Kochi
5. Patidar GK, Khan AK, Dhiman Y, Singh K, Hazarika A, Red Cell Allo-antibodies in Healthy Blood Donors, TRANSMEDCON 2018, 7th Annual Conference of Indian Society of Transfusion Medicine, 23 November 2019, Kochi

RESEARCH

Funded projects

Ongoing

1. A randomized control trial for evaluation of transfusion related immuno-modulation in patients with meningioma, Gopal Kumar Patidar, AIIMS, 2 years, 2018-2019, Rs 5 lakhs
2. In-vitro assessment of platelets stored in PAS at 22°C and 4°C: A pilot study, Poonam Coshic, AIIMS, 1 year, 2018-2019, Rs 5 lakhs.

Departmental projects

Ongoing

1. Analysis of ABO antibody titre in healthy blood donors
2. Assessment of ABO antibody titre and coagulation factors level after mixing and dilution with normal saline of A and B blood group donor plasma
3. Clinical and serological characterization of autoimmune hemolytic anemia
4. Donor Notification: Improve response rate by new method of registration
5. Estimation of incidence rate of HIV, HBV and HCV in healthy blood donors and their residual risk of transmission after ID, NAT screening
6. Evaluation of Biolog-id solution (a RFID based system) for red blood cell traceability and inventory management, Implementation at Main Blood Bank AIIMS, New Delhi
7. Family history during screening of blood donors: Do we really give much importance?
8. Prospective observation study of transfusion practices in severely injured trauma patients in emergency department at Level 1 Trauma Center
9. Prospective observational study to analyze incidence of different errors in analytical stage of transfusion chain
10. The outcomes of leukoreduced and non-leukoreduced blood component transfusion in patients undergoing cardiac surgery
Collaborative projects

Ongoing
1. Complement factor H (CFH)-related protein 1 (CFHR1) and its role in maintenance of immunological tolerance, Regional Center for Biotechnology, Faridabad
2. To study the clinical and neurophysiological outcomes after using platelet rich plasma in acute peripheral nerve injury repair, Plastic Surgery, JPNATC, AIIMS

PUBLICATIONS
Journal: 1

PATIENT CARE

(a) Facilities available in the department (including special clinics and/or special laboratory facilities:
- Autologous blood donation
- Autologous platelet donation
- Voluntary blood donation camp facility
- Apheresis procedures (SDP, TPE, PBSC)
- Irregular antibody identification
- Antibody screening
- Antibody titers
- Automated blood grouping and serology
- Automated infectious markers testing
- ID-NAT testing of all donated units of three blood banks of AIIMS
- 100% blood component preparation
- Leucodepleted blood/components
- Irradiation facility

(b) Community services/camps etc:
- Main blood bank organized total 86 voluntary donation camps in Delhi NCR and collected over 6,300 units
- Carrying out motivational and educative programme for donors in rural areas in association with CHC Ballabgarh
- Main blood bank is to become mother blood bank for storage centre of CHC Ballabgarh, in process

9.41. Transplant Immunology and Immunogenetics

<table>
<thead>
<tr>
<th>Professor and Head</th>
<th>DK Mitra</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant Professors</td>
<td>Rakesh Kumar Deepak</td>
</tr>
<tr>
<td>Uma Kanga</td>
<td></td>
</tr>
<tr>
<td>Sunil Kumar</td>
<td>Lata Kumari</td>
</tr>
<tr>
<td>Sanjeev Goswami</td>
<td>Gaurav Sharma</td>
</tr>
<tr>
<td></td>
<td>Sonia Verma</td>
</tr>
</tbody>
</table>

EDUCATION

During the year 2018-2019, our department trained 20 students/doctors from various hospitals and institutions from India and abroad. These candidates received training on laboratory techniques in Transplant Immunology, Immunogenetics-HLA testing, post transplant monitoring and other immunological investigations for immune deficiency.

Short-term training-AIIMS (1-2 weeks): The department provided short term training to the Junior residents from Pathology (3), Laboratory Medicine (3) and Senior Residents (DM Students) of Nephrology (1), Hematology (6), Biochemistry (3), Medical Oncology (3) from AIIMS.

Continuing Medical Education (CME)

During the year, the faculty and scientists of the department participated and delivered several lectures in National and International conferences. Our department regularly provides training on various cell culture assays, including flowcytom-
etry based assays to students and visiting trainees our department coordinates a national level Quality Control exercise for DNA based typing of HLA genes for assessment of quality of testing by other HLA laboratories in India. The faculty also delivered special lectures in Departments of Biotechnology and Pathology, AIIMS as part of the academic curriculum of these departments. Faculty/Scientists delivered lectures to MD/DM residents from Paediatrics, Hematology, Anatomy, Nephrology, Biochemistry, Medical Oncology, Pathology and Laboratory Medicine. Several lectures on Transplant Immunology were also delivered to nursing students of the institute.

Lectures delivered

**DK Mitra**

1. Host immune response profile in TB patients and its impact on efflux pump of M. tuberculosis, Newton Bhabha Fund Researcher Links Workshop—School of Natural Product Studies, 4-7 September 2018, Jabalpur University, Kolkata
2. Host immune response profile and impact of blocking PD-1 pathway on protective immune response in tuberculosis patients, 4th International Conference on Translational Research: Recent Developments and Innovations in Human Health and Agricultural Research, 11-13 October 2018, Goa
4. T regulatory cells in infections, Hospital Planning and Beyond Symposium, 28 January 2019, IIT, Kharagpur
5. Host T cell response of Visceral Leishmaniasis patients, CME on “Recent trends in the field of Transplant Immunology and Immunogenetics”, 8-9 February 2019, IGIMS, Patna

**Uma Kanga**

1. How to choose a best donor in a haplo-identical transplant, National Hematology Update X1, 14-15 April 2018, New Delhi
3. Post-transplant DSA Monitoring, Indian Association of Nephrology Conference, 18-19 August 2018, Pune
4. Immunology of rejection for the Nephrologists, Indian Society for Organ Transplantation, 5-7 October 2018, Hyderabad
5. ImmunomodulatorsImpacting transplantation outcome: HLA-G, Treg frequency, Cytokine imbalance, 45th Annual Meeting of Indian Immunology Society, 1-3 November 2018, Faridabad
6. Non-classical HLA genes as Immunomodulatory Molecules: Role in transplantation, 5th conference of Indian Society for Histocompatibility and Immunogenetics, 2-4 November 2018, Mumbai
7. HLA system in Health and Disease, Immunology Seminars, 7 January 2019, Noida
8. Characterizing Immune Alloreactivity in Renal Transplantation, West Zone Transplant Conclave 2019, 3 February 2019, Mumbai
9. Role of CDC and DSA in Renal Transplantation, Update on Immunology and Infection in Renal Transplant, 16 February 2019, Nadiad, Gujarat
10. Role of HLA-G exon 8 Polymorphism in conferring genetic susceptibility to TID among North Indians, 32nd European Immunogenetics and Histocompatibility Conference, 9-12 May 2018, Venice, Italy
11. The clinical relevance HLA and non-classical HLA genes in transplantation, Federation of Clinical Immunology Societies—FOCIS 2018
13. HLA-A*02 repertoire in three defined population groups from North and Central India Panjabi Khatries, Kashmiri Brahmins and Sahariya Tribe, 44th Annual Meeting of American Society for Histocompatibility and Immunogenetics, 1-5 October 2018, Baltimore, USA
14. Immunomodulatory factors influencing graft versus host disease manifestation: HLA-G expression, Treg cell frequency and Th1-Th2 cytokines, Asia Pacific Histocompatibility and Immunogenetics Conference 2018, 10-14 November 2018, Sydney, Australia
Gaurav Sharma

2. Engraftment kinetics of donor type chimerism in lineage specific cell population post HSCT, ISHICON-2018, 3-4 November 2018, TMH, Mumbai

RESEARCH

Funded projects

Ongoing

1. Impact of host T cell response on expression and function of drug efflux pumps: Relevance to drug resistant TB, DK Mitra, ICMR, 3.5 years, 2014-2018, Rs 78.5 lakhs
2. Multivalent Leishmania Vaccine Development, DK Mitra, BIRAC DBT, 3 years, 2015-2018, Rs 397.57 lakhs
3. Functionalization and validation of a cloud based Integrated Medical Device (IMD): Delivery of specialized diagnostic, therapeutic and follow up care to the remote underserved population, DK Mitra, Azure Software Pvt Ltd, 3 years, 2017-2020, Rs 16.44 lakhs
4. Development of a Remote Healthcare Delivery System: Early Diagnosis, Therapy, follow-up and Preventive Care for NCDs (Cardio-Pulmonary), DK Mitra, IMPRINT (HRD+ ICMR), 1 year, 2017-2018, Rs 64.85 lakhs
5. NKT cell subsets: Impact on Mycobacterium tuberculosis specific effectors T cell responses, DK Mitra, ICMR, 3 years, 2017-2020, Rs 70.26 lakhs
6. In Silico Trial for Tuberculosis Vaccine Development (STriTuVaD) European Commission Horizon 2020, DK Mitra, DBT, 5 years, 2018-2023, Rs 500 lakhs
7. Genome wide transcription analyses in DR Mtb: Identification and Immunomodulation of novel targets, DK Mitra, DBT, 3 years, 2018-2021, Rs 148 lakhs
8. Studies to delineate the Immunoregulatory role of PD-L1/PD-1 pathway and exploring it as a potential tool for vaccination strategies against Visceral Leishmaniasis, DK Mitra, DST, 3 years, 2018-2021, Rs 70 lakhs
9. NKT cell subsets: Impact on Mycobacterium tuberculosis specific effectors T cell responses, DK Mitra, DBT, 3 years, 2018-2021, Rs 70 lakhs
10. Killer Immunoglobulin Receptor-Human Leukocyte Antigen (KIR-HLA) interactions: Significance in Hematopoietic Stem Cell Transplantation, Uma Kanga, AIIMS, 2 years, 2017-2019, Rs 4.0 lakhs
11. Genomic analysis of HLA and non HLA genes and humoral profile of Type 1 Diabetes Mellitus in the population of North East India, Uma Kanga, DBT (BCIL), 3 years, 2017-2020, Rs 127.8 lakhs
12. Influence of HLA and KIR genes on Chikungunya infection in North Indian population, Gaurav Sharma, AIIMS, New Delhi, 2 years, 2017-2019, Rs 4 lakhs

Completed

1. Centre for Excellence in Molecular Medicine—Advance programme in Basic and Applied Immunogenetics, Uma Kanga, ICMR, 6 years, 2012-2018, Rs 218 lakhs
2. Inphase polymorphism analysis of the HLA minigenome and its application of Next Generation Sequencing (Japanese Society for Promotion of Science), Uma Kanga, DST-JSPS Indo-Japanese, 2 years, 2016-2018, Rs 6.8 lakhs

Departmental projects

Ongoing

1. Chronic Atherosclerosis Disease: Integrated analysis of stage-specific alterations in gene expression and miRNA profile of atherosclerotic plaques and correlation with plasma-derived extracellular vesicles in circulation
2. Clinical relevance of non-classical HLA, MICA and NKG2 receptors in HSCT
3. Development of cost effective inhouse assays for HLA diagnostic services
4. Establishment of heterogeneity in genetic markers: Potential use in transplant monitoring
5. Genomic diversity of HLA genes in Kashmiri population—Advantage of NGS technology
6. Identification of microRNA signature linked to AA and response to immunosuppressive therapy
7. Identification of signatures for predicting rejection in Renal Transplantation
8. Immune reconstitution following haematopoietic stem cell transplantation
9. Impact of checkpoint inhibitors on suppressed state of immunity in tuberculosis
10. NKT cells in Tuberculosis: Impact on Protective T cell response
11. Phenotypic and functional characterization of various T cell subsets in sarcoidosis

Collaborative projects
1. Evaluation of novel forensic exhibits and informativity of Y-STR markers in chimerism situation, Forensic Medicine
2. Genomic analysis of HLA and Non-HLA genes and humoral profile of Type 1 Diabetes Mellitus in the population of North East India, Anatomy, Tezpur Medical College
3. Genetic propensity to nasopharyngeal carcinoma in Nagas from North East India, Naga Hospital and Authority, Nagaland
4. Potential role of HLA-G mediated immunomodulation by tissue specific human Mesenchymal Stem Cell (hMSCs), Stem Cell Facility

PUBLICATIONS
Journals: 3 Abstracts: 1 Chapter in Book: 1

PATIENT CARE
Renal Transplantation

<table>
<thead>
<tr>
<th></th>
<th>Recipients</th>
<th>Donors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live Related</td>
<td>511</td>
<td>477</td>
<td>988</td>
</tr>
<tr>
<td>Cadaver Transplantation (Kidney)</td>
<td>97</td>
<td>7</td>
<td>104</td>
</tr>
<tr>
<td>Cross Match Test-CDC (Serology)</td>
<td>1,286</td>
<td></td>
<td></td>
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<tr>
<td>Cross Match Test (Flowcytometry)</td>
<td>392</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luminex PRA</td>
<td>412</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luminex (DSA monitoring)</td>
<td>271</td>
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</table>

Bone Marrow/Hematopoietic Stem Cell Transplantation (Haematology, AIIMS)

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Recipients</th>
<th>Donor</th>
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<tbody>
<tr>
<td>Aplastic anaemia</td>
<td>175</td>
<td>489</td>
<td>664</td>
</tr>
<tr>
<td>Acute leukaemia (AML+ALL)</td>
<td>74</td>
<td>198</td>
<td>272</td>
</tr>
<tr>
<td>Thalassaemia</td>
<td>50</td>
<td>126</td>
<td>176</td>
</tr>
<tr>
<td>Chronic leukaemia</td>
<td>31</td>
<td>87</td>
<td>118</td>
</tr>
<tr>
<td>Others</td>
<td>99</td>
<td>279</td>
<td>378</td>
</tr>
<tr>
<td>Total</td>
<td>429</td>
<td>1,179</td>
<td>1,608</td>
</tr>
</tbody>
</table>

S. No. Diagnosis                                                                 No. of Tests Done
A     Low Resolution HLA Typing               No. of Tests Done
(PCR-SSP or PCR-SSO Luminex based)                            1,608
1     HLA-A locus                             1,608
2     HLA-B locus                             1,608
3     HLA-DRB1 locus                          605
4     HLA-DRB3/4/5 loci                       125
B High Resolution HLA Typing                 No. of Tests Done
(Sequence Based Typing/ PCR-SSO Luminex)                   90
5     HLA-A locus                             90
6     HLA-B locus                             90
### II. Disease Association HLA Screening tests

<table>
<thead>
<tr>
<th>Diseases</th>
<th>HLA test</th>
<th>No of Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 Ankylosing Spondylitis and other Spondyloarthropathies</td>
<td>HLA-B-27</td>
<td>516</td>
</tr>
<tr>
<td>17 Coeliac Disease</td>
<td>HLA-DQA1/DQB1</td>
<td>34</td>
</tr>
<tr>
<td>18 Narcolepsy/Cataplexy</td>
<td>HLA-DQB1</td>
<td>10</td>
</tr>
<tr>
<td>19 Behcets’ Disease</td>
<td>HL-B*51</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>584</strong></td>
</tr>
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</table>

### PRIMARY IMMUNODIAGNOSTICS

Free of cost service provided for Primary and Secondary Immunodeficiency Diseases

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Diagnosis</th>
<th>Markers/Assays</th>
<th>No. of Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>T Cell Frequency</td>
<td>CD3, CD4, CD8</td>
<td>599</td>
<td></td>
</tr>
<tr>
<td>B Cell Frequency</td>
<td>CD19, 20</td>
<td>681</td>
<td></td>
</tr>
<tr>
<td>NK Cell Frequency</td>
<td>CD3, CD56, CD16</td>
<td>383</td>
<td></td>
</tr>
<tr>
<td>NK Cell Activity (HLH)</td>
<td>CD3, CD56, Perforin</td>
<td>242</td>
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<tr>
<td>ALPS</td>
<td>CD3, CD4, CD8, TCRαβ</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Leukocytes Adhesion Deficiency</td>
<td>CD11a,b and CD18</td>
<td>232</td>
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</tr>
<tr>
<td>Chronic Granulomatous Disease</td>
<td>DCFDA/DHR</td>
<td>653</td>
<td></td>
</tr>
<tr>
<td>Hyper IgM</td>
<td>CD3, CD69, CD154 (CD40L)</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>T cell function (IFN-gamma)</td>
<td>CD3, CD8, IFN-gamma</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>Class Switch Memory</td>
<td>CD19+/CD27+/IgD-</td>
<td>48</td>
<td></td>
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<tr>
<td>Degranulation Assay</td>
<td>CD3+/CD56dim/CD107a+</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>IL-12 Assay</td>
<td>CD14+/IL-12+</td>
<td>22</td>
<td></td>
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<tr>
<td>IL-17 Assay</td>
<td>CD3+/IL-17+</td>
<td>4</td>
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</tr>
<tr>
<td>MSMD</td>
<td>CD14+/IFNγR1+/IFNγR2+</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>3,035</strong></td>
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</table>
BONE MARROW TRANSPLANTATION, IRCH, AIIMS

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Recipients</th>
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<tbody>
<tr>
<td>AML</td>
<td>91</td>
</tr>
<tr>
<td>CML</td>
<td>25</td>
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<tr>
<td>ALL</td>
<td>57</td>
</tr>
<tr>
<td>Others</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
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<table>
<thead>
<tr>
<th>Donors</th>
<th>344</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Diagnosis</th>
<th>Tests done</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Resolution HLA Typing (PCR-SSP)</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>HLA-A locus</td>
<td>604</td>
</tr>
<tr>
<td>2.</td>
<td>HLA-B locus</td>
<td>619</td>
</tr>
<tr>
<td>3.</td>
<td>HLA-DRB1 locus</td>
<td>119</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,342</td>
</tr>
</tbody>
</table>

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Uma Kanga was elected as Asia Pacific Region Councillor of the Asia Pacific Histocompatibility and Immunogenetics Association (APHA) (2018 onwards); was elected as Treasurer of Indian Immunology Society (IIS) for 2-year term (2018-2020).

9.42. Urology

Professors and Head
PN Dogra (up to 30 November 2018) Amlesh Seth (1 December 2018)

Professor
Rajeev Kumar

Associate Professor
Prabhjot Singh

Assistant Professors
Rishi Nayyar Brusabhanu Nayak
Sanjay Kumar Siddharth Jain
Manoj Kumar

HIGHLIGHTS

1. Transplant was started in Urology OT with the help of General Surgery Department
2. Dual console da Vinci Xi surgical robot was commissioned in the Urology OT replacing the older version of the robot
3. The 3rd Sarinder Man Singh Memorial Oration in Urology was delivered by Dr Mahender Bhandari, former faculty at the Department of Urology, AIIMS on 26 April 2018
The faculty of the department participated in and delivered lectures in continuing medical education programmes, symposia, national and international conferences during the year.

The department imparted lectures for the undergraduates and nursing students (BSc and MSc). The department trains 11 postgraduates for the degree of MCh in Urology over a 3-year period. Post-MCh Fellowship training is available for sub-specialities including minimally invasive urology, uro-oncology, reconstructive urology and urogynecology.

Efforts are being made to start the renal transplant programme under the department with help from the Departments of Surgical Disciplines and Nephrology. The aim is to include renal transplant which is an essential part of urology training into regular curriculum for residents. 15 cases of live donor kidney transplant have been done in Urology OT by Dr Sandeep Aggarwal and his team in association with Urology team to facilitate transfer of surgical skills (Courtesy: Director, Dr Randeep Guleria; HOD Surgery, Dr Anurag Srivastava; HOD Nephrology, Dr Sanjay Aggarwal).

The faculties of the department are examiners for NBE and MCh. Urology in various universities and inspector for the Medical Council of India and National Board for recognition of standard of teaching and training and facilities for Urology postgraduate courses. The faculty of the department took active part in restructuring and reframing the curriculum for MCh and DNB training courses in Urology of other upcoming institutes.

Faculties of the department (Dr Prabhjot, Dr Rishi, Dr Brusabhanu) have actively taken part in development of various modules of skill sets for students, which is a step forward towards e-learning. Faculty also took lectures for the SET Facility towards their faculty development programme. Training of interns and MBBS students for urethral catheterization: Male and female on mannequin pelvis was done in the SET Facility on trial basis and shall soon be incorporated into their regular curriculum. Skill Simulators (URO/PERC MENTOR) Training was formally inducted in the regular curriculum of residents (Dr Sanjay).

Commissioning of dual console da Vinci Xi surgical robot in Urology OT in May 2018 by Director, AIIMS.

EDUCATION

The faculty of the department participated in and delivered lectures in continuing medical education programmes, symposia, national and international conferences during the year.

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Lectures delivered

PN Dogra
2. Demonstrated: Preperitoneal Robotic assisted radical prostatectomy, Conference at Kokilaben Dhirubhai Ambani Hospital, 14 October 2018, Mumbai
3. Meet the professor sessions, NZUSICON 2018, 16-18 November 2018, Ludhiana

Amlesh Seth
1. Panelist: Rapid fire round on complications in Urological Surgery, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea
2. AIIMS experience of Sigmoid Neo-bladder Reconstruction, NZUSICON 2018, 16-18 November 2018, Ludhiana
3. Convener and chaired: BOE Course 2—How to proceed if the PSA is 4-11? USICON 2019, 23-26 January 2019, Bhubaneswar
4. Role of imaging including mpMRI and TRUS-Fusion biopsy and role of Urine based molecular markers, USICON 2019, 23-26 January 2019, Bhubaneswar

Rajeev Kumar
1. The MCI's attempted solution: Challenges, NMJI and IAMJE meeting on publishing, 7-8 April 2018, New Delhi
2. Components of a peer review, NMJI and IAMJE meeting on publishing, 7-8 April 2018, New Delhi
3. Scientific question and study design, NMJI and IAMJE meeting on publishing, 7-8 April 2018, New Delhi
4. Significance, p values, and other jargon, UAA Congress, 17-22 April 2018, Kyoto, Japan
5. mpMRI biopsies—Cognitive, fusion and in-bore, UAA Congress, 17-22 April 2018, Kyoto, Japan
6. Genitourinary tuberculosis, UAA Congress, 17-22 April 2018, Kyoto, Japan
7. Moderator—Poster session-Adrenal, AUA Annual Meeting, 18-21 May 2018, San Francisco, USA
9. Pseudo journals and predatory practices-avoiding the minefield, Taiwan Urological Association Annual Meeting, 17-19 August 2018, Taipei, Taiwan
10. Why do my papers get rejected, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea
11. Pregnancy data on varicocele surgery, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea
12. Laparoscopic and robotic adrenalectomy, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea
13. Residency issues: Faculty perspective, NZUSICON 2018, 16-18 November 2018, Ludhiana
15. Converting a thesis into a paper, NZUSICON 2018, 16-18 November 2018, Ludhiana
16. Asian Urology-a SWOT analysis, KUA Annual Meeting, 28-30 November 2018, Seoul, South Korea
18. Writing an abstract, USICON 2019, 23-26 January 2019, Bhubaneswar
19. Chairing a session and presentation skills, USICON 2019, 23-26 January 2019, Bhubaneswar
20. Lap adrenal complications, USICON 2019, 23-26 January 2019, Bhubaneswar
22. Moderator—Live surgery, Pelvic Health Update, 8-9 March 2019, Chandigarh
23. Varicoceles-case discussions, EUA Annual Meeting, 15-19 March 2019, Barcelona, Spain
Prabhjot Singh
1. Panelist in “Prostate Cancer”, “Swasth Bharat” Programme, 13 July 2018, New Delhi
3. Role of PCA3, PHI, 4K score, ConfirmMDx before biopsy, Update on management of Prostate Cancer, 8 September 2018, Gurgaon
4. Role of Cytoreductive radical prostatectomy/Radiotherapy in metastatic Prostate Cancer, Update on management of Prostate Cancer, 8 September 2018, Gurgaon
5. Environmental factors affecting male reproductive system, National Conference on Awareness of Changes in Lifestyle Influencing Adolescent Health, 15 September 2018, Pilani
6. Prostate Cancer: Prevention, Screening, Diagnosis and Treatment, Cancer Control and Prevention for North Eastern Region (NER), 15 September 2018, New Delhi
8. How to prepare SOPs, Content Development Workshop, SET Facility, AIIMS, 28 September 2018, New Delhi

Rishi Nayyar
1. Moderator: Male perineal surgeries, Global Perineocon 2018, 6-8 April 2018, New Delhi
2. Training of urology residents on a hands on simulation model of Bipolar TURP, UROMET Programme under Board of Education, USI, 12-14 April 2018, Gurgaon
3. PCNL: How I do it, Workshop on PCNL, CUE NZUSI, 5 May 2018, New Delhi
5. Role of biomarkers in Prostate Cancer decision making, Update in Management of Cancer Prostate, 8 September 2018, Gurgaon
6. Training of urology residents on a hands on simulation model of Bipolar TURP, UROMET Programme under Board of Education, USI, 7-8 September 2018, Gurgaon
7. Basic 2D graphics and animations for skill modules, Content Development Workshop, SET Facility, AIIMS, 9 November 2018, New Delhi
10. Complications and management of Burch Colposuspension, Pre-congress workshop of AOGD on Pelvic Reconstructive Surgery, 23 November 2018, Gurgaon
11. Uterovesical/Urethrovaginal Fistula, Pre-Congress workshop of AOGD on Pelvic Reconstructive Surgery, 23 November 2018, Gurgaon
13. Training of urology residents on a hands on simulation model of Bipolar TURP, UROMET Programme under Board of Education, USI, 15-16 December 2018, Gurgaon
14. Female PFUDD: 5 cases, 5 modes of management, DUSCON 2018, 25 December 2018, New Delhi
17. Gadgets and Gizmos for pelvic floor rehabilitation, First update on pelvic health, 8-9 March 2019, Chandigarh

Brusabhanu Nayak
1. Adjuvant therapy in non-metastatic RCC: Whom and when, Master class in Uro-oncology with live operative International minimally invasive surgery workshop 2018, 18-19 August 2018, New Delhi

**Manoj Kumar**

1. Comforting life with urinary diversion, Nursing and Healthcare Innovation: Sharing the learning, 14 March 2019, New Delhi

**Oral papers/posters presented**

1. Bansal D, Nayak B, Singh P, Nayyar R, Seth A, Ramachandran R, Randomized controlled trial to compare the length of stay, preoperative outcomes and complications in patients undergoing radical cystectomy with and without ERAS protocol in a tertiary care center in India, NZUSICON, 16-18 November 2018, Ludhiana

2. Bansal D, Nayyar R, Singh P, Jain S, Individualized management of obliteratorive urethral stricture in females—Five patients, five management strategies, USICON, 23-26 January 2019, Bhubaneswar


7. Nayak B, Bansal D, Singh P, Seth A, Nayyar R, Ramachandran R, Randomized controlled trial to compare the length of stay, Perioperative outcomes and complications in patients undergoing radical cystectomy with and without the enhanced recovery after surgery (ERAS) protocol in a tertiary care centre in India, EAU Congress 2019, 15-19 March 2019, Barcelona, Spain


11. Nayyar R, Female PFUDD: 5 cases, 5 modes of management, DUSCON, 25 December 2018, New Delhi


13. Saini S, Nayyar R, Sharma A, Dogra P, Jeopardizing the oncological safety: Trans-urethral resection of bladder tumor may induce measurable hematogenous seeding of cancer cells, NCCN Annual Conference, 21-22 March 2019, Orlando, USA

14. Seth A, A potential therapy of non-muscle invasive Urothelial Bladder Cancer using localized photothermal ablation and chemotherapy, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea

15. Seth A, Budd-Chiari Syndrome with adequate hepatic reserve is no contraindication for radical nephrectomy plus cavoatrial thrombectomy, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea

16. Seth A, Single centre experience on use of De-Epithelization for second stage closure for proximal hypospadias—A novel technique, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea

17. Singh P, Kumar R, Nayak B, Sharma A, Prevalence of HPV16 and HPV18 subtypes in Penile Cancer patients of Indian origin and their association with htert promoter methylation and telomerase activity, 38th Congress of SIU, 4-7 October 2018, Seoul, South Korea

18. Singh P, Srivastava N, Nayak B, Garg B, Spectrum of clinical and urodynamic findings in patients of spinal tuberculosis with lower urinary tract symptoms, before and after spinal surgical intervention, 38th Congress of SIU, 4-7 October 2018, Seoul, South Korea

**Awards won:**

[1] Best moderated poster at NZUSICON 2018

[2] Best moderated poster at NZUSICON 2018
RESEARCH

Funded projects

**Ongoing**
1. A multicenter, prospective, longitudinal registry of patients with Prostate Cancer in Asia, Amlesh Seth/Prabhjot Singh, Jansen Incorporated, 3 years, 2016-2019, Rs 14,00,000
2. Human papillomavirus status in penile carcinoma in Indian patients: Incidence, type distribution and correlation with Clinicopathological staging, Prabhjot Singh, AIIMS, 3 years, 2016-2019, Rs 9,50,000
3. Clinical value of patient-specific three-dimensional printing of kidney before partial nephrectomy: Quantitative and qualitative assessments, Rishi Nayyar, AIIMS, 1 year, 2018-2019, Rs 5,00,000
4. The prognostic role of Circulating Tumor Cells (CTC) and CXCR1 expression in tumor tissue in patients with metastatic clear cell RCC: A prospective observational longitudinal cohort study, Brusabhanu Nayak, AIIMS, 2 years, 2018-2020, Rs 8,50,000
5. Identification of Glucose Related Protein 78 (GRP78) as a biomarker for tumor behavior in patients of Renal Cell Carcinoma (RCC), Manoj Kumar, AIIMS, 2 years, 2017-2019, Rs 5,00,000

**Completed**
1. Application of Nanotechnology for combined Chemo and Photo-thermal therapy for Non-Muscle Invasive Urinary Bladder Cancer, Amlesh Seth, DBT, 3 years, 2015-2018, Rs 90 lakhs
2. Male infertility: Demographics, etiology and outcomes of standard clinical practice, Rajeev Kumar, ICMR, 3 years, 2015-2018, Rs 11.66 lakhs
3. Role of circulating tumor cells in patients undergoing TURBT for Bladder Cancer: Effect on tumor cells dissemination and its correlation with histopathology, Rishi Nayyar, AIIMS, 2 years, 2016-2018, Rs 9 lakhs
4. Study of miRNA 182 and miRNA 187 as potential biomarkers in Prostate Cancer patients and its correlation with serum PSA, Gleason score and Prostate Cancer staging, Brusabhanu Nayak, AIIMS, 2 years, 2015-2017, Rs 4,80,000

Departmental projects

**Ongoing**
1. Clinicopathological profile of renal tumors in pediatric, adolescent and young adult population
2. Cold cup versus loop biopsy for restaging of cancer bladder during TURBT
3. Comparison of electrocautery versus ultrasonic shears in laparoscopic nephrectomy
4. Does intra-urethral flora have a role in post-procedural incidence of urinary tract infection in healthy males undergoing endourological procedure—A clinical study
5. Evaluation of seminal biomarkers for the diagnosis of obstruction as the cause of azoospermia in infertile men
6. Long term oncological and functional outcomes following post radical prostatectomy patients in CA Prostate patients
7. Long-term outcomes of RARP
8. Radiological anthropometric assessment of various bolster positions for PCNL
9. Randomized controlled trial to compare standard Mitomycin, HIVEC and BCG for intermediate risk Bladder Cancer
10. Role of mp MRI using VIRAD (Version 1) in predicting the stage and grade of disease in carcinoma urinary bladder
11. Unilateral versus bilateral vasoepididymal anastomosis: Prospective randomized trial

**Completed**
1. Randomized controlled trial to compare the length of stay, Preoperative outcomes and complications in patients undergoing radical cystectomy with and without ERAS protocol in a tertiary care center in India
Collaborative projects

Ongoing

1. A prospective randomized control trial to compare the efficacy of darifenacine versus mirabegron for treatment of overactive bladder, Obstetrics and Gynaecology
2. Clinico-microbiological profile and outcome of patients with Urosepsis, Microbiology
3. Comparison of 18f-fluoromethylcholine and 68ga-PSMA PET/CT in restaging of patients with adenocarcinoma prostate, Nuclear Medicine
4. Comparison of 68Ga-PSMA PET/CT and 18F-NaF PET/CT for detection of bone metastases in high risk Prostate Cancer patients, Nuclear Medicine
5. Comparison of urodynamic study and vaginal pessary test to unmask occult SUI in patients undergoing vaginal surgery for uterine prolapse, Obstetrics and Gynaecology
7. Hemodynamic profile in the perioperative period in patients undergoing Pheochromocytoma and paraganglioma surgery with and without low dose diltiazem infusion, Anaesthesia
8. In-vitro urinary and serum NMR based metabolomics in Prostate Cancer, NMR
9. Molecular profiling and phenotype-genotype correlation of patients with Pheochromocytoma/Paraganglioma: Deciphering implications in management and prognostication, Pathology
11. Role of Gene Xpert urine in GUTB patients, Medicine
12. Role of In-bore MR guided Biopsy in detection of Prostate Cancer, NMR
13. Study of Association of Methylene tetrahydrofolate Reductase (MTHFR) Polymorphisms in Infertile Men, Anatomy
14. Telomere status and DNA repair mechanisms in idiopathic male infertility, Anatomy
15. Ultrasound Guided Erector Spinae Plane Block for Postoperative Analgesia in patients undergoing percutaneous Nephrolithotomy—A double-blinded, Randomized controlled trial, Anaesthesia
16. Use of PET-CT with Gallium-68 Labeled Prostate specific membrane antigen in the diagnosis and follow-up of patients with Prostate Cancer, Nuclear Medicine

Completed

1. Erectile dysfunction in Nonalcoholic fatty liver disease, Medicine
2. Molecular subtyping of muscle invasive Bladder Cancer on the basis of immunohistochemical markers, Pathology
3. Role of Diuretic18F-FDG PET/CT in Patients of renal cell carcinoma and correlation of PET parameters with histopathological grading, Nuclear Medicine
4. Role of multiparametric MRI and diffusion tensor imaging in Prostate Cancer: Comparison with whole mount histopathological examination of Robotic prostatectomy specimens, Radiology
5. To study current practices of management of bacterial UTI in patients at AIIMS, Medicine

PUBLICATIONS

Journals: 26 Abstracts: 9

PATIENT CARE

Main Hospital OPD

New cases: 16,405 Old cases: 43,228

BRAIRCH Uro-malignancy clinic

New cases: 502 Old Cases: 6,377

Andrology and Infertility Clinic

New cases: 562 Old cases: 1,582
Admissions

<table>
<thead>
<tr>
<th>Long Admissions:</th>
<th>1,565</th>
<th>Short Admission:</th>
<th>1,063</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharges:</td>
<td>2,480</td>
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<td></td>
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Main OT Surgical Procedures: 2,175

**Open surgery: 431**

<table>
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<tr>
<th>Procedure</th>
<th>Count</th>
<th>Procedure</th>
<th>Count</th>
</tr>
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<tbody>
<tr>
<td>Radical cystectomy</td>
<td>34</td>
<td>Radical or cytoreductive nephrectomy</td>
<td>31+3</td>
</tr>
<tr>
<td>Radical cystectomy with nephroureterectomy</td>
<td>2</td>
<td>Radical nephrectomy with IVC thrombectomy</td>
<td>14</td>
</tr>
<tr>
<td>Salvage cystectomy</td>
<td>0</td>
<td>Radical Nephroureterectomy</td>
<td>9</td>
</tr>
<tr>
<td>Partial cystectomy</td>
<td>4</td>
<td>Simple nephrectomy</td>
<td>16</td>
</tr>
<tr>
<td>End to End Urethroplasty</td>
<td>15</td>
<td>Partial nephrectomy</td>
<td>5</td>
</tr>
<tr>
<td>Anterior lay open</td>
<td>1</td>
<td>Heminephrectomy</td>
<td>0</td>
</tr>
<tr>
<td>Transpubic Urethroplasty</td>
<td>0</td>
<td>RPLND</td>
<td>8</td>
</tr>
<tr>
<td>Augmentation Cystoplasty</td>
<td>2</td>
<td>Graft urethroplasty</td>
<td>14</td>
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<tr>
<td>Adrenalectomy</td>
<td>6</td>
<td>Second stage closure</td>
<td>7</td>
</tr>
<tr>
<td>Adrenalectomy with IVC thrombectomy</td>
<td>0</td>
<td>Pyeloplasty</td>
<td>9</td>
</tr>
<tr>
<td>Paraganglioma excision</td>
<td>1</td>
<td>Continent catheterisable pouch</td>
<td>0</td>
</tr>
<tr>
<td>VVF repair</td>
<td>9</td>
<td>Boari flap</td>
<td>2</td>
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<tr>
<td>VVF repair</td>
<td>17</td>
<td>Ureteroureterostomy</td>
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<tr>
<td>Vesicouterine fistula repair</td>
<td>2</td>
<td>Total penectomy</td>
<td>4</td>
</tr>
<tr>
<td>Orchidopexy/orchiectomy (undescended testis)</td>
<td>5</td>
<td>Prostatectomy</td>
<td>0</td>
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<tr>
<td>AUS implantation/Penile prosthesis</td>
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<td>Partial Penectomy</td>
<td>15</td>
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<tr>
<td>Perineal urethrostomy</td>
<td>6</td>
<td>Hypospadias repair</td>
<td>7</td>
</tr>
<tr>
<td>Cystolithotomy</td>
<td>2</td>
<td>TVT/TOT</td>
<td>0</td>
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<tr>
<td>Ilioinguinal lymph node dissection</td>
<td>3</td>
<td>Urterocalycomostomy</td>
<td>0</td>
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<tr>
<td>High Inguinal Orchietomy</td>
<td>19</td>
<td>Circumcision</td>
<td>33</td>
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<tr>
<td>Simple orchidectomy</td>
<td>75</td>
<td>Others</td>
<td>51</td>
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**Renal transplant: 30**

<table>
<thead>
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<th>Count</th>
<th>Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor nephrectomy</td>
<td>15</td>
<td>Live related renal transplant</td>
<td>15</td>
</tr>
</tbody>
</table>

**Endourology: 1,421**

<table>
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<th>Procedure</th>
<th>Count</th>
<th>Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper tract: 412</td>
<td></td>
<td>Lower tract: 1,009</td>
<td></td>
</tr>
<tr>
<td>PCNL</td>
<td>167</td>
<td>TURP/TUIP/TUEB</td>
<td>92</td>
</tr>
<tr>
<td>URS</td>
<td>173</td>
<td>TURBT</td>
<td>251</td>
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<tr>
<td>RIRS</td>
<td>58</td>
<td>TUR fulguration</td>
<td>25</td>
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<tr>
<td>PCNUL</td>
<td>7</td>
<td>TURED</td>
<td>5</td>
</tr>
<tr>
<td>Endopyelotomy</td>
<td>7</td>
<td>Clot evacuation</td>
<td>7</td>
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<tr>
<td></td>
<td></td>
<td>Endoevaluation</td>
<td>29</td>
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</table>

**Laparoscopic: 170**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
<th>Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radical nephrectomy</td>
<td>40</td>
<td>Partial nephrectomy</td>
<td>11</td>
</tr>
<tr>
<td>Simple nephrectomy</td>
<td>41</td>
<td>Adrenalectomy</td>
<td>28</td>
</tr>
<tr>
<td>Retroperitoneoscopic nephrectomy/nephroureterectomy</td>
<td>5+2</td>
<td>Radical Nephroureterectomy</td>
<td>11</td>
</tr>
</tbody>
</table>
Pyeloplasty 11 Ureterolithotomy 10
Pyelolithotomy 2 Lap radical prostatectomy 0
Ureteric reimplant 0 Paraganglioma excision 1
Simple nephroureterctomy 4 Diagnostic lap 3

Others 1

Robotic: 89

Radical prostatectomy 30 Radical cystectomy 0 Pyeloplasty 31
Ureterolithotomy 2 Simple prostatectomy 0 Ureteric reimplant 1
Partial nephrectomy 20 Radical Nephrectomy 1 Others 4

Microsurgery: 34

VEA 26 VVA 1 MVL 2
Scrotal exploration 5 TESE 0

Minor OT: 14,226

Endoscopic 3,118
Open 11
Minor cases 4,588
Uroflowmetry 6,119
Urodynamic Study 390

ESWL: 1,435

New cases 359 Old cases 1076

Ultrasound procedures: 298

Prostate TRUS biopsy 208 SPC 8
MRI - TRUS Fusion biopsy 51 PCN 3
In Bore biopsy 26 USG 2

Community services/camps etc.
1. Participated in National Conference on Awareness of changes in lifestyle influencing adolescent health at Balika Vidyapeeth, BITS Campus, Pilani on 15 September 2018 (Prabhjot Singh)
2. Prostate Cancer: Prevention, Screening, Diagnosis and treatment in short observership programme on Cancer Control and Prevention for North Eastern Region (NER) at AIIMS on 18 September 2018 (Prabhjot Singh)
3. Active contribution and free OPD services in a 3 day community health camp held at Shivkumari Dubey Intercollege, Naudhera, Suvansa, Pratapgarh, UP on 14 October 2018 (Rishi Nayyar)
4. Participated in medical camp at Leh, Ladakh on 25-30 September 2018 (Brusabhanu Nayak)
5. Participated in DD health show on “stone diseases and urinary tract infection’’ (Brusabhanu Nayak)
6. Participated in live public health programme “Swasthya Sanjeevani” on Prostate Cancer in All India Radio (Brusabhanu Nayak)

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Awards for residents
PG quiz for residents: Won by Dr Devanshu Bansal at NUSICON 2018.

Professor Prem Nath Dogra received 11th SELSI Oration “Robotics and General Surgeons”, 29 September 2018 at 11th National Conference of SELSI, BHU, Varanasi; Babu Parmanand Memorial National Award by Bharatiya Dalit
Professor Amlesh Seth was elected as President, North Zone Urological Society of India; Member of the Subject Expert Committee (SEC) (Reproductive and Urology) under DGHSs, Office of DCGI (India); Chaired Live surgery, Hypospadias in adults, Live Operative Workshop on Reconstructive Urology, 16-17 June 2018, Manipal; Chaired plenary session, Complication—This is how I managed it: Audience submitted cases, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea; Chaired sessions, “Live Surgery of Urethral Reconstruction in PFUDD”, “Laparoscopic UVF repair” and “Robotic Pyeloplasty”, NZUSICON 2018, 16-18 November 2018, Ludhiana; Chaired live operative workshop, Urethra@AINU, Workshop of ISORU, 2-3 March 2019, Hyderabad; Chaired live operative workshop, Pelvic Health Update, 8-9 March 2019, Chandigarh; Chaired Keynote Lecture session, EUA Annual Meeting, 15-19 March 2019, Barcelona, Spain.

Dr Prabhjot Singh: Indo American Cancer Association John N Kapoor fellowship “Urologic Clinical observership” at University of Southern California, Los Angeles, USA under Dr Inderbir Singh Gill from 16 October to 15 November 2018; Awarded Indian Journal of Urology Best Reviewer Award 2018 at USICON, Bhubaneshwar, Odisha on 24 January 2019; Chaired, LRP-DVC control and vesicourethral anastomosis, Workshop on Laparoscopic Urology, 10 March 2019, Ghaziabad; Chaired live surgery session, Global Perineocon 2018, 6-8 April 2018, New Delhi; Chaired live surgery session, Master class in Uro-oncology with live operative International minimally invasive surgery workshop 2018, 18-19 August 2018, New Delhi.

Dr Rishi Nayar presented Live Surgical Demonstration of ‘Vaginal VVF repair’ at Global Perineocon 2018, New Delhi; Achiever’s Award 2018 from Delhi Urological Society; Core faculty for the Board of Education of Urological Society of India UROMET Programme; Faculty for the SET (Skill-e Learning-Telemedicine) Facility; Member of the Subject Expert Committee (SEC) (Reproductive and Urology) under DGHSs, Office of DCGI (India); Editorial committee member, Indian Journal of Urology; Chaired, Filling cystometry, 2nd International Masterclass on Neurogenic Bladder, Incontinence and Urodynamics, BOE USI, 15-16 September 2018, New Delhi; Chaired, Technical Modifications in PCNL, PERCON 2018, 29-30 September 2018, New Delhi; Chaired, Reconstructive Urology Techniques, Reconstructive Urology, CUE NZUSI, 21-22 July 2018, Jodhpur; Chaired, Autologous Fascial Sling, Pre-Congress Workshop of AOGD on Pelvic Reconstructive Surgery, 23 November 2018, Gurgaon; Chaired, Female Urethroplasty, Pre-Congress Workshop of AOGD on Pelvic Reconstructive Surgery, 23 November 2018, Gurgaon; Chaired, Laparoscopic nephrectomy with IVC Thrombectomy, Workshop on Laparoscopic Urology, 10 March 2019, Ghaziabad.

Dr Brusabhanu Nayak Chaired Session, Workshop on Laparoscopic Urology, 10 March 2018, Ghaziabad.
10.1. Cardiothoracic Sciences Centre

Chief
VK Bahl

Cardiology
Professor and Head
VK Bahl

Professors
Anita Saxena
KC Goswami
Sundeep Mishra
N Naik
S Singh
SS Kothari
R Juneja
Sandeep Seth
G Karthikeyan
Ambuj Roy
Balram Bhargava*
R Narang
Rakesh Yadav
Gautam Sharma
S Ramakrishnan

Associate Professor
Saurabh K Gupta

Assistant Professors
Deepti Siddharthan Satyavir Yadav

*On deputation as DG ICMR

Cardiothoracic and Vascular Surgery
Professor and Head
SK Choudhary

Professors
UK Chowdhury
Milind P Hote
AK Biso
V Devagourou
Sachin Talwar

Associate Professors
Manoj Kumar Sahu
P Rajashekar

Assistant Professors
Sarvesh Pal Singh
Ramesh P Menon

Cardiac Anaesthesiology
Professor and Head
Sandeep Chauhan

Professors
Neeti Makhija
Sambhunath Das
Suruchi Hasija
Poonam Malhotra
Parag Gharde
Minati Choudhury
Vishwas Malik
Arindum Choudhury

Associate Professors
Suruchi Hasija
Arindum Choudhury
Cardiac Biochemistry
Professor
Lakshmy Ramakrishnan

Scientist I
Manoj Kumar Tembhre

Cardiac Nuclear Medicine
Professor
Chetan D Patel

Cardiac Pathology
Professor
Ruma Ray

Associate Professor
Sudheer Kumar Arava

Cardiovascular Radiology and Endovascular Interventions

Professor and Head
Sanjiv Sharma

Professors
Gurpreet Singh Gulati
Priya Jagia

Assistant Professors
Sanjeev Kumar
Arun Sharma

Stem Cell Facility
Professor
Sujata Mohanty

Blood Transfusion Services
Professor
R Lakshmy

Chief Medical Officer
Anjali Hazarika

Assistant Professor
Gopal Patidar

Sup. Medical Social Service Officer
Veena Belani

Chief Technical Officer
Bijay Majhi
Gulshan Mehta
Suresh Kumar
Gajendra Singh Chauhan
HIGHLIGHTS

**Cardiology**
In the year 2018-2019, the Department catered to nearly 1,40,000 outpatient visits. Over 35,000 patients underwent echo-cardiography and about 3,000 diagnostic cardiac catheterizations were performed. More than 3,000 patients underwent interventional procedures including angioplasty, device implantations and balloon valvoplasties.

During this period, the department participated in several research projects studying patients across a wide spectrum of cardiac disease. Important publications relating to STEMI, heart failure, rheumatic heart disease, and global burden of disease were published in high-impact scientific journals. We organized major cardiology meetings including CSI national conference 2018. The faculties of the department are part of major cardiology journals including Heart Asia, Indian Heart Journal, Annals of Pediatric Cardiology and JPCVS. Various faculty members were part of important committees.

In addition to patient-care, research and teaching, the department was involved in a major way in furthering the academic discourse in cardiology in the country. Faculty members from the department have been elected to executive positions in the national and regional cardiology bodies and have helped refocus on the academic agenda.

**Cardiothoracic and Vascular Surgery**
The Department was actively involved in patient care, teaching and research. A wide range of patients with all types of congenital and acquired cardiovascular diseases were seen in the outpatient clinic and one of the maximum numbers of surgical procedures in the country to manage these were performed. The department was actively engaged in research and collaboration at national and international levels in the field of research and publications. The faculty of the department delivered 122 lectures and presented 12 research papers at various national and international conferences and had 25 plus publications in peer reviewed national and international journals of repute. The educational activities of the department, especially in the fields of aortic surgery and cardiac surgical intensive care were noteworthy. A total of 15 workshops and 2 wetlabs were conducted encompassing lung transplantation, vascular anastomosis techniques, anticoagulation, proximal aorta and other topics dealing with diverse aspects of cardiac surgery. The department, with its intensive care team, did exemplary work in the field of infection control practices and developed post-cardiac surgery ICU care protocols.

**Cardiac Anaesthesiology**
The faculty and the resident doctors from the Department were awarded in national and international conferences. All Professors and Additional Professors had been examiners for various DM Cardiac Anaesthesia, MD Anaesthesia and DNB anaesthesia course all over India. Department has been a pioneer in starting a fellowship in Paediatric Cardiac Anaesthesia and approval sanctioned to start fellowship in Vascular Anaesthesia soon. All the faculties in the department are Editors, Editorial board/Review members of various national and international Cardiac Anaesthesia, Anaesthesia and Echocardiography journals. A book on Perioperative transesophageal echocardiography has been published by the joint effort of all the faculty members of the department. Dr Poonam Malhotra has become the President of IACTA (non-elected), continuing as the President of SCA-Delhi and NCR Branch (non-elected) and become the past President of ECMO Society of India (non-elected). She is Editor-in-chief of Journal of Cardiac Critical Care (JCCC). Released 2 issues in 2018. Most faculty members are on the Editorial/Advisory board of the journal. 72 papers published by the Department of Cardiac Anaesthesia published in various national and international journals. The faculties of department attended several international conferences and presented papers /delivered lectures.

**Cardiac Biochemistry**
The Department caters to inpatients and outpatients of cardiothoracic center. For several investigations carried out in the department patients are also referred from other departments as well as from other institutions. Quality of analysis is being ensured in the department through participation in several EQAS programmes. The department is active in research as evidenced by seven extra mural grants as chief investigators and 13 collaborative projects involving several departments. Two students are currently pursuing PhD and the faculty from cardiac biochemistry is involved in 5 other PhD thesis as co-guide. Faculty of the department is involved as technical advisory committee member for a nutrition survey being conducted by UNICEF and Health Ministry. The faculty from the department is also a member of technical advisory committee for AP Government for a project on chronic kidney disease. This is in addition to being an expert member of project review committee for ICMR in the area of non-communicable diseases and obesity and metabolic syndrome.

**Cardiac Nuclear Medicine**
Nuclear Medicine in Cardiothoracic Centre (CTC) is equipped with a Dual Head SPECT-CT Gamma Camera on which diagnostic nuclear cardiological procedures are performed routinely. The unit is also actively involved in teaching and research work. Nuclear Medicine Post Graduate and Nuclear Medicine Technology students are trained on rotational basis in nuclear cardiology procedures. Presently, I am involved in thesis or research paper work of 11 DM, MD, PhD and MSc students where nuclear cardiology is part of their research work. Myocardial SPECT studies with Tc-labeled tracers and PET studies with N-13 Ammonia and F-18 FDG are routinely performed. We have also started the use of other PET radiotracer like Gallium-68 DOTANOC for cardiac sarcoidosis, cardiac infective and inflammatory pathologies. We have
also assessed the feasibility of F-18 FDOPA for evaluation of cardiac sympathetic innervations. The unit was involved in international multi-center research project titled Value of intraventricular synchronism assessment by Gated SPECT Myocardial Perfusion Imaging (MPI) in the management of heart failure patients submitted to cardiac resynchronization therapy, funded by International Atomic Energy Agency, Vienna, Austria. This unit has been collaborating with other departments in funded project, one of which is funded by ICMR, one by International Atomic Energy Agency and one funded by National Heart, Lung and Blood Institute (NHLBI), USA.

**Cardiac Pathology**

The department is engaged in routine diagnostic reporting of Histopathology and Cytopathology cases, teaching of Undergraduate and postgraduate students, Coordinating Postgraduate seminars, journal clubs and Conducting Pulmonary Pathology interdepartmental conferences. The department is active in research and developmental activities, especially related to Cardiac and Pulmonary Pathology. The department performs other duties as and when rendered by the institute.

**Cardiovascular Radiology and Endovascular Interventions**

The faculty of the department delivered 59 lectures at various national and international scientific meetings. The department hosted 29 observers from various places in India and abroad. They were/are receiving training in various aspects of cardiovascular imaging and endovascular interventions. The faculties are members of editorial boards and reviewers for numerous scientific journals. The departmental faculty has been running 29 research projects and thesis. They published 22 research papers in various peer reviewed international journals. 21 papers were presented at various national/international meetings, some of which have also won awards. In addition 10 chapters were published in books. The department continues to provide cardiovascular imaging and vascular interventional treatment services to patients referred from various specialty departments in the hospital.

**Stem Cell Facility**

Stem Cell Facility is committed to rendering excellent patient care services with an integral part dedicated towards basic, preclinical and clinical stem cell research during the past financial year, 2018-2019. Department of Biotechnology, Government of India has extended its financial support for next 3 years towards developing this facility as Center of Excellence in Stem Cell Research. Overall, the facility is currently involved in 9 projects that are running in collaboration with other departments of AIIMS and funded by DBT, ICMR, DST, etc. The facility-in-charge, Professor Sujata Mohanty, takes utmost initiative in organizing various educational programmes involving training (both theory and hands-on-experience) to postgraduates and professionals from different institutions in India in the field of Science and Technology. A dedicated team of 16 PhD researchers, and 7 MD and DM students are registered for degree, along with a team of 4 Scientists and 1 DST-Inspire Faculty currently recruited in Government funded projects at the Facility. Research scholars from other reputed Institutes of India, like IISER Mohali, IIT Delhi, IIT Guwahati, IIT-Kharagpur, Delhi University-South Campus, IGIB, NIH, THSTI, NBRC and ICPO have also been co-supervised in their PhD work. The facility has successfully published a total of 16 research publications in high impact peer reviewed journals. Dr Mohanty is involved in several reputed international scientific organizations as a member of the editorial board committee in Scientific Reports (Nature publishing group), Translational Surgery, current Trends in Stem cells and Regenerative Medicine, Insights in Stem Cells, etc. She is also an active member of various international and national bodies like International Society for Cellular Therapy (ISCT), International Society for Stem Cell Research (ISSCR) and International Society of Biological Chemists, Indian Science Congress, Indian Immunology Society. She has delivered several lectures (as invited speaker) in several Research Institutes/Universities across the country and is providing continuous support and contribution towards the evaluation of various research projects under Research and Development section of the funding agencies like DBT, DST, ICMR, Bio-CARRe, BIRAC, etc. During this financial year, the facility has also collaborated with three international universities (University of Michigan, Bridgeport University and Purdue University, USA).

**Blood Transfusion Services**

The Blood Transfusion services of CN Centre caters to round the clock transfusion needs of patients admitted in CN Centre of AIIMS by collecting, processing and providing safe and quality blood and blood components. The activities include both inhouse and outdoor blood collection, blood donor motivation and pre-donation and post-donation counseling, blood component preparation, various serological tests and special procedures like apheresis and therapeutic phlebotomy. Components like packed red cells, plasma, fresh frozen plasma, platelet rich plasma, platelet concentrate, cryoprecipitate, leucodepleted red cells and platelets are available in adequate numbers at all times. Facility for Apheresis procedures and autologous donation is available. Surplus plasma is being sent for plasma product fractionation.

Serological tests performed in the BTS include tests for blood grouping, screening for irregular antibodies, compatibility tests using latest technology like column agglutination and SPRCA assay. Every unit of blood collected is tested for transfusion transmissible infections like Hepatitis B, Hepatitis C, HIV-1 and 2, syphilis, Malaria. Automation is used in most of the laboratories in the department for better output and quality. Donor blood samples are also being screened by NAT (Nucleic Acid Amplification test) as an additional screening test to detect HIV/HCV/HBV and thus improve blood safety.
Quality management system is in place for its products like blood and blood components, equipments, processes, and services. The BTS also participates in External Quality Assessment Scheme for its various Lab Tests. Haemovigilance, both recipients as well as donor vigilance is in place and the department participates in the Hamovigilance Programme of India (HvPI).

EDUCATION

Cardiology

The department is involved in the education and training of undergraduate, postgraduates. The daily academic activities include journal club, mortality meeting, cath conferences, short and long seminars, debates, clinical case discussion and spotters by faculty.

CMEs/Workshops/Symposia/National and International Conferences

1. CSI 2018 Scientific contents, Mumbai
2. AIIMS Circulation Research Workshop, AIIMS, New Delhi
3. CSI Delhi Branch Annual Meeting 2019, New Delhi

Lectures delivered

VK Bahl

1. Recent trials in cardiology that are making news, CARDICON-2018, 7 April 2018, Bihar
2. Moderator and Judge-Selected Abstracts Session, TCTAP 2018, 28 April-1 May 2018, South Korea
3. Newer innovative procedures, NIC, 11 May 2018, Hyderabad
5. Upcoming innovations in interventional cardiology, APVIC, 30 June 2018, Delhi
6. Revascularisation in stable angina, Conference on Cardiovascular Diseases 2018, 5 August 2018, Kolkata
8. Left main trifurcation disease, TCT 2018, 21-25 September 2018, California
10. PLTA: Journey of last 40 years, IGIMS, 23 January 2019, Bihar
12. Trifurcation Angioplasty, Asia PCR/Sing Live 2018, 22-24 February 2019, Maharashtra
13. Recent interventional trials, India Live, 28 February-3 March 2019, Maharashtra

Anita Saxena

1. Cardiology, diabetes and nephrology at the limits, cardiology, diabetes and nephrology at the limits, 9-11 April 2018, London
2. Role of fetal echocardiography in detecting critical congenital heart defects for timely management, CME and Workshop in Paediatric Cardiology and Ped Cardio Thoracic Surgery, 21-22 April 2018, New Delhi
4. Evaluation of revised jones criteria for diagnosing acute rheumatic fever in the setting of a tertiary cardiac centre in India, AEPC 2018, 9-12 May 2018, Athens
5. Congestive heart failure in children timing of surgery in congenital heart disease RHD: Relic or relevant, CME, 3 June 2018, Chandigarh
6. Co-operation visit, Co-operation visit, 23-26 July 2018, Germany
7. NCM, NCM 2018, 11-12 August 2018, New Delhi
9. Late complications in adult with post-operative fontan: Treatment strategy, guidelines for primary and secondary prophylaxis for rheumatic heart disease in India, APPCS 2018, 30 August-1 September 2018, Bali
10. Echocardiography in rheumatic heart disease role of fetal echocardiography in detecting critical congenital heart defects for timely management, 10th International Echo Course and Workshop, 9 September 2018, Bhopal
11. How do I follow a child with rheumatic MR and AR steps to reduce burden of RHD in India, Annual Meeting of PCSI, 14-16 September 2018, Ahmedabad
12. Timing of surgery or catheter intervention in common CHD Interactive session on interesting X-rays of pediatric cardiac patients, CME, 21 October 2018, Ludhiana
15. Managing valvular heart disease in pregnancy left ventricular dysfunction: Differential diagnosis, WCC 2018, 5-8 December 2018, Dubai
16. Approach to cyanotic congenital heart disease, Clinical Cardiology Update, 11-12 January 2019, Chennai
17. Recent management of congestive cardiac failure, PEDICON, 9-10 February 2019, Mumbai
18. Transoesophageal echocardiography course on congenital heart disease, 28-29 March 2019, London

SS Kothari
1. Congestive heart failure in children, 19th Annual Conference of Paediatric Cardiac Society of India, 14-16 September 2018, Gandhi Nagar
2. (1) Infective Endocarditis, (2) Pulmonary Hypertension, 70th Annual Conference of Cardiological Society of India, 22-23 November 2018, Mumbai
3. Fontan Circulation, CME on Paediatrics Cardiology and Pulmonary Hypertension Society, 10 March 2019, Thiruvananthapuram

G Karthikeyan
2. Developing your research question, 19th Annual South African Heart Congress 2018, 4-7 October 2018, Sun City
3. The great debate: The orbita study: Implications for developing countries ignore at your peril, 19th Annual South African Heart Congress 2018, 4-7 October 2018, Sun City
4. How will we treat RHD patients in the future? 19th Annual South African Heart Congress 2018, 4-7 October 2018, Sun City
5. Should we be using digoxin in 2019? 2nd Asia-Pacific Heart Failure Forum 2018, 16 November 2018, Hong Kong
7. Use of anticoagulants in LMIC, World Congress of Cardiology 2018, 5-8 December 2018, Dubai
8. Thrombolysis for MI in 2019—Where should LMIC’s Invest, World Congress of Cardiology 2018, 5-8 December 2018, Dubai
10. Mechanical heart valve thrombosis, World Congress of Cardiology 2018, 5-8 December 2018, Dubai

S Ramakrishnan
1. NSTEMI, Cardicon 2018 (CSI), 7-8 April 2018, Patna
2. ARNI vs ACEI in HF, TAPICON 2018, 13-15 July 2018, Kodaikanal
3. Cardiology quiz, Update in CVD 2018, 5 August 2018, Kolkata
4. Statin use for primary prevention, Medicine 2018—ACP India Chapter, 2 September 2018, Lucknow
5. Post operated TOF, PCSI 2018, 14-16 September 2018, Ahmedabad
6. Venous contrast echocardiography, Congenital mitral and tricuspid valve disease, systemic approach to multi-valvular heart disease, Echo India 2018, 4-7 October 2018, Chennai
7. Angiography in CHD, India advanced CV Therapeutics 2018, 19-21 October 2018, Mumbai
9. Part of the scientific core team, 70th Annual Conference of Cardiological Society of India (CSI) 2018, 22-25 November 2018, Mumbai
10. Pulmonary hypertension, Cleveland Clinic—Advanced Certificate Course in Cardiology 2019, 2-3 February 2019, Hyderabad
Saurabh K Gupta

1. Virtual cardiac dissection, PCSI 2018, 14-16 September 2018, Gandhinagar
2. Virtual cardiac dissection, ACT 2018, 12-14 October 2018, Chennai
3. When to suspect cardiac disease in a child, UPPEDICON 2018, 16-17 November 2018, Lucknow
5. Advanced imaging for complex ccTGA, ccTGA Focussed Workshop, 12-13 January 2019, Mumbai
6. Timing of intervention in CHD—An overview, Delhi CSI PG Programme, 3 February 2019, New Delhi
7. Pathogenesis and management of fontan failure, Chitra Fontan Summit, 10 March 2019, Trivandrum
8. Is it RCM or CCP? 23rd Annual Conference of Delhi CSI, 23-24 March 2019, New Delhi

Oral papers/posters presented


Cardiothoracic Vascular Surgery

The department was actively involved in the teaching of undergraduates, postgraduates, MCh students, MSc (Perfusion technology) students and nurses. Currently 29 students are pursuing MCh in CTVS, 1 is pursuing DM in cardiac surgical intensive care and 12 are pursuing MSc (Perfusion technology). The department imparted short term training to 11 postgraduates and postdoctoral students from within AIIMS, New Delhi, 1 from Jammu and Kashmir and 3 from outside India (2 from Australia and 1 from Nigeria).

CMEs/Workshops/Symposia/National and International Conferences

1. Workshop on Lung Transplantation, 29 April 2018, All India Institute of Medical Sciences, New Delhi
2. Workshop on Lung Transplantation, 20 May 2018, All India Institute of Medical Sciences, New Delhi
3. Wet lab on Lung Transplantation, 20 May 2018, All India Institute of Medical Sciences, New Delhi
4. Anticoagulation Workshop, 9 September 2018, All India Institute of Medical Sciences, New Delhi
5. Workshop on Techniques of Vascular Anastomosis, 30 September 2018, All India Institute of Medical Sciences, New Delhi
6. Wet Lab on Techniques of Vascular Anastomosis, 30 September 2018, All India Institute of Medical Sciences, New Delhi
7. Workshop on Lung Transplant, 21 October 2018, All India Institute of Medical Sciences, New Delhi
8. Workshop on Techniques of Vascular Anastomosis, 28 October 2018, All India Institute of Medical Sciences, New Delhi
9. Workshop on Lung Transplant, 11 November 2018, All India Institute of Medical Sciences, New Delhi
10. AIIMS-NOTTO Workshop on Establishing universal guidelines for the management of organ donor, 28 November 2018, All India Institute of Medical Sciences, New Delhi
11. ECMO workshop conducted at Mech V 2018—A Comprehensive Mechanical Ventilation Course, From Basics to Advanced, 8-9 December 2018, New Delhi
12. Workshop on PiCCO in the cardiac lung ultrasound echo and advanced haemodynamics monitoring workshop (CLUE-2018), 16 December 2018, ILBS, New Delhi
13. ECMO workshop, 5th Annual Conference of the Heart Failure Association of India HFAICON 2019, 2-3 February 2019, Gurugram
14. Myths and Facts of H1N1 Virus, 1 March 2019, AIIMS, New Delhi
15. Workshop on Proximal Aorta, 16-17 March 2019, All India Institute of Medical Sciences, New Delhi
Lectures delivered

Shiv Kumar Choudhary

1. Lung transplant: Indian scenario, Workshop on Lung Transplantation, 29 April 2018, AIIMS, New Delhi
2. Indication and patient selection for lung transplant (Moderator), Workshop on Lung Transplantation, 29 April 2018, AIIMS, New Delhi
3. Preoperative work-up in lung transplant (Moderator), Workshop on Lung Transplantation, 29 April 2018, AIIMS, New Delhi
4. Techniques of lung transplant (Moderator), Workshop on Lung Transplantation, 20 May 2018, AIIMS, New Delhi
5. Technique of heart lung transplant (Moderator), Workshop on Lung Transplantation, 20 May 2018, AIIMS, New Delhi
6. Peri-operative management of lung transplant (Moderator), Workshop on Lung Transplantation, 20 May 2018, AIIMS, New Delhi
7. Wet lab on lung transplant (Moderator), Workshop on Lung Transplantation, 20 May 2018, AIIMS, New Delhi
8. Surgical preparation and cannulation technique in Acute Type A Dissection Repair, IACTS CT CME, 4 August 2018, New Delhi
10. Indications for oral anticoagulation and therapeutic INR (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
11. Anticoagulation excess: Danger signs and management (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
12. Anticoagulation on ECMO (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
13. Antiplatelets—Indications (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
14. Bridging therapy for patients on oral anti-coagulation (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
15. Newer/Novel Oral Anti-Coagulants (NOACs) (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
16. Patient education about anticoagulation (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
17. Pregnancy with PHV and anticoagulation (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
18. Starting and Achieving therapeutic INR levels (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
19. Thromboelastography—Relevant aspects to cardiac surgery (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
20. Warfarin resistance (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
21. Hardware requirements for vascular anastomosis, Workshop on Techniques of Vascular Anastomosis, 30 September 2018, AIIMS, New Delhi
22. Techniques of end to end vascular anastomosis, Workshop on Techniques of Vascular Anastomosis, 30 September 2018, AIIMS, New Delhi
23. Technique of end to side vascular anastomosis, Workshop on Techniques of Vascular Anastomosis, 30 September 2018, AIIMS, New Delhi
24. Wet lab on vascular anastomosis (Demonstrator), Workshop on Techniques of Vascular Anastomosis, 30 September 2018, AIIMS, New Delhi
25. Post-operative management of lung transplant (Moderator), Workshop on Lung Transplant, 21 October 2018, AIIMS, New Delhi
26. Immunosuppression after lung transplant (Moderator), Workshop on Lung Transplant, 21 October 2018, AIIMS, New Delhi
27. Managing acute Type A dissection at a non-specialized centre, 8th International Aortic Summit, 22-25 November 2018, Chennai, New Delhi
28. Aortic Surgery: How to prepare yourself, 8th International Aortic Summit, 22-25 November, 2018, Chennai, New Delhi
29. Video lecture, Carotid Cannulation, 8th International Aortic Summit, 22-25 November 2018, Chennai, New Delhi
30. Video lecture, Ventral Aorta Repair, 8th International Aortic Summit, 22-25 November 2018, Chennai, New Delhi
36. Nomenclature in proximal aorta (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
37. Anatomy of proximal aorta (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
38. Pathophysiology of ascending aortic aneurysm (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
39. Natural history and evidence based guidelines (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
40. Decision making in proximal aortic aneurysm, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
41. What should be done for moderately dilated aorta, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
42. How to read thoracic CT? (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
43. CT angiography in proximal aortic aneurysms (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
44. Echocardiography in proximal aortic diseases (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
45. Work-up in proximal aorta, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
46. Technique of Bentall’s procedure, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
47. Video lecture Bentall’s procedure, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
48. Anesthetic management in Bentall’s procedure (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
49. Perfusion management in Bentall procedure (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
50. Del Nido Cardioplegia (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
51. Perspective of OT Nurse in Bentall Procedure (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
52. Perspective of ICU nurse in management of aortic cases (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
53. Perspective of Physical Therapist in management of aortic cases (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
54. Cerebral and Spinal Cord Protection, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
55. AIIMS protocol of cerebral protection, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
56. Prevention of bleeding in proximal aortic surgeries (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
57. Video lecture hemiarch replacement, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
58. Video lecture hemiarch replacement with cannula translocation technique, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
59. Extra-cardiac anatomy relevant for aortic surgeon (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
60. Video lecture femoral cannulation (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
61. Video lecture axillary cannulation (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
62. Aortic dissection: Pathophysiology (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
63. Clinical presentation: Type A dissection (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
64. CT Angio in Type A dissection and its variants (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
65. Diagnostic evaluation in Type A dissection, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
66. Emergency room management in Type A dissection, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
67. Preparations for Type A dissection repair, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
68. Surgical repair of Type A dissection, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
69. Dissection repair: Anaesthesia perspective (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
70. Intra-op TEE in proximal aorta (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
71. NIRS (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
72. Video lecture I: Type A dissection repair, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
73. Video lecture II: Type A dissection repair, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
74. MRI in proximal aortic pathologies (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
75. Post-operative imaging in proximal aorta (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
76. Post-operative management in Proximal aorta (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
77. Arch and dissection: Perspective of perfusionist (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
78. Video lecture Frozen Elephant Trunk, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
79. Video Lecture Bio-Bentall’s, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
80. Video lecture: Pericardial packing, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
81. Video lecture: Trans-aortic edge to edge mitral valve repair, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
82. Video lecture: Ventral aorta repair, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi

Milind Hote

1. Heart valves—Donation, banking and transplantation, 5th FORT-MOHAN Foundation workshop on Transplant Coordination under the aegis of NOTTO held at Fortis Memorial Research Institute, 6 April 2018, Gurugram
2. Heart valve harvesting from deceased donor, NOTTO scientific session Safdarjung Hospital, 28 November 2018, New Delhi
3. ECMO vs LVAD—Bridge to heart transplant, 5th Annual Conference of Heart Failure Association of India, 2 February 2019, Gurugram
Sachin Talwar

1. Paediatric myocardial protection, Paediatric cardiac surgery and cardiology: Healing little hearts together, 22-23 April 2018, New Delhi
2. Problems in patients with adult congenital Heart disease, IACTS Techno College Cardiac CME, 5-6 May 2018, Kanpur
3. Current perspectives in Paediatric Myocardial Protection, Conclave on Paediatric Cardiac Perfusion and Intensive Care, 1 July 2018, Mumbai
4. Current developments in Fontan, CME of Indian Association of Cardiovascular and Thoracic Surgeons, 4 August 2018, New Delhi
5. Management of True Taussig-Bing Anomaly, 19th Annual Conference of the Paediatric Cardiac Society of India, 14-17 September 2018, Ahmedabad
6. Approach to palliative surgery in TOF patient, Paediatric Cardiac anesthesia update, 30 September 2018, Ludhiana
7. Management strategies of TOF patients in Indian scenario (Panelist), Paediatric Cardiac Anesthesia Update, 30 September 2018, Ludhiana
8. Surgical options in a child with transposition of great arteries, Cardiac Anesthesiology Post Graduate Assembly, 27-28 October 2018, AIIMS, New Delhi
9. Surgical strategies in patients with pulmonary hypertension, 70th Annual Conference of Cardiological Society of India, 22-23 November 2018, Mumbai
10. Living with the Fontan, 70th Annual Conference of Cardiological Society of India, 22-23 November 2018, Mumbai

Manoj Kumar Sahu

1. Antimicrobial Resistance (AMR), Infection Control Workshop, 4 April 2018, AIIMS, New Delhi
2. Role of mechanical circulatory support for heart failure patients, Heart Failure Workshop, 6 August 2018, AIIMS, New Delhi
3. Heparin Induced Thrombocytopenia/Thrombosis (HIT/HITT), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
5. Cardiac Output Devices—Which one is good for my ICU? Calibrated vs Non-calibrated pulse contour analysis device, Cardiac Lung Ultrasound Echo and Advanced Haemodynamics Monitoring Workshop (CLUE)-2018, 15-16 December 2018, Institute of Liver and Biliary Sciences, New Delhi
7. Management of Heart Transplant patients, Cardiac Failure and Advanced Heart Failure Workshop in Cardiovascular Research Convergence, 14 October 2018, AIIMS, New Delhi
8. Influenza in cardiac patients—Clinical diagnosis, Symposium on H1N1 myths and facts, 1 March 2019, AIIMS, New Delhi
9. Respiratory Care in Heart Failure (CPAP, BiPAP, Ventilators), 5th Annual Conference of the Heart Failure Association of India, 2-3 February 2019, Gurugram

Sarvesh Pal Singh

1. Heart Transplant ALL you need to know, AIIMS Nursing Update 2018, 6 August 2018, New Delhi
2. Paediatric Sedation in CT suite—What every Radiologist should know? CME on Advanced Cardiac Imaging at AIIMS, New Delhi, 18 August 2018, New Delhi
3. TEG aspects relevant to cardiac surgery, Anticoagulation Workshop, 9 September 2018, New Delhi
4. Anticoagulation on ECMO, Anticoagulation Workshop, 9 September 2018, New Delhi
5. Starting heart transplant programme in Government Hospital—Challenges and opportunities, ISOTCON 2018; 29th Annual Conference of Indian Society of Organ Transplantation, 5 October 2018, Hyderabad
9. Perioperative Immunosuppression and postoperative complications after Heart Transplant, 5th Annual Conference of the Heart Failure Association of India, HFAICON 2019, 2-3 February 2019, Gurugram, Haryana
10. ECMO for respiratory failure: The challenges ahead, Pulmocrit 2019, 3 March 2019, New Delhi
11. Critical Care Aspects of management of Primary Graft dysfunction after Heart Transplant, Midterm Meeting of Society for Heart Failure and Transplantation (SHFT) 2019, 24 March 2019, New Delhi

Oral papers/posters presented

4. Rabbani S, Singh SP, Hote MP, Heart Transplant at a Tertiary Care Institute—An Experience of Past 3 years, 6th Annual Conference of Society for Heart Failure and Transplantation, 15-16 September 2018, Coimbatore Best paper award
8. Talwar S, Makhija N, Sreenivas V, Coudhary SK, Airan B, Does a complete extracorporeal circulation free approach to patients with univentricular hearts leads to superior early outcomes? Annual meeting of the CHSS, 21-22 October 2018, Chicago, USA

Cardiac Anesthesiology

- 6 DM candidates including 1 sponsored and 9 other MD-Junior resident doctors from Main Anaesthesia Department have undergone super specialty training in Cardiac-Thoracic-Anaesthesia
- 6 MD candidates from Lady Harding Medical College and two from Kolkata were imparted short term training in the specialty of Cardiac-Anaesthesia
- Short term training imparted to 4 DM candidates from Shree Chitra Tirunal Institute, Trivandrum

CMEs/Workshops/Symposia/National and International Conferences

1. Workshop on ECHO Basic Course on ECHO Simulators, 15 July 2018, New Delhi
2. Workshop on VA and VV ECMO under the banner of TSS and Getinge India (Maquet), 25 August 2018, New Delhi
3. Live Webinar and Workshop on ECHO Advanced Course on GE and Phillips ECHO machines and simulators, 2 September 2018, New Delhi
4. Practices and advances in Cardiac Resuscitation on 21 October 2018 at AIIMS, New Delhi
5. CME: ‘Cardiac Anaesthesia Postgraduate Assembly 2018’, 27 and 28 October 2018, New Delhi
6. Workshop on Applied ECMO under the banner of SCA-Delhi and NCR Branch in association with ECMO Society of India (ESOI) and Getinge India (Maquet), 4 November 2018, New Delhi
7. Live Webinar and Workshop on PV cusps on TEE by Dr Navin C Nanda with Mediknit and hands-on workshop on Phillips Echo Machine, 23 November 2018, New Delhi
8. Workshop on Point of Cardiac Care Ultrasound (POCCUS) by Dr Navin C Nanda, Dr Rakesh Gupta, Dr KK Kapur, Dr Kanchi Muralidhar, Dr Naman Shastri on ECHO Simulators, 17 February 2019, New Delhi

Lectures delivered

Neeti Makhija
1. Anaesthetic concerns in a child with congenital heart disease for non-cardiac surgery, 17th North Zone ISA Conference and 57th Annual Conference of ISA-Delhi Chapter, 13-14 April 2018, New Delhi
2. Anaesthetic and Perioperative management of Ascending Aorta and Aortic Arch Anomalies, Post Graduate Assembly organized by the Department of Cardiac Anaesthesia, 27-28 October 2018, New Delhi
3. Echo Assessment of Prosthetic Valve, 13th Annual Perioperative and Critical Care Transesophageal Echocardiography Workshop, 1-3 March 2019, Chandigarh

Poonam Malhotra Kapoor
3. Physics, instrumentation and machine settings, XXIV World Congress of Echocardiography and Cardiovascular Imaging, 17-20 May 2018, Albena Resort, Bulgaria
4. Intraoperative echocardiography, XXIV World Congress of Echocardiography and Cardiovascular Imaging, 17-20 May 2018, Albena Resort, Bulgaria
5. 3D TEE in cardiac surgery, XXIV World Congress of Echocardiography and Cardiovascular Imaging, 17-20 May 2018, Albenza Resort, Bulgaria
6. Anticoagulation in ECMO, Hemodynamic Monitoring Workshop, 26 May 2018, Jaipur
7. Echocardiographic Navigation in AF How to Choose NOAC, Atrial Fibrillation Symposium, 27 May 2018, New Delhi
8. Post Paediatric Cardiac Surgery: Low Cardiac Out Put Syndrome Management, 6th Fiacta Refresher Course, 8-10 June 2018, Ahmedabad
9. Management of Donor for Heart Transplant and Management of Transplanted Patient in ICU, 6th Fiacta Refresher Course, 8-10 June 2018, Ahmedabad
10. Attend a webinar and delivered a lecture on ECHO in ECMO, Ecmo India 2018—9th National Training and Cardiac ECMO Conference, 20-22 June 2018, Mumbai
11. ECMO in Critical Care, Crticogynecon-2018, 23 June 2018, New Delhi
12. Heart Failure Current Management: When Drugs Alone is not Enough: ECMO, LVAD/Heart Transplant, 10th Asia Pacific Vascular Intervention Course (APVIC-X) / Fellows Course, 29 June -1 July 2018, New Delhi
13. Expert Panelist in a session on Heart Failure: Classical Repertoire, Modern Instruments, 10th Asia Pacific Vascular Intervention Course (APVIC-X) / Fellows Course, 29 June -1 July 2018, New Delhi
14. Transesophageal Echocardiography, Medanta ICU Summit, 30 June-1 July 2018, Gurgaon
15. Conducted a hand-on workshop on TEE on simulator, Medanta ICU Summit, 30 June-1 July 2018, Gurgaon
17. Conducted a hand-on workshop on TEE and TEE, TSS Sim Education Webinar, 15 July 2018, New Delhi
18. Anticoagulation during ECMO, National Mechanical Ventilation, Haemodynamic and ECMO Workshop, 17-20 July 2018, Bangalore
19. Simulation in echocardiography, 12th National and 3rd International IACTA-TEE Workshop (PWTEET), 20-26 August 2018, Bangalore
22. Chaired a session on MICS, SMICTSI 3rd Annual Conference of SMICTSI, 9 September 2018, Bengaluru
23. Iabp, Inotropes and Vad for Cardiac Resuscitation, Practices and advances in Cardiac Resuscitation, 21 October 2018, New Delhi
26. Current status preventing and managing perioperative delirium, 13th Chennai Cardiac Anaesthesia Update, 10-11 November 2018, Chennai
28. Anticoagulation and monitoring—Newer trends, ECMOCON Kolkata 2018, the 9th Annual Conference of ECMO Society of India, 8-9 December 2018, Kolkata
29. Echo in ECMO, ECMOCON Kolkata 2018, the 9th Annual Conference of ECMO Society of India, 8-9 December 2018, Kolkata
30. Topic: Ethical and medicolegal issues in ECMO, ECMOCON Kolkata 2018, the 9th Annual Conference of ECMO Society of India, 8-9 December 2018, Kolkata
31. Coagulation management in ECMO, 6th Annual Conference SWAAC ELSO 2019, 15-18 January 2019, Cairo, Egypt
32. ECMO complication, 6th Annual Conference SWAAC ELSO 2019, 15-18 January 2019, Cairo, Egypt
34. Monitoring and Optimizing Oxygen Delivery on VV and VA ECMO, CRITICARE 2019, Silver Jubilee 25th Annual Conference, 30 January-3 February 2019, Mumbai
37. Panelist of a session on Importance of the latest hypertension guidelines and their applicability for public health in India, 74th Annual Conference of the Association of Physicians of India, 7-8 February 2019, Kochi
38. CVD in women, Scope of the problem and possible prevention steps, 74th Annual Conference of the Association of Physicians of India, 7-8 February 2019, Kochi
39. Hemodynamically unstable patient in the ICU—Echo Guided Management, 22nd Annual Conference of Indian Association of Cardiovascular Thoracic Anaesthesiologists, 22-24 February 2019, Kolkata
40. Moderated a scientific session on Topic Venoarterial ECMO S/P Single Ventricle Repair—Indications; Management and Weaning Challenges 22nd Annual Conference of Indian Association of Cardiovascular Thoracic Anaesthesiologists, 22-24 February 2019, Kolkata
41. Hypertension in women, Scientific CME, themed—Womb to Womanhood, 8 March 2019, Bengaluru

Sambhunath Das
1. Cardiac resuscitation in special disease/conditions from cardiac etiology, CME on Practices and Advances in Cardiac Resuscitation, 21 October 2018, New Delhi
2. Moderator for panel discussion on: ‘How to have a successful recovery from cardiac arrest?’, CME on Practices and advances in Cardiac Resuscitation, 21 October 2018, New Delhi
3. Perioperative management of Cardiac Transplantation, Post graduate assembly in Cardiac Anaesthesia at AIIMS, 27 November 2018, New Delhi

Vishwas Malik
1. Moderated a session on Surgical AVR versus TAVER, 2nd National Symposium on Cardiac Surgical Intensive Care, 22-24 June 2018, AIIMS, New Delhi
2. Moderator a session on Perioperative Bleeding, Cardiac Anaesthesia Update, 10-11 November 2018, Chennai
3. Evaluation of RV function, TEE workshop, 1 December 2018, Gurgaon

Suruchi Hasija
1. TEE and its role in cardiac and non-cardiac surgery, MD Anaesthesia Teaching Programme, 3 August 2018, New Delhi
2. Role of team work in CPR, Update in cardiopulmonary resuscitation, 21 September 2018, New Delhi
3. Myths and Facts of H1N1, Symposium on H1N1 Infection, 1 March 2019, New Delhi

Arindam Choudhury
1. Aetiopathogenesis and diagnosis of cardiac arrest, CME on Cardiac Arrest and Resuscitation, 21 September 2018, New Delhi
2. Airway assessment by ultrasonography, SANCON 2019, 17 February 2019, Kathamnadu
3. When to intervene the tricuspid valve after MVR, Perioperative and critical care TEE workshop (TEEPGI), 2 March 2019, Chandigarh
4. Physiology of CPB for open heart surgery, Part of PG—Lecture series, 9 March 2019, New Delhi

Oral papers/posters presented
1. Airan R, Kapoor PM, Chowdhury UK, Which is most appropriate criterion body weight or hematocrit in cyanotic cases during CPB, 1st Research Day AIIMS, 26 March 2019, New Delhi
2. Dhawan I, Makhija N, Choudhury M, Choudhury A, A modified tricuspid annular plane excursion for assessment of right ventricular systolic function, 33rd Annual Congress of the European Association of Cardiothoracic Anaesthesiology (EACTA) in collaboration with ACTACC, 19-21 September 2018, Manchester, UK
5. Makhija N, Magoon R, Ischemia begets right ventricular dysfunction after cone repair in a case of Epstein’s anomaly, 33rd Annual Congress of the European Association of Cardiothoracic Anaesthesiology (EACTA) in collaboration with ACTACC, 19-21 September 2018, Manchester, UK


**Cardiac Biochemistry**

- Guided 2 PhD students as chief guide and 5 as co-guide
- Chief guide for 2 MD student
- Co-guide for 10 MD thesis projects
- Took guest lecture for students of MSc (Forensic Science) of LNJNI National Institute of Criminology and Forensic Science, New Delhi

**CME/Workshops/Symposia/National and International Conferences Organized**

1. Hematology (Basic principle and its clinical implication), 6 August 2018, AIIMS, New Delhi
2. HbA1C (Basic principle and its clinical implication), 9 October 2018, AIIMS, New Delhi

**Lectures delivered**

**R Lakshmy**

1. Role of endothelial progenitor cells in coronary artery disease, Atherosclerosis—The Indian epidemic organized by Indian Society of Atherosclerosis Research—Delhi Chapter and Sir Gangaram Hospital, 26 September 2018, Delhi

**Manoj K Tembhre**

1. Nutrition and Health (Talk/Lecture), One Day Symposium at Galgotias University, 27 May 2018, Greater Noida, UP (Delhi-NCR)

**Oral papers/posters presented**


**Cardiac Nuclear Medicine**

- No. of Postgraduate students: 36 (20 MD Nuclear Medicine students and 16 MSc Nuclear Medicine Technology students on rotational basis in Nuclear Cardiology)
- No. of Thesis/research papers completed: 2
- Moderator in Journal Club/Seminars/Intra-department lectures: 8
- No. of new Thesis started: 2
- ‘On site’ teaching of MD students while reporting clinical studies

**CMEs/Workshop/Symposia/National and International Conference**

**Lectures delivered**

**Chetan D Patel**

2. Nuclear medicine in evaluation of cardiac sympathetic innervation, 16th Annual Conference of Association of Nuclear Medicine Physicians of India, 22-23 September 2018, Kochi, Kerala
3. Panel discussion on Nuclear Cardiology, 50th Annual Conference of Society Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh
4. Clinical application of nuclear imaging in CAD, 2nd World Congress on Cardiac Imaging and Clinical Cardiology, 22-24 February 2019, Sahar, Mumbai

Oral papers/poster presented

1. Dheer P, Gupta P, Taywade S, Passah A, Pandey AK, Patel C, Ordered subset expectation maximization parameters for image reconstruction in Tc99mMIBI myocardial perfusion single photon emission computed tomography in Indian population, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh

2. Goyal H, Bal CS, Patel CD, Goyal V, Tripathi M, Gupta P, Kumar P, Evaluation of cardiac sympathetic denervation using L-3,4-dihydroxy-6-F18 fluorodihydroxy phenylalanine-positron emission tomography-computed tomography in Parkinson Disease, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh


4. Goyal H, Tripathi M, Goyal V, Patel CD, Kumar P, Bal CS, Semiquantitative analysis of 18F-FDOPA brain PET-CT in Idiopathic Parkinson Disease Patients in correlation with clinical rating scale and in tremor predominant subgroup, 31st Annual Congress of the European Association of Nuclear Medicine, 13-17 October 2018, Congress Center Dusseldorf, Düsseldorf, Germany

5. Harish N, Bakhshi S, Patel C, Gupta RK, Sharma A, Sharma A, Bal CS, Kumar R, Role of PET-CT in staging and extent of chloroma in acute myeloid leukemia, 31st Annual Congress of the European Association of Nuclear Medicine, 13-17 October 2018, Congress Center Dusseldorf, Düsseldorf, Germany


9. Kumar R, Nalli H, Gupta RK, Bakhshi S, Patel C, Sharma A, Sharma A, Bal CS, Kumar R, Role of 18F-FDG PET/CT in Evaluation of Response to Therapy in Patients with Chloroma, 31st Annual Congress of the European Association of Nuclear Medicine, 13-17 October 2018, Congress Center Dusseldorf, Düsseldorf, Germany


11. Pandey AK, Lal S, Sharma A, Kumar R, Patel C, Bal CS, Optimization of number of principal components to be used for reconstructing 99mTc-MDP bone scan for reporting purpose, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh

12. Patel CD, Goyal H, Goyal V, Gupta P, Bal CS, Tripathi M, Evaluation of Myocardial Sympathetic Denervation in Advanced Parkinson Disease Patients with Autonomic dysfunction using 18F-FDOPA PET-CT, 31st Annual Congress of the European Association of Nuclear Medicine, 13-17 October 2018, Congress Center Dusseldorf, Düsseldorf, Germany


14. Singh S, Pandey AK, Sharma A, Patel C, Bal CK, Optimization of the value of MEVIS Image Registration Toolkit module parameters for PET/CT image registration on personal computer, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh

Cardiac Pathology

- Routine diagnostic reporting of Histopathology and Cytopathology cases
- Teaching of undergraduate students
Teaching of Postgraduate students
Coordinating Postgraduate seminars, journal clubs
Conducting Pulmonary Pathology interdepartmental conferences
Research and developmental activities, especially related to Cardiac and Pulmonary Pathology

Lectures delivered

Sudheer Kumar A
1. Cystic lesions of the lung, MAPCON, 7-9 September 2018, AFMC, Pune
2. Vascular lesions of the skin, MAPCON, 7-9 September 2018, AFMC, Pune
3. Panel discussion: Heart failure, CRC, 13 October 2018, ICGEB, New Delhi
4. Biopsy: Inflammation and viruses, Cardiovascular research convergence, 14 October 2018, AIIMS, New Delhi
5. Heart transplantation in India, APCON 2018, 30 November-1 December 2018, RMCH, Bareilly, UP
7. Cardiac anomalies in conjoint twins, International Conference on Conjoined Twins, 14-15 February 2019, AIIMS, New Delhi
8. Approach to myocarditis, ISHR, 15-17 February 2019, Marriott, Jaipur

Cardiovascular Radiology and Endovascular Interventions

Teaching

Extra-departmental
Undergraduates: Lectures on basics of cardiovascular imaging and vascular interventions
Postgraduates: Cardiac Radiology quiz, moderating seminars in departments of allied specialties viz. Medicine, Surgery, Gastroenterology, Cardiology and Cardiothoracic Surgery
Clinico-Radiology meetings with Department of Cardiology and CTVS
Participation in Clinical Combined Rounds and Clinical Grand Rounds with Allied specialties

Intra-departmental
Daily case presentations, and Weekly journal clubs and seminars

Training
Training of junior and senior radiology residents, senior residents in Cardiology, CTVS and Cardiac Anaesthesia, and external observers in techniques of cardiovascular imaging and vascular interventions

CMEs/Workshops/Symposia/National and International Conferences Organized
1. CME on Insights in advanced Cardiac Imaging: Ischemic Heart disease and congenital heart disease:18 August 2018, AIIMS, Delhi.

Lectures delivered

Sanjiv Sharma
1. Angio-CT hybrid laboratory-Role in vascular interventions, Workshop on hybrid and Advance Imaging, 26 April 2018, Chandigarh
2. Obtaining vascular access, 2nd CME on Image Guided Therapies from Basics to Advances, 18-20 May 2018, Sri Lanka
4. Imaging diagnosis and endovascular treatment of pulmonary embolism, 2nd CME on Image Guided Therapies from Basics to Advances, 18-20 May 2018, Sri Lanka
8. Complicated Type B Dissection-Difficult endovascular device landing, CPEC- 2018 and World Experts @ CPEC (WE @CPEC), 26-30 July 2018, China
9. Autologous stem cells for Critical Limb Ischemia, CPEC-2018 and World Experts @ CPEC (WE @CPEC), 26-30 July 2018, China
15. Endovascular management of vascular complications in oncologic practice, 5th Tumor Minimally Invasive Interventional Therapy and Targeted Therapy International Forum, 7-9 December 2018, Beijing, China
17. Imaging diagnosis and endovascular treatment in Takayasu’s arteritis, Annual Meeting of Society of Interventional Radiology, 23-28 March 2019, Austin, USA

Gurpreet Singh Gulati

1. Basics of Thrombolysis, AIIMS Radiology Course IR Primer, 14 April 2018, Delhi
2. CT and MRI in CHD, Healing little hearts together, CME in Pediatric Cardiology and Pediatric Cardiac Surgery, 21-22 April 2018, Delhi
3. Cardiac CT-anatomy and acquisition protocol, Cardiac Imaging CME, 18 August 2018, Delhi
4. Cultural resources for residents, AIIMS Resident Wellness Programme, 9 August 2018, Delhi
5. Cardiac MRI in ischemic heart disease, Cardiac Imaging CME, 18 August 2018, Delhi
6. What mistakes I made in cardiac imaging, Annual Conference of IACI, 6 October 2018, Delhi
7. Catheter angiography for anaesthesiologists, Cardiac Anaesthesiology Postgraduate Assembly, 27 October 2018, Delhi
8. Image optimization in cardiac MRI, 72nd Annual Meeting of IRIA, 18 January 2019, Chandigarh
9. Chairperson: Live endovascular workshop, Endovascular Live, 7 March 2019, Delhi
10. Follow up imaging after proximal aorta repair, AIIMS Proximal Aorta CME, 17 March 2019, Delhi

Priya Jagia

1. CT in aorta, CVT Aorta India 2018 and the Structural Heart Workshop, 4-5 August 2018, Delhi
2. Basics of cardiac MRI function, perfusion and tissue characterization, Cardiac Imaging Council Cardiological Society of India, 30 September 2018, Jaipur
3. Who should have a coronary CT angiography, Cardiac Imaging Council Cardiological Society of India, 30 September 2018, Jaipur
4. Imaging post op CHD, Indian Association of Cardiac Imaging, 5-7 October 2018, Gurgaon
5. Ideal candidates for coronary CT angiography, Annual Meeting of Cardiology Society of India CSI, 25 November 2018, Mumbai
6. Cardiac MRI in patients with VT, Annual Meeting of Cardiology Society of India CSI, 25 November 2018, Mumbai
7. Cardiac MRI on heart failure, Heart Failure Association of India, 2 February 2019, Gurgaon
8. Chest Xray in CHD, Delhi Branch of CSI, 3 February 2019, Delhi
9. Acute aortic imaging on CT-Diagnosis and case selection for intervention, Delhi Imaging Update, 24 February 2019, Delhi

Sanjeev Kumar

1. Workshop on (i) Popliteal artery access for SFA revascularization; Technique and hardware (ii) Sub intimal angioplasty; technique and hardware, 2nd CME of 2018 Imaged Guided Therapies: From Basics to Advances, 18 May 2018, Peradeniya, Sri Lanka
3. Conducted Quiz; Endovascular management strategies for various peripheral vascular problems, 2nd CME of 2018 Imaged Guided Therapies: From Basics to Advances, 20 May 2018, Peradeniya, Sri Lanka
4. Workshop on Ablation of varicose veins-Laser, RF, Microwave and chemical—A talk followed by how I do it with some discussion on handling the perforators, 1st NE-Emergency Radiology CME 2018, 21 June 2018, Guwahati
6. Pre-operative planning in TEVAR, AORTA India 2018, 4-5 August 2018, New Delhi
7. Workshop on aortic intervention, Aortic Intervention Workshop, 7 August 2018, Jodhpur
11. ER Workshop: Advanced IR Hardware, 5th Annual Conference of Society for Emergency Radiology (SERCON 2018), 4 November 2018, Hyderabad
15. Role of chest radiograph in current era in evaluation of CHD, 72nd Annual Conference of IRIA, 18 January 2019, Chandigarh
16. Current applications of Orthogonal imaging techniques in heart diseases, 72nd Annual Conference of IRIA, 18 January 2019, Chandigarh
17. Imaging and intervention in aortoarterities, 72nd Annual Conference of IRIA, 18 January 2019, Chandigarh
18. Imaging CMP: Fibrosis—The final frontier, ISHR 2019, 16 February 2019, Jaipur
19. Moderated session on endovascular treatment in hemodialysis fistula, 21st Annual Conference of ISVIR, 7 March 2019, Goa
20. Varicose vein ablation workshop, 21st Annual Conference of ISVIR, 10 March 2019, Goa
21. Imaging in ascending aortic aneurysm, Proximal Aorta CME, 16 March 2019, Delhi
22. Imaging in type A aortic dissection and its variants, Proximal Aorta CME, 17 March 2019, Delhi

Oral papers/posters presented

4. Malhi AS, Chandrashekhar Sh, Gulati GS, Kumar S, Sharma A, Submitral left ventricular aneurysms: Role of MDCT and cardiac MRI in the complete assessment and guiding their management, Annual Meeting of European Congress of Radiology, 27 February-3 March 2019, Vienna

7. Malhi AS, Chandrashekhara SH, Kumar S, Jagia P, Sharma A, Role of cardiac MRI T1 and T2 mapping in the evaluation of cardiac masses, Annual Meeting of European Congress of Radiology, 27 February-3 March 2019, Vienna

8. Malhi AS, Chandrashekhara SH, Kumar S, Jagia P, Sharma A, Role of cardiac MRI T1 and T2 mapping in the assessment of infiltrative cardiomyopathies, Annual Meeting of European Congress of Radiology, 27 February-3 March 2019, Vienna


14. Ojha V, Gulati GS, Seth S, Prevalence of inversion recovery patterns in cardiac amyloidosis as identified on MRI, IACI 2018, 5-7 October 2018, Delhi Awarded the 2nd prize in oral paper presentation


16. Shaw M, Chandrashekhara SH, Jagia P, Unusual cardiac involvement in primary immunodeficiency, IACI 2018, 5-7 October 2018, Delhi 1st prize in Interesting cases category


19. Shaw M, Jagia P, Pictorial review of RSOV focus on ECG gated CT, IACI 2018, 5-7 October 2018, Delhi

20. Shaw M, Malhi AS, Chandrashekhara SH, Kumar S, Dilated cardiomyopathy as the primary presentation of aortoarteritis: Diagnosis and interventional management, Annual Meeting of ISVIR, 7-10 March 2019, Goa


**Stem Cell Facility**
The department participates in PhD, DM and MD Programmes

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<th>S. No</th>
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**CMEs/Workshop/Symposia/National and International Conference**

1. A One Day Symposium on iPSCs technology: Current Progress and Future Scope, 1 May 2018, AIIMS, New Delhi

Lectures delivered
Sujata Mohanty

1. Exploring the wonders of stem cell therapy, One Day Symposium, 2 May 2018, New Delhi
2. Women leaders in science and technology, Women Scientist and Enterpreneur, 6-7 October 2018, Lucknow
3. Stem cell therapy: Recent advances, East Delhi Physicians’ Association 2018, 9 December 2018, New Delhi
5. Inspirational journeys: Never give up, BioCARe Conclave 2019, 8-9 March 2019, New Delhi

Oral papers/poster presented


Blood Transfusion Services

Lectures delivered
Anjali Hazarika

2. CMV Transmission: Leucodepletion vs Sero-negative Donors, Recent Trends in Transfusion Medicine, 4 April 2018, Max Super Speciality Hospital, Saket, New Delhi
3. Infection Control Strategies in Blood Bank, Workshop on Quality Care and Infection Prevention Strategies, under Swachhta Action Plan, by Department of Neurosciences, AIIMS, 2 May 2018, AIIMS, New Delhi
4. Haemovigilance—Scope, Term and Definition, CME on Haemovigilance and Donorvigilance, 9-11 August 2018, BHU, Varanasi
5. Blood Bank Services—Safe blood: Management and administrative aspects, 3rd Foundation Training Programme of the Newly Recruited CHS Medical Officers in collaboration with MOHFW, 1 September 2018, NIHFW, New Delhi
6. Panelist during CME on Haemovigilance at BHU, Varanasi, 9-10 August 2018
Gopal Kumar Patidar


Oral papers/posters presented


RESEARCH

Cardiology

Funded projects

Ongoing

1. To study the prevalence of rheumatic heart disease among adults 18-25 years age group in Ballabgarh Block of Haryana using echocardiography with Doppler, Anita Saxena, DHR, 3 years, 2016-2019, Rs 38.83 lakhs
2. Study of biomarkers in acute heart failure, S Seth, DHR, 3 years, 2017-2020, Rs 80 lakhs
3. INVICTUS (INVestigation of rheumatiCAF Treatment Using vitamin K antagonists, rivaroxaban or aspirin Studies), G Karthikeyan, Population Health Research Institute, Canada, 4 years, 2016-2020, Rs 16.7 crores
4. Surgery compared to fibrinolytic therapy for left-sided valve thrombosis (SAFE-PVT), G Karthikeyan, ICMR, 2 years, 2017-2019, Rs 69 lakhs
6. Steering Committee Member and National Principal Investigator of G-CHF (Global Congestive Heart Failure) Registry, A large multinational registry of heart failure patients, Ambuj Roy, PHRI, Canada, 3 years, 2017-2020, Rs 64.20 lakhs
7. Steering Committee Member and National Principal Investigator of the IVVE Trial (Influenza Vaccine To Prevent Adverse Vascular Events), A trial to study role of Influenza vaccine in preventing cardiovascular events in patients of heart failure, Ambuj Roy, PHRI, Canada, 4 years, 2016-2020, Rs 144.77 lakhs
8. The National Heart Failure Registry, A ICMR sponsored heart failure registry, Ambuj Roy, ICMR, 3 years, 2018-2020, Rs 25.57 lakhs
9. Semaglutide Effects on Heart Disease and Stroke in Patients with Overweight or Obesity (SELECT) Trial an International Multicentric Trial sponsored by Novo Nordisk, Ambuj Roy, Novo Nordisk, 5 years, 2018-2023, Rs 3.8 lakhs per patient (Total 20 patients)
11. Assessment of HDL quality in Healthy Adult Indians and Impact of High Altitude, Ambuj Roy, Defence Institute of Physiology and Allied Sciences, 2017-2019, Rs 51.23 lakhs
12. Yoga-CaRe Trial, Effects of a Yoga-based Cardiac Rehabilitation Programme (Yoga-CaRe) on cardiovascular health: A clinical trial (India) and mechanistic study (UK), Ambuj Roy, ICMR-MRC (UK), 2014-2018, Rs 24.06 lakhs
13. Childhood and young adult predictors of myocardial structure and function at age 45 years in the New Delhi and Vellore Birth Cohorts, India, Ambuj Roy, A British Heart Foundation funded study, 3 years, 2016-2019, Rs 20 lakhs

Completed

1. TEXTMEDS—TEXT Messages to Improve MEDication Adherence and Secondary prevention—An international randomized trial, National Health and Medical Research Council (NHMRC), Australia, 2 years, AUD 30,000
Departmental projects

Ongoing
1. Fibrillin gene mutation and markers of inflammation in RSOV Neurodevelopmental outcomes in children with cyanotic congenital heart disease following open heart surgery
2. Prevalence of asymptomatic myocardial ischemia among patients with chronic kidney disease
3. Streptococcal PCR in valve tissues of RHD
4. Worsening of PAH with lung infection in infants with VSD

Completed
1. Clinical and angiographic profile and six months outcomes of smoker’s patients of ST elevation myocardial infarction patients undergoing primary PCI
2. Determinants of delay in STEMI presentation—A qualitative analysis
3. Does high dose statin therapy cause memory impairment?
4. FOCUS Ultrasound: Development of protocol to teach FOCUS ultrasound to intensivists
5. Incidence and predictors of left ventricular dysfunction in patients with right ventricular pacing

Collaborative projects

Ongoing
1. A population based prospective cohort study to unravel the causes of stroke and cognitive decline, Neurology

Cardiothoracic and Vascular Surgery

Funded projects
1. Evaluation of safety and efficacy of BACE (Basal Annuloplasty of Cardia Externally) Device in the treatment of functional Mitral Valve Regurgitation (FMR), SK Choudhary, Phoenix Cardiac Devices, 4 years, 2015-2019, Rs 30 lakhs
2. Randomized control study to evaluate the efficacy of Ayush Card tea Raj Yoga meditation versus conventional treatment on clinical recovery and post-operative outcomes following mitral valve open heart surgery, SK Choudhary, Ministry of AYUSH, 2 years, 2018-2019, Rs 45 lakhs
3. Dafodil-1: A prospective, multicenter, single arm clinical study to evaluate safety and performance of the Dafodil pericardial bioprosthesis in patients who require replacement of their natural or prosthetic aortic or mitral valve, SK Choudhary, Meril Life Sciences, 5 years, 2015-2019, Rs 20 lakhs

Departmental projects

Ongoing
1. Acute Type A dissection complicated by stroke: Optimum strategy?
2. Aneurysm of Sinus of Valsalva dissecting into interventricular septum
3. Coarctation of aorta in adults
4. Comparative study of exercise performance after total correction with Trans Annular Patch (TAP) versus Non Trans Annular Patch (Non-TAP) after repair of Tetralogy of Fallot
5. Comparison of Plasmalyte A based Del-Nido cardioplegia solution with plain ringer based Del-Nido cardioplegia solution in pediatric patients undergoing open heart surgeries: A prospective randomized trial
6. Comparison of pleural effusion between fenestrated and non fenestrated Fontan–A prospective randomized study
7. Delayed sternal closure in pediatric cardiac surgery
8. Demographic, clinical, and radiological profile of patients with Acute Type A dissection
9. Genetic screening in patients with Bicuspid Aortic Valve
10. Management of coarctation of aorta with ascending aortic aneurysm
11. Morphology of Sinus of Valsalva aneurysms in Indian patients
12. Mycobacterial Aortopathy: An institutional review of its presentation and management
13. Neurological outcome of aortic arch replacement surgery without hypothermic circulatory arrest
15. Oral sildenafil administration in patients undergoing extra cardiac Fontan procedure—A double blinded randomized study
16. Outcome of post cardiac surgery patients with sepsis
17. Perfusion strategies in patients undergoing Coronary artery bypass grafting
18. Perfusion strategies in patients undergoing TOF repair in the first decade of life
19. Surgical audit and outcome of patients who underwent Bentall’s procedure with hemiarch procedure
20. The satisfaction levels of heart transplant recipients seeking post transplant medical care at a tertiary care government hospital: A questionnaire-based study
21. Tracheostomy in Paediatric cardiac surgical patients
22. Unidirectional valved patch closure of septal defects in severe PAH: Hemodynamic outcomes

**Completed**

1. A comparative observational study to evaluate effect of hyperoncotic cardio-pulmonary bypass priming on extravascular lung water in adult patients undergoing coronary artery bypass grafting
2. Assessment of Circle of Willis in Indian population
3. Comparative analysis between two crystalloid balanced electrolyte priming solution (Plasmalyte-A and SterofundinIso) in adult patients undergoing cardiopulmonary bypass in the Cardiac Surgery
4. Development of a model for albumin priming in pediatric cardiopulmonary bypass circuits
5. Effect of Vitamin D supplementation on outcome in children undergoing open heart surgery: Randomized controlled trial
6. Efficiency of using mannitol according to weight in patients undergoing cardiopulmonary bypass
7. Genetic polymorphisms and dosing of Warfarin in Indian patients after heart valve surgery
8. Histopathological study of extent of degenerative changes in ascending aorta of patients with bicuspid aortic valve
9. Homograft Valve Banking
10. Prevalence of Bicuspid Aortic Valve (BAV) and ascending aortic dilatation in First Degree Relatives (FDR) of patients with BAV
11. The effect of negative pressures used during ultrafiltration on erythrocytes
12. The role of pre-cardiopulmonary bypass haemofiltration of blood prime in children with acyanoticcongenital heart diseases undergoing cardiac surgery
13. Total anomalous pulmonary connection beyond the first decade of life

**Collaborative projects**

**Ongoing**

1. Early enteral feeding with supplemented mother’s milk in post-operative Paediatric cardiac surgical patients: A randomized controlled trial, Institute of Home Economics, Delhi University

**Cardiac Anesthesiology**

**Funded projects**

**Ongoing**

1. A single blind randomized controlled study to evaluate the effect of Rajyoga Meditation on Biochemical and cognitive co-relates of cardiac rehabilitation in patients of surgical repair of congenital heart disease, Usha Kiran, DST, 2 years, 2017-2019, Rs 23 lakhs
2. Evaluation of efficacy of the point-of-care guided hemostatic management in cyanotic congenital cardiac surgery patients using AIIMS algorithm: A prospective randomized study, Poonam Malhotra Kapoor, JCCC—TSS Research Grant, 2 years, 2017-2019, Rs 12 lakhs

**Completed**

2. Comparison of bivalirudin to heparin with protamine reversal in acyanotic children undergoing open heart surgery, Suruchi Hasija, AIIMS, 2 years, 2015-2017, Rs 5 lakhs
Departmental projects

Ongoing

1. Comparison of RVOT gradient in different echocardiographic views in patients with Tetralogy of Fallot undergoing surgery
2. Comparison of Tricuspid Annular Plane Systolic Excursion (TAPSE) with modified TAPSE in coronary artery bypass patients
3. Correlation of echo guided with direct pulmonary artery pressure measurements in patients with acyanotic congenital heart disease with isolated ventricular septal defect
4. Evaluation of blood loss in menstruating women undergoing cardiac surgery
5. Right atrial speckle tracking echocardiographic indices as a method for assessing pulmonary arterial pressures in patients with left sided valvular heart disease

Completed

1. Comparison of grading of aortic stenosis between transthoracic and transesophageal echocardiography in adult patients undergoing elective aortic valve replacement surgeries: A prospective observational study
2. Randomized study comparing pre-operative glycemic profile in pediatric cardiac surgical patients administered oral carbohydrate solution preoperatively versus those kept fasting
3. Role of Echocardiography derived right ventricular function parameters as compared to PRV/LV ratio for evaluation of perioperative right ventricular function in children undergoing intracardiac repair for Tetralogy of Fallot

Collaborative projects

Ongoing

1. Intraoperatively comparing 2D and 3D TEE to assess the potential increment value of 3DTEE over 2DTEE, University of Alabama at Birmingham, Alabama, USA

Cardiac Biochemistry

Funded projects

Ongoing

1. Proposal for engagement of All India Institute for Medical Sciences to serve as qc lab for comprehensive national nutrition survey, R Lakshmy, UNICEF, 4 years, 2016-2020, Rs 233 lakhs
2. To study the association of tetrahydrobiopterin (BH4) levels in Endothelial Progenitor Cell (EPC) with the functional activity of EPC in Coronary Artery Disease (CAD) patients, R Lakshmy, ICMR, 2 years, 2017-2019, Rs 39 lakhs
3. Double blind randomized control trial to study the effects of probiotic supplement, bacillus coagulans unique is2 and bacillus clausii on protein absorption, body composition, muscular strength, and immunity in resistance trained adult males, R Lakshmy, Unique Biotech, 20 months, 2016-2019, Rs 37 lakhs
5. Childhood and young adult predictors of myocardial structure and function at age 45 in the New Delhi birth cohort and Vellore Birth Cohorts India: Biochemical component Delhi, R Lakshmy, BHF, 3 years, 2016-2019, Rs 20 lakhs
6. Deciphering the mechanism of alarmin induced necroptosis and its role in immune homeostasis and inflammation in atherosclerosis, Manoj K Tembhre, DST-SERB (Early Career Research Grant Award), 3 years, 2017-2020, Rs 50 lakhs
7. Defining the role of Neutrophil Extracellular Traps (NETs) in immune regulation and inflammation, Manoj K Tembhre, AIIMS, 2 years, 2017-2019, Rs 8.5 lakhs

Completed

1. Health survey of tribal population in Kashmir valley with special reference to magnitude and risk factors of non communicable diseases, R Lakshmy, DBT, 3 years, 2016-2019, Rs 171 lakhs

Departmental projects

Ongoing

1. Assessment of ABO antibody titer and coagulation factor level after mixing and dilution with noraml saline of A and B grouo donor plasma
2. Optimizing blood inventory in a Blood Bank at a Super-speciality Centre in India
3. Outcome of leuco-reduced and non leuco-reduced blood components transfused in patients undergoing cardiac surgery
4. Study of Endothelial Progenitor Cell (EPC) tetrahydrobiopterin (BH4) levels and its association with EPC number and function in Coronary Artery Disease (CAD) patients

**Collaborative projects**

**Ongoing**

1. A randomized control trial to access the effectiveness of Nurse-Led Structured Telephonic Heart Failure Management Programme on selected health related outcome variables at 3 months, College of Nursing
2. A single blinded randomized control study to evaluate the effect of Rajyoga meditation on biochemical and cognitive correlates of cardiac rehabilitation in patients of surgical repair for congenital heart disease, Cardiac Anaesthesia
3. Association of Common Mental Disorders with Diabetes Mellitus—A Community based Case-control Study in North India, CCM
4. Cellular and molecular heterogeneity of normal superior and inferior parathyroid glands at different ages, Pathology
5. Effect of Vitamin D supplementation on outcome in children undergoing open heart surgery: A randomized controlled trial, CTVS
6. Elucidating the role of TNIP1, IL2B and NFkBIA and their target micro RNA in regulating the inflammation and skin homeostasis in psoriasis, Deramnology and Venereology
7. Evaluation of Human Epididymis Protein 4 (HNE) in the diagnosis of ovarian cancer, Laboratory Oncology
8. Impact of supplementation of package of Iron and Folic Acid (IFA) with Vitamin B12 on Hemoglobin Levels amongst Adolescent Gills (12-19 years), Human Nutrition Unit
9. Intraoperative lung protective ventilation in peritonitis patients undergoing emergency laparotomy: A randomized controlled trial, Anesthesiology
10. Prevalence of Non-Alcoholic Fatty Liver Disease (NAFLD) and its association with cardio-metabolic disease risk factors in North India, Endocrinology
11. Study of inner ear protein Otolin-1, Vitamin D and ionized calcium in circulation as a biomarker in non-Meniere’s Disease vertigo patients, Otorhinoralyngology
12. Th2/Th17 inflammation modulating filaggrin expression and disease severity in children with moderate atopic dermatitis, Dermatology
13. The modulation of insulin resistance and HDL quality by adipose tissue ABCA1 and metabolic status, Biochemistry

**Completed**

1. Assessment of nutritional, morbidity status and utilization of health care facilities in the elderly population aged 60 years and above, Human Nutrition Unit
2. Assessment of prevalence of Vitamin D deficiency and associated factors amongst children in the age group of 6-18 years from Three High Altitude Regions (1,000 meters and above) of Himachal Pradesh, India, Human Nutrition Unit
3. Association of Vitamin D and calcium with development of breast cancer: A case control study, Human Nutrition Unit
4. Defining miRNA signatures in vitiligo and skin pigmentation, Dermatology and Venereology
5. National NCD’s monitoring survey, CCM
6. Population prevalence of Vitamin D deficiency in Urban and Rural Delhi and its Association with Cardiovascular Disease Risk Factor, Cardiology
7. Study of prevalence of overweight, obesity and pediatric metabolic syndrome and associated risk factors in children in the age group of 10-16 years belonging to HIG in district Shimla, Himachal Pradesh, Human Nutrition Unit

**Cardiac Nuclear Medicine**

**Funded projects**

**Completed**

Department projects

**Ongoing**
1. Comparison of 68Ga PSMA PET/CT and 18F Fluoride PET/CT in high risk prostate cancer
2. Comprehensive assessment of right ventricle function and pulmonary perfusion in patients with Eisenmenger syndrome using multi-modality imaging
3. Design and methods of the YOGICAD study—A probe trial to evaluate the efficacy of yoga based cardiac rehabilitation in Post PCI patients
4. Effect of dietary intervention in reducing interfering infra-cardiac activity in patients undergoing Tc99m-MIBI Myocardial Perfusion SPECT
5. Interim treatment response evaluation of high grade lymphoma using texture analysis on F-18 FDG PET-CT
6. Optimisation and validation of input parameters for scintigraphic image deionising using Wavelet Transform
7. Prevalence of asymptomatic stress induced myocardial ischemia in patients with advanced CKD by stress myocardial perfusion scintigraphy
8. Role of F-18 FDG PET-CT in staging and early treatment response evaluation in patients of soft tissue sarcoma
9. Role of Ga68-DOTANOC PET/CT in Cardiac Sarcoidosis; Comparison with Cardiac MRI
10. To assess the feasibility of Flourine-18 Fluoro L-Dihydroxyphenylalanine (F-18 FDOPA) PET-CT for evaluation of cardiac sympathetic innervation in Heart Failure, Comparison with Carbon-11 Hydroxyephedrine (C-11 HED) PET-CT
11. To study the role of vascular function and pain sensitivity in microvascular angina

**Completed**
1. Comparison of Left Ventricular Ejection Fraction (LVEF) derived on OSEM and FBP reconstructed images in Tc99m-MIBI myocardial perfusion SPECT: Validation with LVEF derived on Equilibrium Gated Radionuclide Ventriculography (ERNA)
2. Evaluation of F-18 FDOPA in detection of Myocardial Sympathetic Denervation in patients with Advanced Parkinson’s Disease
3. Image compression using principal component analysis
4. Image enhancement using stochastic resonance
5. Image segmentation using adaptive thresholding
6. PET-CT imaging of chloromas in pediatric acute myeloid leukemia: A prospective study
7. Role of Cardiac MRI in diagnosis and prognosis in patients of cardiac sarcoidosis using T1 mapping, T2 mapping and late gadolium enhancement
8. Role of Diuretic 18F-FDG PET/CT in patient of Renal Cell Carcinoma and Correlation of PET parameter with Histopathological subtype
9. Study of Cardiac Sympathetic Denervation by F-18 FDOPA PET-CT imaging in patients with Early Parkinson’s Disease and Atypical Parkinsonism

**Collaborative projects**

**Ongoing**
1. Value of Gated-SPECT MPI for Ischemia-Guided PCI of non-culprit vessels in STEMI Patients with Multivessel Disease after primary PCI, Cardiology

**Completed**
1. International Study of Comparative Health Effectiveness with Medical and Invasive Approaches, (Ischemia Trial), Cardiology
2. Prevalence of symptomatic and asymptomatic coronary artery disease in patients with ischemic stroke and TIA, Neurology, Cardiology

**Cardiac Pathology**

**Funded projects**

**Ongoing**
1. Immunohistochemical characterization of four common viruses in a clinically suspected cases of viral myocarditis, Sudheer, AIIMS, 2 years, 2018-2019, Rs 10 lakhs
Departmental projects

Ongoing
1. Detection of streptococcal bacterial DNA with polymerase chain reaction in excised valvular tissue of RHD patients
2. Fibrillin 1 gene mutation and TGF beta in TAAA of non marfanoid individuals
3. Histopathological evaluation of surgically excises rheumatic heart valves

Completed
1. A comparative study of efficacy and composition of various cell populations of extracted hair follicle outer root sheath cell suspension prepared using a single enzyme (trypsin) and multiple enzymes (trypsin, collagenase and dispase) for transplantation in vitiligo
2. Expression of Matrix Metalloproteinase-2, Matrix Metalloproteinase-9, Tissue Inhibitor Metalloproteinase-1, Tissue Inhibitor Metalloproteinase-2, Collagen I and IV Expression in Thoracic Aortic Aneurysms

Collaborative projects

Ongoing
1. Autologous non cultured dermal cell suspension transplantation in treatment of facial volume loss, Dermatology
2. Comparative evaluation of MicroRNA profiling and cytokine profiling analysis in patients with Pulmonary Sarcoidosis and Mediastinal tuberculosis, Pulmonary Medicine
3. Detection of streptococcal bacterial DNA with polymerase chain reaction in excised valvular tissue of RHD patients, Cardiology
4. Development of a new formulation and packaging for reducing adverse effects and injection pain of Mycobacterium vaccine and its clinical trial in recalcitrant anogenital and extra-genital (common) warts, Dermatology
5. Exploring the phenotypic and functional role of γδ T cell subsets along with Pattern Recognition Receptors (PRRs) in the immunopathogenesis of Pemphigus Vulgaris, Pharmacology
6. Finding the correlation of Toll Like Receptors (TLRs) with inflammation in patients with chronic heart failure, Cardiology, Safdarjung Hospital
7. Study of cardiac markers, gross findings and histopathological changes in heart in cases of suspected cardiac death, Forensic Medicine
8. Study of sesamol in bleomycin induced pulmonary toxicity in rat, Pharmacology

Cardiovascular Radiology and Endovascular Interventions

Funded projects

Ongoing
1. Utilization of intra arterial injections of autologous bone-marrow derived mononuclear cells for treatment of spinal injury, Priya Jagia, AIIMS, 2 years, 2016-ongoing, Rs 5 lakhs
2. Evaluation of therapeutic angiogenesis induced by intramuscular autologous platelet rich plasma in non revascularisable critical limb ischemia due to peripheral artery disease, Sanjeev kumar, AIIMS, 2 years, 2019-2021, Rs 4.9 lakhs.

Departmental projects

1. Assessment of image noise and image quality in Coronary CT Angiography (CCTA) using different strengths of ADMIRE (Advanced Modeled Iterative Reconstruction)
2. Comparative evaluation of drug eluting balloon angioplasty versus noncoated balloon angioplasty for endovascular interventions in patients of nonspecific aorto-arteritis: Prospective study
3. Comparison of non contrast MRA to contrast enhanced MRA in patient of PVD
4. Comparison of the outcomes of concomitant truncal laser ablation and tributary foam sclerotherapy versus truncal laser ablation alone in patients with lower extremity venous reflux—A single centre randomized controlled trial
5. Correlation of epicardial fat volume with severity of coronary artery disease and coronary plaque morphology
6. Derivation of nomograms for aortic and iliofemoral dimensions using multidetector computed tomography in the Indian population
7. Detection of cardiac allograft vasculopathy with dual source computed tomography in heart transplant recipients: A comparative study with conventional coronary angiography
8. Endovascular interventional complications: Feasibility and comparison between SIR, proposed new SIR and CIRSE reporting standards
9. Evaluation of 12-month evolution of the aortic volume in patients who undergo (TEVAR) with stent grafts for complicated type B aortic dissection
10. Measurement of subvalvular involvement in patients with rheumatic mitral stenosis
11. Patterns of subvalvular involvement in patients with rheumatic mitral stenosis
12. Prognostic value of decrease in corrected coronary opacification in predicting major adverse cardiovascular events in patients of coronary artery disease
13. Quantification of aortic valve calcification on computed tomography angiography in patients of Aortic Stenosis
14. Renal morphological changes after successful renal angioplasty in young patients with uncontrolled hypertension due to Takayasu arteritis
15. Rheumatic heart disease with mitral stenosis: Incidence of LA, LAA thrombus and correlation with LAA morphology by DECT
16. Role of cardiac magnetic resonance imaging in identification of myocardial fibrosis and wall morphology in patients of nonischemic dilated cardiomyopathy
17. Role of cardiac MRI in diagnosis, prognosis and treatment response in patients of cardiac sarcoidosis using T1 mapping, T2 mapping and Late Gadolinium Enhancement (LGE)
18. Role of cardiac MRI in patients of Nonspecific Aorto-arteritis and its value in prognostication and assessment of treatment response
19. Role of CEUS in activity in NSAA
20. Role of dual energy CT in tissue iron identification quantification in iron overload syndrome
21. Role of dual energy CT pulmonary perfusion in evaluation of chronic obstructive pulmonary artery disease and its value in assessing treatment outcome
22. Role of MDCT in the evaluation of systemic and pulmonary venous anomalies in heterotaxy syndrome
23. Safety and efficacy of genicular artery embolization in patients with moderate knee pain

Collaborative projects

Ongoing

1. DE-CMR compared with FDG-PET for assessment of viability and prediction of functional improvement in patients with CAD and LV dysfunction, Cardiology
2. Impact of bariatric surgery in reduction of cardiovascular risk in morbid obesity 2017, Surgery
3. Preparation and study of radiochromic film as radiation dosimeter for medical applications, Radiation Physics Role of 68 Ga-DOTANOC PET/CT in cardiac sarcoidosis; comparison with cardiac MR, Nuclear Medicine

Completed

1. Role of cardiac magnetic resonance imaging in identification of myocardial fibrosis and wall morphology in patients of nonischemic dilated cardiomyopathy, Cardiology

Stem Cell Facility

Funded Projects

Ongoing

1. Bio fabrication of skin tissue substitutes using functionalized materials, Sujata Mohanty, DST, 2 years, 2018-2020, Rs 15 lakhs
2. DBT-Centre of Excellence for Stem Cell Research: Basic and Translational (Phase-II), Sujata Mohanty, DBT, 3 years, 2017-2020, Rs 298 lakhs
3. Development of a Carrier Dressing Capable of Supporting the Transfer of Melanocytes and Keratinocytes onto an in vitro Wound Bed Model, Sujata Mohanty, DBT, 3 years, 2017-2020, Rs 59.37 lakhs
4. Strategies to enhance stem cell delivery to the retina using iron oxide nanoparticle, Sujata Mohanty, DBT, 3 years, 2018-2021, Rs 82 lakhs
5. Immunomodulatory property of Human Mesenchymal Stem Cell: Assessment of their therapeutic potential in GvHD model, Sujata Mohanty, DST, 3 years, 2018-2021, Rs 42 lakhs
6. Understanding the therapeutic role of adult stem cell derived exosome in combating virus induced neurodegenerative disease, Sujata Mohanty, DBT, 3 years, 2018-2021, Rs 22 lakhs
7. Fabrication of Biocompatible Scaffolds for Delivery of Stem Cells in Myocardial Infarct Model: In Search of an Ideal Cardiac Patch, Sujata Mohanty, NER-DBT, 3 years, 2018-2021, Rs 28 lakhs
8. Comparing the vascularization potential of MSCs and MAPCs in monoculture and coculture systems with human OECs under normoxia and hypoxia, Sujata Mohanty, DBT, 3 years, 2018-2021, Rs 46.26 lakhs
9. Comparing the vascularization potential of MSCs and MAPCs in monoculture and coculture systems with human OECs under normoxia and hypoxia, Sujata Mohanty, AIIMS, 3 years, 2018-2021, Rs 5 lakhs

Completed

1. Targeting Telomerase Reverse Transcriptase (TERT) gene to immortalize Peripheral Blood Mononuclear Cells of patients with coronary artery disease, Sujata Mohanty, ICMR, 3 years, 2014-2017, Rs 56 lakhs
2. SOPs to Study Very Small Embryonic-Like Stem cells (VSELs) in Various Adult Tissues, Sujata Mohanty, ICMR, 1 year, 2017-2018, Rs 4 lakhs
3. 3D Bioprinting for patient-specific joint tissue constructs and in vitro model system Sujata Mohanty, DST, 3 years, 2017-2020, Rs 30 lakhs

Departmental projects

Ongoing

1. A comparative study for evaluation of outcome of end to end tendon repair with or without amniotic membrane
2. Autologous non-cultured dermal cell suspension transplantation for correction of volume loss
3. Comparative evaluation of cellular responses and osteogenic potential of Undifferentiated mesenchymal stem cells induced by calcium-silicate based cements—A histochemical study
4. Detection and quantification of circulating tumour cells in oral cavity squamous cell carcinoma
5. Evaluation of outcomes of end to end nerve repair with or without amniotic membrane—A comparative study
6. Imaging and molecular characterization of differentiated thyroid cancer
7. Immunomodulatory potential of tissue specific human MSC through HLA-G and other soluble factors
8. In vitro and in vivo stabilization of endothelial tubes from HUVEC micro tissues using human bone marrow derived hMSCs and its application in bone tissue engineering
9. In-vitro studies to explore strategies for extended utilization of donor corneal tissues by harnessing their full clinical potential
10. Optical characterization of breast cancer
11. Role of micro RNA as biomarker in hepato cellular carcinoma
12. To evaluate the role of tissue specific MSC derived exosomes in drug induced liver injury model

Completed

1. A comparative study to assess the efficacy, viability and composition of various cell populations of Extracted Hair Follicle Outer Root Sheath Cell Suspensions (EHF ORS CS) prepared using a single enzyme (trypsin) and multiple enzymes (trypsin, collagenase and dispase) for transplantation in vitiligo
2. T cells subsets and their functions in aplastic anemia
3. To explore differentiation potential of bone marrow derived Mesenchymal stem cells into functional cardiomyocytes
4. Molecular Characterization of Steve Johnson Syndrome; its Ocular Sequelae
5. Role of stem cell therapy to decrease pacing requirements in complete heart block

Collaborative projects

Ongoing

1. A double-blind randomized trial of transplantation of cultured melanocytes from outer root sheath of plucked hair follicles vs cultured melanocytes from epidermis, Dermatology
2. A multi-center, randomized, double-blind, placebo-controlled trial to evaluate the effects of intra erythrocytedexamethasone sodium phosphate on neurological symptoms in patients with Ataxia Telanectasia, Paediatric Neurology
3. Assessment of the effect of various storage media on viability, proliferative ability and differentiation potential of human periodontal ligament stem cells (hpdlsCs): An in-vitro study, CDER
4. Comparative evaluation of efficacy of conjunctival stem cell transplantation with cultivated oral mucosal epithelial transplantation in patients with bilateral cicatrizing ocular surface diseases (i.e. Stevens Johnson syndrome and Chemical burns), RP Centre
5. Evaluations of efficacy of therapeutic angiogenesis induced by intramuscular autologous platelet rich plasma in non revasculariable critical limb ischemia due to peripheral artery diseases, Cardiac Radiology
6. IUSSTF Reducing cancer mortality through cancer prevention, Gastroenterology
7. Solid tumor targeting using homing peptide ans plasmonic photothermal technique, Surgery
8. Study of paracrine mechanism of autologous stem cell transplantation in stroke using bifunctional markers, Neurology
9. To study efficacy of amniotic membrane as an alternative wound dressing in patients with post traumatic raw area admitted in trauma surgery unit, Trauma Surgery
10. Utilization of intra arterial injections of autologous bone-marrow derived mononuclear cells for treatment of spinal injury, Cardiac Radiology

**Completed**

1. Comparison of autologous cultured limbal stem cells on amniotic membrane transplant versus limbal lenticule transplantation alone in the management total limbal stem cell deficiency due to ocular burns: A randomized controlled clinical trial, RP Centre
2. Evaluation of autologous bone marrow derived stem cells in dry age related macular degeneration, RP Centre

**Blood Transfusion Services**

**Collaborative projects**

**Ongoing**

1. Comparing the Vascularising potential of MSCs and MAPCs in monoculture and coculture systems with human OECs under normoxia and hypoxia, Stem Cell Facility
2. CRISPR-mediated technologies for the development of new Therapeutics and Diagnostics, Biochemistry
3. Effect of Hyperglycaemia on macrophage function in pathophysiology of pulmonary TB, Biochemistry
4. Evaluation of Mesenchymal Stem Cell derived exosomes on neutrophil—Induced tissue damage in the animal models of liver and heart disease, Stem Cell Facility
5. Host-Parasite interaction in Malaria, Biochemistry
6. Regulation of HIV reservoirs through autophagy, Biochemistry
7. Study the potential role of HLA-G mediated immunomodulation by tissue specific human Mesenchymal Stem Cells, Stem Cell Facility
8. Targeting Telomerase Reverse Transcriptase (TERT) gene to immortalize Peripheral Blood Mononuclear Cells of patients with coronary artery disease, Stem Cell Facility

**Completed**

1. Generation and Characterisation of molecularly cloned HIV-1 Env Psedoviruses from Indian HIV-1 infected children, Biochemistry

**PUBLICATIONS**

**Cardiology**

Journals: 80  Chapters in Books: 24  Books: 2

**Cardiothoracic and Vascular Surgery**

Journals: 22  Chapters in Books: 10

**Cardiac Anaesthesiology**

Journals: 29  Abstracts: 3  Chapters in books: 3  Book: 1

**Cardiac Biochemistry**

Journals: 12

**Cardiac Nuclear Medicine**

Journals: 2  Abstracts: 14  Chapters in book: 1

**Cardiac Pathology**

Journals: 15  Chapters in book: 1
Cardiovascular Radiology and Endovascular Interventions
Journals: 14    Chapters in books: 9

Stem Cell Facility
Journals: 13

Blood Transfusion Services
Journals: 2

PATIENT CARE

Cardiology

Total numbers

<table>
<thead>
<tr>
<th>New OPD cases</th>
<th>38,220</th>
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<tbody>
<tr>
<td>Old Cardiology Cases</td>
<td>1,10,963</td>
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Patient Services

- TMT: 2,828
- Holter: 3,100
- Echocardiography: 34,158
- ECG: 30,903
- ABP: 96
- TEE: 55
- HUTT: 198

Cath Lab Services

- CART: 2,063
- Cath: 819
- Balloon Dilatation: 93
- PTMC: 236
- PDA: 114
- ASD Device: 76
- VSD Device: 15
- PTCA: 1,165
- Pacemakers/PGR: 390 + 142
- ICD: 47
- CRT: 53
- RFA: 92
- CARTO: 12
- DSA: 305
- Coil embolization: 128
- BAS: 75
- EM Biopsy: 39

Cardiothoracic Vascular Surgery

Workload

At the Department of CTVS, one of the largest numbers of adult, aortic and paediatric cardiac surgery for congenital heart defects were performed in the country. Between 1 April 2018 and 31 March 2019, 3,961 surgeries were performed in the department. Along with Department of Cardiology, 38,220 new cases and 1,69,056 old cases were seen in the OPD.

The facilities and infrastructure

a. Operating Rooms (OR's): There are 8 fully functional operating rooms in the Department of CTVS. Each of one of these is equipped with all the necessary equipment required for performing the entire range of adult, aortic and paediatric cardiac surgery. These include state of the art monitoring system and anesthesia station, NIRS, BIS, EEG, 3-D echocardiography, cell saver, CPB machines, vacuum assisted venous drainage, centrifugal pump, bronchoscope, and intra-operative neuromonitoring.

b. ICU Beds: The department has 4 ICUs (54 beds) fully equipped with all advanced facilities for postoperative cardiovascular surgical care.
   i. ICU-A: 16 Beds
   ii. ICU-B: 18 Beds
   iii. Neonatal ICU: 8 Beds
   iv. CT-5 ICU: 12 Beds
However, the HDU also has 12 additional beds. Out of these, 20 beds are specifically earmarked for children. Besides this, the main ICU and HDU comprising of the remaining 46 beds (54+12−20=46) are fully equipped and all facilities for cardiac intensive care are available.

c. **General Beds:** The department has 80 general beds:
   i. CT-4 Ward: 44 Beds
   ii. CT-5 Ward: 24 Beds
   iii. CT-6 Ward: 12 Beds

d. **CN Tower (Private Ward): Thirty-two (32) beds in private/paying ward,** shared with Department of Cardiology

e. **Homograft Valve Bank:** The department runs the most successful valve bank of the country. This ensures adequate supply of homografts to manage complex paediatric cardiac surgical problems

f. **Supportive services:** Five cardiac catheterization labs including, advanced CT scan, MRI, nuclear medicine, ultrasound, and echocardiography lab, state of the art blood bank, and laboratory services

### Cardiac Anesthesiology

1. Advanced monitoring facilities (TEE, TTE, NIRS, NICO monitoring) for management of routine, emergency and high risk cardiac surgical patients belongs to all spectrum
2. Specialized cognitative rehabilitation programme for heart failure, heart transplant and LVAD patients
3. Routine stress management programme both for pre and post operative patients
4. Different community programme by the faculties
5. Team member of heart failure treatment like heart transplant and LVAD
6. Transesophageal Echocardiography
7. Community service—Charitable health camps and health education
8. Special involvement with anesthesia for complex congenital heart surgery and OPCAB

### Cardiac Biochemistry

The Cardiac Biochemistry laboratory caters to outpatients and inpatients of cardiothoracic center and for some of the diagnostic tests to patients from other departments as well as from other hospitals. This year we introduced the testing of renin and aldosterone.

**Tests done in Centralised Lab CNC in the year of April 2018-March 2019.**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Description</th>
<th>No. of Tests (Ward)</th>
<th>No. of Tests (OPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Glucose</td>
<td>31,433</td>
<td>46,840</td>
</tr>
<tr>
<td>2.</td>
<td>Urea</td>
<td>57,478</td>
<td>45,810</td>
</tr>
<tr>
<td>3.</td>
<td>Creatinine</td>
<td>57,478</td>
<td>45,750</td>
</tr>
<tr>
<td>4.</td>
<td>Calcium</td>
<td>56,120</td>
<td>44,105</td>
</tr>
<tr>
<td>5.</td>
<td>Phosphorous</td>
<td>56,130</td>
<td>43,990</td>
</tr>
<tr>
<td>6.</td>
<td>Uric Acid</td>
<td>57,115</td>
<td>44,220</td>
</tr>
<tr>
<td>7.</td>
<td>Sodium</td>
<td>57,300</td>
<td>44,550</td>
</tr>
<tr>
<td>8.</td>
<td>Potassium</td>
<td>67,128</td>
<td>44,840</td>
</tr>
<tr>
<td>9.</td>
<td>Bilirubin</td>
<td>56,390</td>
<td>45,450</td>
</tr>
<tr>
<td>10.</td>
<td>Direct Bilirubin</td>
<td>55,540</td>
<td>45,340</td>
</tr>
<tr>
<td>11.</td>
<td>Total Protein</td>
<td>58,160</td>
<td>45,110</td>
</tr>
<tr>
<td>12.</td>
<td>Albumin</td>
<td>56,890</td>
<td>45,110</td>
</tr>
<tr>
<td>13.</td>
<td>AST</td>
<td>60,140</td>
<td>45,220</td>
</tr>
<tr>
<td>14.</td>
<td>ALT</td>
<td>60,140</td>
<td>44,740</td>
</tr>
<tr>
<td>15.</td>
<td>ALP</td>
<td>58,140</td>
<td>44,700</td>
</tr>
<tr>
<td>16.</td>
<td>Cholestrol</td>
<td>36,180</td>
<td>7,115</td>
</tr>
<tr>
<td>17.</td>
<td>Amylase</td>
<td>26,110</td>
<td>7,101</td>
</tr>
<tr>
<td>18.</td>
<td>Cyclosporin</td>
<td>215</td>
<td>NA</td>
</tr>
<tr>
<td>19.</td>
<td>Tacrolimus</td>
<td>476</td>
<td>NA</td>
</tr>
</tbody>
</table>
### Haematology and coagulation

<table>
<thead>
<tr>
<th>Test</th>
<th>Normal Value</th>
<th>Abnormal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hb, TLC, DLC, Platelets, ESR</td>
<td>60,706</td>
<td>35,696</td>
</tr>
<tr>
<td>PT</td>
<td>13,000</td>
<td>57,968</td>
</tr>
<tr>
<td>APTT</td>
<td>1,250</td>
<td>6,586</td>
</tr>
</tbody>
</table>

### Hormones

<table>
<thead>
<tr>
<th>Test</th>
<th>Normal Value</th>
<th>Abnormal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>T3</td>
<td>12,700</td>
<td>7,000</td>
</tr>
<tr>
<td>T4</td>
<td>12,700</td>
<td>7,000</td>
</tr>
<tr>
<td>TSH</td>
<td>13,700</td>
<td>9,000</td>
</tr>
<tr>
<td>Prolactin</td>
<td>1,660</td>
<td>1,170</td>
</tr>
<tr>
<td>Cortisol</td>
<td>1,690</td>
<td>1,700</td>
</tr>
<tr>
<td>Vitamin B12</td>
<td>8,200</td>
<td>3,700</td>
</tr>
<tr>
<td>Folate</td>
<td>2,500</td>
<td>2,200</td>
</tr>
<tr>
<td>Homocysteine</td>
<td>1,700</td>
<td>1,200</td>
</tr>
<tr>
<td>Ferritin</td>
<td>1,350</td>
<td>200</td>
</tr>
<tr>
<td>Iron</td>
<td>1,350</td>
<td>200</td>
</tr>
<tr>
<td>UIBC</td>
<td>1,350</td>
<td>200</td>
</tr>
</tbody>
</table>

### Catecholamines/VMA

<table>
<thead>
<tr>
<th>Test</th>
<th>Normal Value</th>
<th>Abnormal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adrenaline/Nor adrenaline</td>
<td>370</td>
<td>120</td>
</tr>
<tr>
<td>VMA</td>
<td>370</td>
<td>120</td>
</tr>
</tbody>
</table>

### PTH/Vitamin D

<table>
<thead>
<tr>
<th>Test</th>
<th>Normal Value</th>
<th>Abnormal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin D</td>
<td>3,320</td>
<td>1,000</td>
</tr>
<tr>
<td>PTH</td>
<td>50</td>
<td>0</td>
</tr>
</tbody>
</table>

### Lipids/Cardiac Enzymes/HbA1c

<table>
<thead>
<tr>
<th>Test</th>
<th>Normal Value</th>
<th>Abnormal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lipid Profile</td>
<td>46,300</td>
<td>51,000</td>
</tr>
<tr>
<td>CK-NAC</td>
<td>13,000</td>
<td>3,990</td>
</tr>
<tr>
<td>CK-MB</td>
<td>3,700</td>
<td>2,450</td>
</tr>
<tr>
<td>LDH</td>
<td>10,200</td>
<td>9,940</td>
</tr>
<tr>
<td>ASLO</td>
<td>1,230</td>
<td>3,670</td>
</tr>
<tr>
<td>CRP</td>
<td>34,500</td>
<td>26,790</td>
</tr>
<tr>
<td>Digoxin</td>
<td>470</td>
<td>302</td>
</tr>
</tbody>
</table>

### Cardiac Nuclear Medicine

Nuclear Cardiology Unit in CNC is equipped with a dual head SPECT-CT Gamma Camera. The nuclear cardiology unit caters to patients referred for cardiac studies from CN center and other departments of the hospital.

The department routinely performs myocardial perfusion SPECT imaging which is an integral investigation in the diagnosis and management of patients with coronary artery disease. We also perform cardiac PET imaging with PET perfusion tracer N-13 NH3 and metabolic tracer F-18 FDG for assessment of myocardial viability. New diagnostic imaging for non CAD indications are now performed like Gallium-68 DOTANOC for cardiac sarcoidosis, cardiac infective and inflammatory pathologies. We have also assessed the feasibility of F-18 FDOPA for evaluation of cardiac sympathetic innervations. The department also performs radionuclide ventriculography for assessment of left ventricular function in CAD patients referred from the center and from IRCH for cardiac evaluation in patients receiving chemotherapy.

### Total number of patients investigated in Nuclear Cardiology

- Myocardial perfusion study: 1,859
- RNV study: 562
- Cardiac PET: 156
- Misc. (V/Q scan, 1st pass): 147
- Total number of studies performed: 2,724

### Cardiac Pathology

<table>
<thead>
<tr>
<th>Specimens</th>
<th>Routine</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>460</td>
<td>176</td>
</tr>
</tbody>
</table>
Others

Immunohistochemistry: 48 slides H&E stain: 327 slides
Special stains: 107 slides
Manual processing of post-transplant biopsies: 44 cases
Cutting of blocks (unstained sections): 498 slides

Cardiovascular Radiology and Endovascular Interventions

<table>
<thead>
<tr>
<th>Facility</th>
<th>Number of procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT</td>
<td>5,184 (CT head - 262, Chest - 198, Abdominal - 4,724)</td>
</tr>
<tr>
<td>MRI</td>
<td>759 DSA 663</td>
</tr>
<tr>
<td>Doppler and Ultrasound</td>
<td>7,511 Catheter angiographies 4,662</td>
</tr>
</tbody>
</table>

Stem Cell Facility

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Service Provided</th>
<th>Number of samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Stem Cell Isolation from Bone Marrow</td>
<td>41</td>
</tr>
<tr>
<td>2.</td>
<td>Stem Cell Isolation from Adipose Tissue</td>
<td>17</td>
</tr>
<tr>
<td>3.</td>
<td>Stem Cell Isolation from Wharton’s Jelly</td>
<td>23</td>
</tr>
<tr>
<td>4.</td>
<td>Stem Cell Isolation from Dental Pulp</td>
<td>11</td>
</tr>
<tr>
<td>5.</td>
<td>Cryopreservation of Apheresis sample</td>
<td>17</td>
</tr>
<tr>
<td>6.</td>
<td>Umbilical cord blood cryopreservation</td>
<td>4</td>
</tr>
<tr>
<td>7.</td>
<td>Cultured Oral Mucosa Epithelial Transplantation</td>
<td>2</td>
</tr>
<tr>
<td>8.</td>
<td>Culture Limbal Epithelial Transplant</td>
<td>8</td>
</tr>
<tr>
<td>9.</td>
<td>Amniotic Membrane preparation for grafting</td>
<td>30 batches</td>
</tr>
<tr>
<td>10.</td>
<td>Hair Follicle stem cells</td>
<td>22</td>
</tr>
<tr>
<td>11.</td>
<td>Viability of stem cells (pre and post transplantation/ infusion)</td>
<td>21</td>
</tr>
<tr>
<td>12.</td>
<td>Stem Cell Enumeration (CD34+ count)</td>
<td>21</td>
</tr>
</tbody>
</table>

Blood Transfusion Services

<table>
<thead>
<tr>
<th>Blood</th>
<th>Units collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement donors</td>
<td>12,552</td>
</tr>
<tr>
<td>Voluntary donors in the department</td>
<td>359</td>
</tr>
<tr>
<td>Voluntary through blood mobile</td>
<td>590</td>
</tr>
<tr>
<td>Family voluntary donors</td>
<td>8,365</td>
</tr>
<tr>
<td>Blood received from IRCS</td>
<td>52</td>
</tr>
<tr>
<td>Blood received from Hospital Blood Bank, AIIMS</td>
<td>345</td>
</tr>
<tr>
<td>Blood received from JPNATC, AIIMS</td>
<td>152</td>
</tr>
<tr>
<td>Blood received from other hospital</td>
<td>99</td>
</tr>
<tr>
<td>Total no. of blood units collected</td>
<td>22,514</td>
</tr>
</tbody>
</table>

Blood Units Issued

<table>
<thead>
<tr>
<th>Blood</th>
<th>Units issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood units issued to CTVS/NS</td>
<td>28,119</td>
</tr>
<tr>
<td>Blood issued to Hospital Blood Bank, AIIMS</td>
<td>713</td>
</tr>
<tr>
<td>Blood issued to JPNATC</td>
<td>180</td>
</tr>
<tr>
<td>Blood issued to other hospitals</td>
<td>1,020</td>
</tr>
<tr>
<td>HIV/HBsAg/HCV reactive units discard</td>
<td>521</td>
</tr>
<tr>
<td>Total No. of blood units issued</td>
<td>30,032</td>
</tr>
</tbody>
</table>

Lab Procedures

<table>
<thead>
<tr>
<th>Lab Procedures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total no. of Blood grouping (ABO)</td>
<td>93,188</td>
</tr>
<tr>
<td>Total no. of Blood grouping (RH)</td>
<td>70,674</td>
</tr>
<tr>
<td>Total no. of Cross matching done</td>
<td>1,39,708</td>
</tr>
</tbody>
</table>

**Infectious Markers**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV</td>
<td>25,824</td>
</tr>
<tr>
<td>HBV</td>
<td>25,968</td>
</tr>
<tr>
<td>HCV</td>
<td>25,840</td>
</tr>
<tr>
<td>VDRL</td>
<td>24,250</td>
</tr>
<tr>
<td>MP</td>
<td>24,250</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,26,132</strong></td>
</tr>
</tbody>
</table>

**No. of Blood Components Issued**

<table>
<thead>
<tr>
<th>Component</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh Frozen Plasma (FFP)</td>
<td>20,912</td>
</tr>
<tr>
<td>Platelet Concentrate</td>
<td>15,879</td>
</tr>
<tr>
<td>Cryoprecipitate</td>
<td>2,008</td>
</tr>
<tr>
<td>Packed Red Cells</td>
<td>30,032</td>
</tr>
<tr>
<td>Single Donor Plateletpheresis</td>
<td>34</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68,865</strong></td>
</tr>
</tbody>
</table>

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Cardiology**

**Professor VK Bahl** received Excellence in Cardiology by TV News X Health Awards, 2018; PL Wahi Oration by International Society of Heart research (2018); Life Time Achievement Award CSI, Delhi Branch, (2018); AK Thakur Memorial Oration, CSI, Bihar; Course director, India Live; Chair, India Live Session Euro PCR 2018, 22-25 May 2018, France.

**Professor Anita Saxena** was President of National Rheumatic Heart Consortium.

**Professor SS Kothari** was member of Ethics Sub-Committee of Medical Council of India (MCI); Member (Expert), Drug Controller, Government of India (DCGI), 2018-2019.

**Professor Balram Bhargava**: DG, ICMR; Secretary, DHR; President, SLIM (Society for Less Investigative Medicine).

**Professor KC Goswami** was President, Cardiological Society of India; Chairman of Scientific Committee of Annual Conference of CSI 2018, which was held at Mumbai. The conference was one of the biggest international cardiology conferences of South East Asia and Asia Pacific Region and was a big success. It was attended by more than 4,000 delegates across the globe.

**Professor Sandeep Seth** was Editor in Chief, JPCS.

**Professor Sundeep Mishra** was member of Board of Trustees SCAI; Member International adaptation of SCAI Clinical Guidance Documents Sub-group; International Editor, Sri Lanka Journal of Cardiology; India Session Coordinator, K Imaging, Korea; India Session Coordinator, IC MED, Turkey.

**Professor Rakesh Yadav** was Treasurer, CSI Delhi Branch; Editor, Indian Heart Journal.

**Professor G Karthikeyan** was Editor-in-Chief of *Heart Asia* which is one of the three heart journals published by the BMJ Group; Member of the Rheumatic Heart Disease (RHD) Expert Group of the Global Burden of Disease Study, coordinated by the Institute of Health Metrics and Evaluation (IHME); Board member of Rheumatic Heart Disease, Evidence, Advocacy, Communication, Hope (RhEACH) which is an international collaboration with a mandate to identify, describe and disseminate solutions for this neglected disease and to reduce the burden on vulnerable populations around the world; Member of the Health Technology Assessment Board of the Government of India.

**Professor Ambuj Roy**: American Heart Association certified BLS/ACLS Instructor; Collaborator, Global Burden of Disease; Member of the GBD India CVD Expert Group; Member, Expert Committee, MOHFW for National CVD Programme-
Professor S Ramakrishnan was Assistant Editor of Annals of Pediatric Cardiology; Treasurer of National Rheumatic Heart Consortium; Associate editor of JPCS; Secretary, SLIM.

Dr Saurabh K Gupta was Treasurer, PCSI; received Young Investigator Award PCSI 2018; was Runner up IHJ-AV Gandhi Award for Excellence in Cardiology Award 2018; DP Basu Award in CSI 2018.

Cardiothoracic and Vascular Surgery

Professor SK Choudhary was nominated as Visiting professor by All India Institute of Medical Sciences, Rishikesh; Recipient of Best Reviewer Award for the year 2018-2019, instituted by Indian Journal of Thoracic and Cardiovascular Surgery; Nominated as Chairperson of Experts groups for development of Standard Treatment Workflows (STWs) in CTVS, Government of India, Ministry of Health and Family Welfare (Department of Health Research), New Delhi; Nominated as Section Editor ‘Aorta’ for Indian Journal of Thoracic and Cardiovascular Surgery; Nominated as expert to the selection committee for selection and assessment promotion of faculty members in CTVS on 4 May 2018 at SGPGIMS, Lucknow; Nominated as expert to the selection committee for selection of MS, Associate Professor, Assistant Professor and Medical Officer on 17 July 2018 at Rajeev Gandhi Super Specialty Hospital, New Delhi; Nominated as expert to the selection committee for selection of Associate Professor, Assistant Professor on 2 August 2018 at Rajeev Gandhi Super Specialty Hospital, New Delhi; Nominated as an external examiner for MCh (CTVS) held on 18 August 2018 at LPS Institute of Cardiology, GSVM Medical College, Kanpur; Nominated as expert to the Standing Selection Committee for the post of Assistant Professor in CTVS on 26 October 2018 at IGMS, Patna; Nominated as Chairperson to conduct inspection at PGIMER, Chandigarh for Heart and Lung Transplantation facilities under Transplantation of Human Organs Act, 1995 by the DGHS, New Delhi on 26 November 2018; Nominated as Chairperson to conduct inspection at Dr Ram Manohar Lohia Hospital, New Delhi for Heart Transplantation facilities under Transplantation of Human Organs Act, 1995 by the DGHS, New Delhi on 14 December 2018; Nominated as an external examiner for MCh (CTVS) from 11-12 January 2019 at Institute of Medicine, Tribhuvan University, Kathmandu, Nepal; Nominated as Expert to the Standing Selection Committee for the post of Assistant Professor, Associate Professor in CTVS on 23 January 2019 at AIIMS, Rishikesh; Nominated as Chairperson of Experts groups for development of Standard Treatment Workflows (STWs) in CTVS, Government of India, Ministry of Health and Family Welfare (Department of Health Research), New Delhi; Nominated as Visiting Professor, AIIMS, Rishikesh; Nominated as Expert to the selection committee for the post of Associate Professor, and Professor in CTVS on 14 February 2019 at BHU, Varanasi; Nominated as Expert to the Standing Selection Committee for the post of Assistant Professor and Associate Professor in CTVS on 18 February at IGIMS, Patna; Nominated in Specialists Board in specialty of Cardiothoracic Surgery, National Board of Examinations.

Professor Sachin Talwar was nominated as the external examiner for DNB (CTVS) by the National Board of Examinations at National Heart Institute, New Delhi, 18-20 April 2018; Nominated as Expert to the standing selection committee for the post of Assistant Professor and Assessment Promotion Scheme to the post of Professors, PGI, Chandigarh for selection 18 June 2018; External examiner for MCh (CTVS) at Dayanand Medical College, Ludhiana, 23 September 2018; Nominated by the National Board of Examinations as an external expert to inspect the physical infrastructure of Dr Ramesh Cardiac and Multispecialty Hospital, Guntur, Andhra Pradesh.


Cardiac Anesthesiology

Professor Neeti Makhija chaired the session on the State of the Art: Evaluation of Aortic Valve and Aorta which included the following lectures (From 3:00 PM-5:15 PM) in the 7th Comprehensive Preoperative Echo Workshop from 1 to 2 December 2018 at Gurgaon: Assessing Aortic Stenosis—When AVR? Aortic Regurgitation: Pitfalls in Assessment, State of the Art Imaging Evaluation of Acute Aortic Syndrome, Prosthetic Heart Valve Evaluation; Mentored the delegates in: WET LAB: Hands-on Porcine Heart Dissection with Echo Anatomic Correlation in the workshop and also attended the other sessions (5.30 PM-7.15 PM) in the 7th Comprehensive Preoperative Echo Workshop from 1 to 2 December, 2018 at Gurgaon; Chaired the session on Paediatric Imaging on 2 March 2019 in the 13th Annual Echocardiography Workshop at PGIMER, Chandigarh that consisted of the following lectures: Echo assessment of patient with TGA: Decision making for regressed, LV: Will this ventricle take up the stress? Preop ECHO in patients with severe PAH—What to
look for—Can we avoid cath study; Evaluation of Ventricular septal Defects and AV canal defect; Chaired a session on Recent advances on Echocardiography on 3 March 2019 that included the following lectures: 3D imaging —Basics in 3D TEE, TEE assessment of ventricular assist devices, Role of strain imaging in TEE; Chaired the session on ECMO and Beyond that included the following lectures: ECMO management in the ICU, Role of echocardiography in ECMO, ECLS Ethical Dilemas.

Professor Poonam Malhotra Kapoor has become the President of IACTA (non elected); Continuing as the President of SCA-Delhi and NCR Branch (non elected); Continuing as Founding Secretary and Chairman Academics of The Simulation Society; Dr Poonam Malhotra has become the Past President of ECMO Society of India (non elected); Editor-In-Chief, Journal of Cardiac Critical Care, 1st and 2nd issues of JCCC 2018; 7 national conferences organized as PG Assembly and CME; Examiner: Was Examiner for FIACTA, FTTE examination conducted by IACTA at Bangalore; Content provider for online Fellowship in Cardiac Critical Care (FICCC), Fellowship in Advanced Echocardiography (FIAE) and Fellowship in Basic Echocardiography (FIBE) online Examination, conducted by The Simulation Society (TSS) and Journal of Cardiac Critical Care (JCCC); The Exams were online conducted by Tata Consultancy Services. Chaired a session on MICS, SMICTSI 3rd Annual Conference of SMICTSI, 9 September 2018, Bengaluru

Professor Arindam Choudhury was re-elected as the North Zone representative of National Executive Committee of All India Difficult Airway Association (AIDAA) during National Airway Conference 2018 of AIDAA at Bishwa Bangla Convention center, Salt Lake, Kolkata.

Cardiac Biochemistry
Professor Lakshmy Ramakrishnan was member of Technical Advisory Group constituted by Ministry of Health and Family Welfare for conducting Comprehensive National Nutrition Survey (CNNS); Expert member of Project Review Committee of Indian Council of Medical Research in the area of Obesity and Metabolic Syndrome; Also an expert member of ICMR in the area of Non Communicable Diseases; Expert member for the Task Force Project on ICMR-India Diabetes [INDIAB] study for estimating prevalence of Diabetes and Pre-Diabetes in different states of India; Member of CKD Project Monitoring Technical Advisory Committee constituted by Health and Family Welfare Ministry, Government of AP; Advisor for center of advanced research of ICMR on mechanism leading to preeclampsia in IRSHA, Pune; National editor, J of Practice of Cardiovascular Sciences; Member of subcommittee for review of call for proposals in the area of Vitamin D by DBT; Reviewed projects for imprint 2 scheme under DST; Member of technical specification committee for purchase of equipment in Biochemistry Department, RML.

Cardiac Nuclear Medicine
Professor Chetan D Patel was external expert in Technical Specification Committee for purchase of solid state detector SPECT camera at PGIMER, Chandigarh; Reviewer for national and international academic journals; Member of Executive Committee, Society of Nuclear Medicine, India; Member of Executive Committee, Association of Nuclear Medicine Physicians of India; Member of Executive Committee, Nuclear Cardiological Society of India; Reviewed thesis of MD Nuclear Medicine students, Amrita Institute of Medical Sciences, Kochi; External Examiner for MD Nuclear Medicine Exam, Amrita Institute of Medical Sciences, Kochi; Internal Examiner for MD Nuclear Medicine and MSc Nuclear Medicine Technology Practical Examinations held in May 2017; Reviewer of Adhoc Extramural Proposal of ICMR; Member Store Purchase Committee of Center for Integrative Medicine and Research (CIMR); Chairman, Selection Committee for recruitments in research projects at CIMR; Member of Selection Committee for recruitment of core staff at CIMR under COE Scheme, AYUSH; DM cardiology students: Dr Rondeep Kumar Nath Sivam and Dr Synrang Batngen Warjri, NEIGRIHMS, Shillong-One month experience in Nuclear Cardiology, AIIMS.

Cardiac Pathology
Dr Sudheer A was Chairperson, Pulmocrit AIIMS 2019, 2-3 March 2019, AIIMS, New Delhi; Chairperson and judge for poster session, CME: Paediatric pathology: Current trends and perspective, 16 March 2019, SSPH and PGTI, Noida

Cardiovascular Radiology and Endovascular Interventions
Professor Sanjiv Sharma was external examiner for the practical examinations of MD (Radio-Diagnosis), 30 June 2018, IGMC, Shimla; Expert for the Standing Senior Selection Committee of SCTIMS, 5 June 2018 Trivandrum; External expert for Senior Staff Selection Committee Meeting, 21 January 2019, Trivandrum; Chairperson, moderation of cases, CSI-NIC Conference - 2018, 11 May 2018, Hyderabad; Reviewer for many national and international radiology and cardiology journals.

Professor Gurpreet Singh Gulati was founding member, AIIMS, KALA SANGAM; Organizing Committee, AIIMS GOT TALENT. A first of its kind event for showcasing talent in performing arts among all cadres of AIIMS staff and students.
There were over 160 entries in various categories of music an dance, screening held through 2 auditions, and culminating in the finale on 27 January 2019; Reviewer for many national and international radiology and cardiology journals.

Professor Priya Jagia was reviewer for many national and international radiology and cardiology journals; Organizing Secretary of Annual Conference of Indian Association of Cardiac Imaging held at Medanta, Hospital, Gurgaon on 5-7 October 2017; National editor of Book on Cardiac Imaging, Advances in Clinical Cardiovascular Imaging, 1st Edition, edited by Dr HK Chopra, published by Jaypee Brothers.

Dr Sanjeev Kumar was reviewer for many national and international radiology and cardiology journals.

Residents

Dr Niraj Pandey was awarded Best Fellow in Interventional Radiology at the 21st Annual Conference of Indian Society of Vascular and Interventional Radiology at Goa (7-10 March 2019).

Stem Cell Facility

Professor Sujata Mohanty received 2nd Prize in Oral Presentation for the talk entitled Scaffolds for Skin Tissue Engineering by Amtoj Kaur at the First Institute Research Day (AIIMS) on 26 March 2019; 2nd Prize in Poster Presentation for the poster entitled Therapeutic role of stem cell derived exosomes in regenerative medicine: A cell free approach by Suchi Gupta, Baibaswata Nayak, Arup Banerjee, Sujata Mohanty at the First Institute Research Day (AIIMS) on 26 March 2019; was Nominated as Member of Institutional Committee for Stem Cell Research in National Institute of Immunology, New Delhi; Institute of Liver and Biliary Sciences, New Delhi; National Brain Research Centre, Manesar; THSTI, Faridabad; IIT, Indore; University of Delhi; CSIR-Institute of Genomics and Integrative Biology (IGIB); Indian Spinal Injuries Centre, New Delhi; Kavikrishna Lab IIT, Guwahati; Jamia Hamdard University, New Delhi; Nominated as Member of various International Bodies like International Society for Cellular Therapy (ISCT); International Society for Stem Cell Research (ISSCR); Society of Biological Chemists (SBC); Indian Immunology Society; Indian Society of Nanomedicine; Indian Science Congress Association; Stem Cell Research Foundation of India; The Cytometry Society, India; Indian Society for Translational Research; The Biomedical Engineering Society (BMES); Nominated as member of various Advisory Bodies like Core Committee for Stem Cell Donor Registry for Bone Marrow Transplant in India; Stem Cell Donor Registry, Ministry of Science and Family Welfare, Government of India; High Powered Committee by Ministry of Health and Family Welfare, Government of India; Brainstorming meeting on Biofabrication and 3D Bioprinting; Expert Group Committee - Limbal Stem Cell Transplantation - ICIMR, Centre for induced pluripotent Stem Cell Research and Application (CiRA)—For collaboration; Investigating team of CDSCO - Dendritic Cell Vaccine Scandal; Department of Biotechnology Task Force on Bioengineering; DBT Expert Committee for Indo-Australian Career Boosting Gold Fellowships (IACBG-Fellowships); Technology Development Board, DST; Internal Committee for Sexual Harassment Cell: Redressal of Complaints NII; Institute of Life Sciences, Bhubaneswar; National Centre for Cell Science; Nominated as Member of various Research Grant Review Committee Project Monitoring Committee (BIRAC), DBT; Biotechnology Career Advancement and Reorientation Programme for Women Scientists (BioCare), DBT; Biotechnology Industry Research Assistance Council (BIRAC); Indian Council of Medical Research, New Delhi; Department of Science and Technology, New Delhi; Council of Scientific and Industrial Research, New Delhi; Peer Review Committee - DRDO - Apollo Hospital, Hyderabad; SPARC (Scheme for Promotion of Academic and Research Collaboration), Ministry of Human Resource Development, Government of India at IIT, Kharagpur; As a member in various Editorial Committees Journal—Current Trends in Stem Cells and Regenerative Medicine (CTSR); Jacobs Journal of Bone Marrow and Stem Cell Research; Scientific Reports, Nature Publishing House; Stroke Research and Treatment; Indian Paediatrics; Cytotherapy; Translational Surgery; As a member in various Journal Review Committee Stem Cell Research Open Library (SCROL); Life Science; Journal of Biosciences; Biomedical Research Journal; Insights in Stem Cells; World Journal of Stem Cells; CEINCIA Publishing Group; Translational Surgery; Molecular and Cellular Biochemistry; Indian Heart Journal; BMC Ophthalomology; Regenerative Medicine; Bioscience Reports; Current Stem Cell Research and Therapy.

Blood Transfusion Services

Dr Anjali Hazarika enrolled for PhD since 2015; chaired scientific sessions on Paediatric Bone marrow Transplant during CME on Recent Advances in apheresis Technology in FMRI Fortis, Gurgaon, Haryana, 23 June 2018; Chaired scientific sessions during CME cum workshop on Advanced immunoahematology in Transfusion Medicine in ILBS, New Delhi, 15 and 16 February 2019; As a member of Core Committee of National Blood Cell, NHM, participated as resource person in Restructuring of Guidelines of Blood Storage Centres in India and also preparing the Model SOPs for BSUs in India; As External Technical Expert in procurement team of CMSS, participated in technical evaluation of Blood Bags for NACO; Resource person in Content development of Training Module for Strengthening of Blood Services and E-Raktkosh by NIB and NHM, 2 April 2018,17 April 2018, 20 June 2018, 18 July 2018, 30 August 2018, 16 October 2018 and 18 December 2018; Inhouse CME on ID-NAT testing in Blood Donors, 5 July 2018; Inhouse CME on MP-NAT testing in Blood Donors, 20 July 2018.
VISITING SCIENTISTS

Cardiac Thoracic Vascular Surgery
1. TK Susheel Kumar, Le Bonheur Childrens’ Hospital, Memphis, United States of America
2. Dr Klaus Goerlinger, TEM International GmbH, Munich, Germany
3. Dr Jignesh K Patel, Cedars-Sinai, Los Angeles, United States of America
4. Dr Peter Zilla, University of Cape Town, Cape Town, South Africa

Cardiovascular Radiology and Endovascular Interventions
1. Dr Erdenesuren, The Third State, Central Hospital, Ulaanbaatar, Mongolia
2. Dr Batgerel, The Third State, Central Hospital, Ulaanbaatar, Mongolia
3. Dr Delgermaa, The Third State, Central Hospital, Ulaanbaatar, Mongolia
4. Dr Tsogjavkhlan, The Third State, Central Hospital, Ulaanbaatar, Mongolia
5. Dr Reeta Kanauijya, Safdarjung Hospital, Delhi, India
6. Dr Puneet Garg, Safdarjung Hospital, Delhi, India
7. Dr Haruna Salihu Musa, Federal Medical Centre, Birnin Kebbi, Nigeria
8. Dr Kabiru Isyaku, Radiology Department Aminukano Teaching Hospital, Kano, Nigeria
9. Dr Soy Htay Hlaing, Defence Services General Hospital No. (1), Yangon, Mynmar
10. Dr Thet Zaw, Defence Services General Hospital No. (1), Yangon, Mynmar
11. Dr Htet Thura, Defence Services General Hospital No. (1), Yangon, Mynmar
12. Dr Htun Htun Naing, Defence Services General Hospital No. (1), Yangon, Mynmar
13. Dr Lwin Myo Thant, Defence Services General Hospital No. (1), Yangon, Mynmar
14. Dr Nay Htet, Defence Services General Hospital No. (1), Yangon, Mynmar
15. Dr Pawan Kumar, Maulana Azad Medical College, Delhi, India
16. Dr Raghvendra, Maulana Azad Medical College, Delhi, India
17. Dr Rajesh V, Maulana Azad Medical College, Delhi, India
18. Dr Malvika Gulati, Maulana Azad Medical College, Delhi, India
19. Dr Shureenchimeg Sainbayar, The Third State, Central Hospital, Ulaanbaatar, Mongolia
20. Dr Molor Erdene Demchigsuren, The Third State, Central Hospital, Ulaanbaatar, Mongolia
21. Dr Jargalsaikhan Sodnombaljir, The Third State, Central Hospital, Ulaanbaatar, Mongolia
22. Dr Kyaw Zaya, Defence Services General Hospital No. (1), Yangon, Mynmar
23. Dr Aung Zaw Htun, Defence Services General Hospital No. (1), Yangon, Mynmar
24. Mr Chan Nyein Lu, Defence Services General Hospital No. (1), Yangon, Mynmar
25. Mr Ye Nazing Tun, Defence Services General Hospital No. (1), Yangon, Mynmar
26. Mr Tunangkyaw, Defence Services General Hospital No. (1), Yangon, Mynmar
27. Mr Pyae Phyo Oo, Defence Services General Hospital No. (1), Yangon, Mynmar
28. Dr Athukoralalage Dilsha Praneeth Athukorala, Interventional Radiology National Hospital, Colombo, Sri Lanka
29. Dr Sathiayaseelan Maniheran, Interventional Radiology National Hospital, Colombo, Sri Lanka

Stem Cell Facility
1. Dr Dean Brenner, University of Michigan, Michigan, USA
2. Dr Justin Colacino, University of Michigan, Michigan, USA
3. Dr Jennifer Christen, University of Michigan, Michigan, USA
4. Dr Veena Sangwan, McGill University, Montreal, Canada
10.2. Centre for Dental Education and Research

Chief
OP Kharbanda
(Orthodontics and Dentofacial Deformities)

Professors
Ritu Duggal
(Orthodontics and Dentofacial Deformities)
Veena Jain
(Prosthodontics)
Ajoy Roychoudhury
(Oral and Maxillofacial Surgery)
Ongkila Bhutia
(Oral and Maxillofacial Surgery)

Additional Professors
Vijay Prakash Mathur
(Pedodontics)
Ajay Logani
(Endodontics and Conservative Dentistry)

Associate Professors
Dalim Kumar Baidya
(Anaesthesia)
Devlina Goswami
(Anaesthesia)

Assistant Professors
Amrita Chawla
(Endodontics and Conservative Dentistry)
Vijay Kumar
(Endodontics and Conservative Dentistry)
Rahul Yadav
(Oral and Maxillofacial Surgery)
Vilas Samrit
(Orthodontics and Dentofacial Deformities)
Prabhat Kumar Chaudhari
(Orthodontics and Dentofacial Deformities)
Kumaal Dhingra
(Periodontics)
Nitesh Tewari
(Pedodontics)
Kalpana Bansal
(Pedodontics)
Dheeraj Kumar Koli
(Prosthodontics)
Shalini Gupta
(Oral Medicine)
Vikender Singh
(Periodontics)
Deepika Mishra
(Oral Pathology and Microbiology)
Harsh Priya
(Public Health Dentistry)

HIGHLIGHTS

Orthodontics
It has provided quality orthodontic care to patients with malocclusion, dentofacial deformities and cleft lip and palate. We have initiated and now established a new combined clinic ‘Orthognathic Surgery’ for correcting facial deformities. It has provided leadership in the field at national and international levels. Dr Kharbanda was an invited speaker to twelve national and seven international events in the reporting year. In addition, the professional and academic expertise was also extended to various government/research organizations such as ICMR and Ministry of Health and Family Welfare and other institutions. Dr Kharbanda gave significant inputs to important international journals in the field of Orthodontics in the capacity of International Editorial Board/Peer Review Board.

Oral and Maxillofacial Surgery
It is involved in providing high quality surgical care in Trauma, Facial esthetics, temporomandibular joint, craniosynostosis etc. It has the distinction of being in the forefront of maxillofacial trauma treatment. In this context a two-day live surgical
workshop on orthognathic surgery was conducted in the month of November 2018. It involved lectures, live surgery and hands on skill training on 3D-printed facial models and live orthognathic surgery patient. Delegates from all over India attended this.

**Pedodontics and Preventive Dentistry**
It has shown leadership in the profession by organizing the inaugural national conference of Indian Society of Dental Traumatology and also first South Asian Association of Paediatric Dentistry Conference in New Delhi. It also conducted a National Symposium and three other scientific programs in different parts of the country. Our faculty and students have received best papers and academic honors and professional distinction in various national and international professional associations.

**Periodontics**
It deals with prevention, diagnosis and treatment of periodontal diseases. It provides optimum care to a large number of patients daily for periodontal treatment and also those referred from other departments. Various types of treatment procedures such as conventional non-surgical and surgical periodontal therapy, periodontal plastic surgery, soft and hard tissue regenerative procedures and diode LASER-assisted soft tissue excision and adjunctive pocket debridement procedures are being carried out in the division. The dental hygienists of the division are trained to provide basic periodontal care under specialist supervision.

**Oral Pathology and Microbiology**
Professor Randeep Guleria, Director, AIIMS, New Delhi with Professor OP Kharbanda, Chief, CDER, and AIIMS inaugurated the Oral Histopathology Lab, CDER on 17 January 2018. The Oral Histopathology laboratory at Room No. 503, fifth floor, CDER, AIIMS is now functional and is well-equipped to process and provide Histopathology and Cytopathology reporting on various hard and soft tissue pathologies of oral and maxillofacial region. This includes the reporting of potentially malignant disorders, benign and malignant lesions of oral cavity, odontogenic and maxillofacial cysts and bone tumors, tumors of oral cavity, tongue and salivary glands and other pathologies affecting oral and maxillofacial region.

**Public Health Dentistry**
Ministry of Health and Family Welfare has designated Centre for Dental Education and Research as the National Centre of Excellence for the implementation of National Oral Health Programme and it works under the guidance of the Chief and Director of the programme works for the execution of NOHP.

**EDUCATION**

**Orthodontics**

**Postgraduate**
At present Centre is conducting full time postgraduate programme in Orthodontics, PhD and fellowship. First fellowship in cleft and craniofacial orthodontics has been awarded in December 2018.

**Oral and Maxillofacial surgery**
It is imparting postgraduate in Oral and Maxillofacial surgery education for the past 10 years. The teaching includes Postgraduate seminars, journal clubs, bed side case discussions and surgical training.

- Problem based learning
- “Tell-show-do-review” model in teaching
- Log book and record keeping
- What went right? What could have been better? Model in seminars

**Prosthodontics**
Under graduates: Clinical teaching of 7th semester MBBS students
Postgraduates course in Prosthodontics.

**Pedodontics and Preventive Dentistry**
The Postgraduate course in Pedodontics and Preventive Dentistry was started in January 2017 (Master in Dental Surgery). It also participates in interdisciplinary training within CDER.

**Periodontics**
Clinical teaching of MBBS students as per their dental curriculum. Seminars for non-academic Junior residents. Joint academic sessions and classes for BSc Dental Hygiene students.

**Oral Pathology and Microbiology**
Clinical teaching of 7th semester MBBS students (4 batches). Teaching in the form of taking seminars of Non-Academic Junior residents (BDS) at CDER.
Oral Medicine
Classes for Non-Academic junior residents, MBBS, DORA Students, Dental Hygienist and Nursing Students.

CMEs/Workshops/Symposia/National and International Conferences conducted by Faculty Members of CDER

1. NOHP National Review Workshop, 12-13 April 2018, CDER AIIMS, New Delhi
2. Clinical and Biological Research in Orthodontics Workshop, 21-23 April 2018, CDER AIIMS, New Delhi
3. National Typodont Skill Workshop 2018, 5-7 October 2018, Ramalingaswami Board Room and CDER AIIMS, New Delhi
5. CME on “Digital Dentistry”, 18 December 2018, CDER AIIMS, New Delhi
6. Resident Orientation Programme, 13-14 August 2018, New Delhi
7. Clinical and Biological Research in Orthodontics (Organizing Secretary), 22-24 April 2018, New Delhi
8. AIIMS-Oregon Joint Symposium on Oral Health, 12 December 2018, New Delhi
9. CBCT in Endodontics—The third dimension, 3 August 2018, New Delhi
10. 1st National Conference of Indian Society of Dental Traumatology, 17-18 October 2018, New Delhi
11. 1st workshop on “Infection Prevention, decontamination in Oral Health Care”, 10 April 2018, CDER, AIIMS
12. Organized activities on the skill station (poster, education materials) on World Hand Hygiene Day SAVELIVES: CLEAN YOUR HAND, 5 May 2018, CDER, AIIMS
13. 30th Indian Society for Dental Research Annual Conference, 30 September-2 October 2018, New Delhi
14. 1st Conference of South Asian Association of Paediatric Dentistry, 4-6 May 2018, New Delhi
15. 1st National Conference of Indian Society of Dental Traumatology, 17-18 October 2018, New Delhi
16. 2nd National Symposium of Indian Society of Dental Traumatology, 15 July 2018, Panaji, Goa
17. 3rd National Symposium of Indian Society of Dental Traumatology, 3 March 2019, Kannur, Kerala
18. Computer guided implant treatment planning, 12 December 2018, CMET, AIIMS, Delhi
19. Hands on workshop on oral cancer screening in association with CDER AIIMS, 10 April 2019, National Institute of Cancer Prevention and Research, Noida

Lectures delivered

OP Kharbanda

1. Opportunities and Avenues in Dental Research in India and Abroad, CDE on “Promoting Research among Dental and Medical Students”, 18 May 2018, ESIC Dental College and Hospital, Rohini, New Delhi
2. Management of malocclusion in CLCP patients during mixed dentition, National Training Programme in Cleft and Craniofacial Orthodontics-2018, 17 August 2018, Kalinga Institute of Dental Sciences, Bhubaneswar
3. Transforming faces: Transforming lives, Professor Amrit Tewari Memorial CME, 5 September 2018, PGIMER, Chandigarh
4. Orthodontic wires and biomechanics, Indian Orthodontic Society Postgraduate Convention, 21-23 September 2018, Subharti Medical College, Meerut
5. Cleft Lip and Palate Clinical Care and Research in India, 31st ISDR International Conference, 27-30 September 2018, Dr DY Patil University, Mumbai
7. Pre-Surgical Orthognathic Surgery (POGS), 53rd Indian Orthodontic Conference, 6-9 December 2018, Kochi
8. Interdisciplinary management of cleft lip and palate, ICD Conference 2018 (Annual Convocation and Award Function), 14-16 December 2018, Hyderabad
9. Non Extraction Treatment with Non-Compliance Molar Distalisation, 23rd IOS PG Convention, 21-23 February 2019, ITS Dental College and Hospital, Noida
10. Management of severe malocclusion with implant supported orthodontics, Principles of pre-Graduate education in India, 11th International Scientific Conference, 18-21 April 2018, Lublin University, Poland
13. Interdisciplinary collaborations at Centre for Dental Education and Research, AIIMS, 2018
15. A Critical Appraisal Review of 140 Patients Treated with MSI, 10th World Implant Orthodontic Conference, 6-8 September 2018, Bali, Indonesia
16. WHO meeting, Oral Health Global Workshop, 10-12 October 2018, Montepellier University, France
17. Our clinical protocol of use in miniscrews in the treatment of complex cases of malocclusion, 13th World Microimplant Anchorage Congress, 24-25 November 2018, Kyungpook National University, Daegu, Korea

Ritu Duggal

1. Orthodontic pain nature and assessment tooth movement, Attended workshop on “Pain and Somatosensory Assessment in Humans”, 12 April 2018, New Delhi
2. Orthodontic Consideration in Traumatized teeth KeyNote Speaker during First National Conference of Indian Society of Dental Traumatology, 17-18 October 2018, New Delhi
3. Contemporary Edgewise National Typodont skill workshop, 5 October 2018, New Delhi
4. Pre-Surgical “Why and When” 1st AIIMS Orthognathic Workshop, 25 November 2018, New Delhi
5. Treatment modalities—An endless Diadem in Orthodontic Keynote Lecture at 53rd Indian Orthodontic Conference, 7-9 December 2018, Kochi
6. Overcoming challenges in class III treatment, Guest Speaker at 23rd IOS PG Students Convention, 21-24 February 2019, Noida

Ajoy Roychoudhury

1. Lefort III Osteotomy How to do? 1st AIIMS Orthognathic Workshop, 25 November 2018, AIIMS, Delhi
2. TMJ replacement reconstruction, 43rd AOMSI 1st Indo Japanese oral and Maxillofacial Conference, 12 October 2018, Chennai Convention Center, Chennai
3. Orbital Fractures, AOCMF Maxillofacial Trauma Conference, 3 March 2019, Riyadh
4. Panel discussion on mandibular fractures, AOCMF Maxillofacial Trauma Conference, 3 March 2019, Riyadh
5. Panel discussion on midface fractures, AOCMF Maxillofacial Trauma Conference, 3 March 2019, Riyadh
6. Concomittant orthognathic surgery and TMJ surgery, AOCMF: Advances in Orthognathic Surgery, 4 March 2019, Riyadh
7. Treatment of facial asymmetry, AOCMF: Advances in Orthognathic Surgery, 4 March 2019, Riyadh
8. Scope of TMJ arthrocentesis, Advances in TMJ Arthroscopy and Open Surgery with Anatomical Specimens, 25 May 2018, Prince Phillip University, Hong Kong
9. Protocol for pediatric TMJ ankylosis management, Advances in TMJ Arthroscopy and Open Surgery with Anatomical Specimens, 25 May 2018, Prince Phillip University, Hong Kong
10. Surgical management of condylar fracture, Advances in TMJ Arthroscopy and Open Surgery with Anatomical Specimens, 25 May 2018, Prince Phillip University, Hong Kong

Veena Jain

1. Full mouth rehabilitation, Workshop on “Full Mouth Rehabilitation”, 4 August 2018, Kathmandu, Nepal
2. Implants roll in the rehabilitation of maxillofacial defects secondary to traumatic injuries, 1st National Conference of Indian Society of Dental Traumatology, 17-18 October 2018, New Delhi
3. Implants in rehabilitation of cases with facial defects, 2nd National Conference of Clinical Society of Prosthodontics and Dental Implantology, 1-2 December 2018, New Delhi

Ongkila Bhutia

1. Maxillary Osteotomy, 1st AIIMS Orthognathic Surgery Workshop, 26 November 2018, AIIMS, New Delhi
2. Patient Referral System AIIMS, Resident Orientation Programme, 28 January 2019, AIIMS, New Delhi
3. Management of Post Extraction Bleeding, CDER Joint Academic Session, 5 March 2019, CDER, AIIMS, New Delhi
4. CDER Inter Departmental Patient Referral, Orientation Programme MDS residents, 14 August 2018, CDER, AIIMS, New Delhi

**Ajay Logani**

1. Optimal Apical Extent of Mineral Trioxide Aggregate (MTA) Barrier, 20th World Congress on Dental Traumatology, 15-18 August 2018, Sandiego, USA
2. Research methodologies, 31st Indian Society of dental research, 27-30 September 2018, DY Patil University, School of Dentistry, Navi Mumbai
3. Cracked tooth syndrome, Professor Amrit Tewari Memorial CME, 5 September 2018, PGIMER, Chandigarh
5. Regenerative endodontics, 1st IACDE North Zonal Conference, 20-22 September 2018, ITS, Greater Noida, Uttar Pradesh
7. Splinting of traumatized teeth, 3rd Indian Society for Dental Traumatology National Symposium, 3 March 2019, Kannur, Kerala
8. Regenerative endodontics: What have we achieved in the last fourteen years, 26th IES National Congress, 8-9 December 2018, New Delhi
9. MTA Barrier, Symposium on advancements in endodontics, 18 December 2018, Manav Rachna Dental College and Hospital, Faridabad
10. Diagnostic dilemmas in endodontics, Endodontic update, 13 March 2019, Subharti Dental College, Meerut
11. Evidence based management of traumatic dental injuries, CDE IDA East Delhi, 20 May 2018, New Delhi

**Vijay Prakash Mathur**

1. Dental laser applications, Dental College and Hospital in Collaboration with the Indian Dental Association—Goa State Branch, 7 April 2018, Goa
3. Handling primary teeth pulp with soft tissue lasers, American Academy of Paediatric Dentistry Annual Session at Honolulu, 24-27 May 2018, Hawaii, USA
5. Practical tips for using Dental Trauma Guidelines, APPs and Decision Matrices, Guest Lecture at the 2nd ISDT National Symposium of Indian Society of Dental Traumatology, 15 July 2018, Goa
6. Panel Discussion: Paediatric Dental Trauma, 20th World Congress on Dental Traumatology, 15-18 August 2018, San Diego, California, USA
8. Dental Trauma Symposium, 40th ISPPD Conference, 24-26 October 2018, Nagpur
10. When Trauma Arrives: Critical Decision Making, 3rd National Symposium of ISDT, 3 March 2019, Kannur, Kerala

**Devalina Goswami**

For details please see 9.1 Anaesthesiology.

**Dalim Kumar Baidya**

For details please see 9.1 Anaesthesiology.

**Prabhat Kumar Choudhari**

1. Appointment management, Resident Orientation Programme, 14 August 2018, CDER, AIIMS, New Delhi
2. Non-invasive 3D imaging: Unraveling the conventional path of orthodontics, 53rd Indian Orthodontic Conference, 7-9 December 2018, Kochi
3. Appointment management, Resident Orientation Programme, 28-29 January 2019, CDER, AIIMS, New Delhi
4. Malocclusion, Cleft Lip and Palate and Dental Trauma, Training of Ayush (System of Traditional Indian Medicine) Health Professional
5. Professionals on the Oral Health Promotion, 26 February 2019, CDER, AIIMS, New Delhi

**Nitesh Tewari**

1. Regenerative Approach in Management of Traumatic Dental Injuries in Growing Children, 2nd Annual Conference of Nepalese Association of Paediatric Dentistry at BP Koirala Institute of Health Sciences, 5 April 2018, Dharan, Nepal
2. Myths and Realities of Long Term Sequelae to primary tooth trauma, Dental Traumatology Symposium in 1st Biennial Conference of South Asian Association of Paediatric Dentistry, 6 May 2018, New Delhi
4. hPDLSC viability and differentiation potential in avulsed tooth storage media, 20th World Congress of Dental Traumatology, 16 August 2018, San Diego, USA
5. Splinting of teeth in luxation injuries, Pre-conference workshop on 1st National Conference of Indian Society of Dental Traumatology, 16 October 2018, New Delhi
7. Oral cavity as a window of celiac disease, 1st Celiac disease summit organized by Department of Paediatrics, AIIMS, 28 October 2018, New Delhi
9. Regenerative approach in management of traumatic dental injuries in growing children, Facets of Paediatric Dental Practice, Shri Ramakrishna Dental College, 5 January 2019, Navi Mumbai, Maharashtra
11. Dental Traumatology: How to tackle the trauma of dental trauma in MDS examinations, Pedo-Vista- Rapid Revision Program, Terna Dental College, 24 January 2019, Navi Mumbai, Maharashtra
12. Intricacies in management of crown and crown root fractures in young permanent teeth, 3rd National Symposium of Indian Society of Dental Traumatology, 3 March 2019, Kannur, Kerala

**Kalpana Bansal**

1. Changing concepts in caries microbiology, 1st Biennial Conference of SAAPD, 5 May 2018, Delhi
2. Traumatic dental injuries in children—An overview, 1st National Conference of Indian Society of Dental Traumatology, 18 October 2018, Delhi
4. Oral micro-flora estimation in caries active and caries inactive children using culture techniques and PCR analysis—A preliminary study, IAPD Global Summit on Early Childhood Caries, 2 November 2018, Bangkok, Thailand

**Dheeraj Kumar Koli**

1. Full mouth rehabilitation, Workshop on “Full Mouth Rehabilitation”, 4 August 2018, Kathmandu, Nepal

**Shalini Gupta**

1. Screening of oral cancer and precancers, Training of Trainers for ASHA workers organized by NHSRC, 24 July 2018, NIHFW, New Delhi
2. Screening of oral cancer and precancers, Training of Trainers for ASHA workers organized by NHSRC, 27 July 2018, NIHFW, New Delhi
3. Basics and beyond, CDER CDE 2018 Symposium on CBCT in Endodontics the Third Dimension, 8 March 2019, AIIMS Ramalingaswami Board Room, New Delhi
4. Oral Potentially Malignant Disorders (OPMDs): Pathophysiology, diagnosis and various types of OPMDs, NICPR-ECHO, Advanced Cancer Screening Training Programme in Oral cancer (ACSTP-O) for dentists and oral surgeons, 30 August 2018, NICPR, Noida

5. Common abnormalities of the oral cavity, NICPR- ECHO Cancer Screening Training Programme for Medical Officers (CSTP-MO), 18 December 2018, NICPR, Noida

6. Common abnormalities of the oral cavity, NICPR-ECHO Cancer Screening Training Programme for Medical Officers (CSTP-MO2), 13 February 2019, NICPR, Noida

7. Oral pre Cancer and Cancer—An overview, Training of AYUSH professionals, 28 February 2019, Board Room CDER, New Delhi

8. Communication skills and behavior, Orientation Programme CDER, 18 July 2018 and 28 January 2019, Board Room CDER, New Delhi

9. Radiation Safety, Orientation Programme CDER, 18 July 2018 and 28 January 2019, Board Room CDER, New Delhi


11. The role of Hypoxia and Angiogenesis in malignant transformation of oral submucous fibrosis, CDER Joint Academic Session, 7 August 2018, CDER Board Room, New Delhi

12. Serological levels and Single nucleotide polymorphisms of VEGF A, VEGF C and HIF-1α in OSCC with a background of OSMF, Indian Society for Dental Research 2018, 27-30 September 2018, DY Patil Dental College and Hospital, Navi Mumbai


15. The case of the vanishing teeth, Triple O Symposium 2019, 15-17 March 2019, Nair Dental College and Hospital, Mumbai


Kunal Dhingra

1. Sterilization and disinfection in dental operatory, Resident Orientation Programme, 14 August 2018, CDER, AIIMS, New Delhi

2. Artificial intelligence applications in Dentistry, Indo-Taiwan Workshop, 1-2 November 2018, IIT (Chennai)

3. Sterilization and disinfection in dental operatory, Resident Orientation Programme, 28-29 January 2019, CDER, AIIMS, New Delhi

4. Periodontal diseases, Training of Ayush (System of Traditional Indian Medicine) Health Professionals on the Oral Health Promotion, 26 February 2019, CDER, AIIMS, New Delhi

5. Periodontal disease and systemic health, Oral Health and Systemic Disorders, 27 March 2019, Regional Research Institute of Unani Medicine, New Delhi

Vikender Singh

1. Periodontics in general dental practice, CDE Programme of Indian Dental Association, 5 January 2019, Ferozepur, Punjab, India

2. Splinting: A healing touch to periodontium, 1st National Conference of Indian Society of Dental Traumatology, 16 October 2018, New Delhi, India

3. New vistas in clinical periodontics and mucogingival esthetics: A roadmap for dental practitioners, 11th International Dental Students and 5th Dental Surgeons Conference, 13 October 2018, New Delhi, India

4. Maximizing success in root coverage procedures: Strategic predictable approach, 43rd Annual Conference of Indian Society of Periodontology, 6 October 2018, Chandigarh, India

Deepika Mishra


3. Epidemiology, Etiology and Risk Factors of Oral Cancer (with focus on Tobacco and Areca nut), Advanced Cancer Screening Training Programme in Oral cancer (ACSTP-O) for dentists and oral surgeons, 23 August 2018, National Institute of Cancer Prevention and Research, Noida

4. Histological changes in periodontium in dental trauma, National Conference of Indian Society for Dental Traumatology, 16 October 2018, AIIMS, Delhi

5. Salivary Gland Symposium, CDE programme on “Deciphering Salivary Gland Pathology”, 15 March 2019, ESIC Dental College and Hospital, Rohini, Delhi

Harsh Priya


2. Effects of tobacco on health and the benefits of quitting, NICPR-ECHO: Advanced Cancer Screening Training Programme-Oral (ACSTP-O), 13 September 2018, NICPR, Noida


4. E Dant Seva, Regional Review Meetings of the State Nodal Officers of National Oral Health Programme—West Zone, 10 December 2018, Ahmedabad


7. Orienting SNOs for Dental Facility in E Dant Seva, Regional Review Meetings of the State Nodal Officers of National Oral Health Programme—North Zone, 15 February 2018, Chandigarh


9. Healthy Mouth, Training of AYUSH Professionals on Oral Health Promotion, 28 February 2019, CDER, AIIMS, New Delhi

10. Pre Malignant Lesion and Tobacco Cessation, Oral Health and Systemic Disorders, 27 March 2019, Regional Research Institute of Unani Medicine, Jamia Nagar, New Delhi

Rahul Yadav

1. Transpost disc distraction osteogenesis for RCU reconstruction, 1st AIIMS Orthognathic Workshop, 25 November 2018, AIIMS, Delhi

Oral papers/posters presented


4. Atif M, Mathur VP, Tewari N, Bansal K, Method of development and validation of research tool in qualitative research: A pragmatic review, 1st Biannual Conference of South Asian Association of Paediatric Dentistry, 6 May 2018, New Delhi, Awarded First Prize


7. Azam I, Mathur VP, Tewari N, Bansal K, The International Caries Classification and Management System (ICCMS) protocol in Indian scenario 1st Biannual Conference of South Asian Association of Paediatric Dentistry, 6 May 2018, New Delhi


12. Bhadauria U, Severity of periodontal diseases in past cigarette smokers suffering from rheumatoid arthritis, 4th National Conference on Tobacco or Health, 10 February 2019, Mumbai

13. Bhusan U, Koli D, Jain V, Dentinogenesis imperfecta—Clinical considerations and various prosthetic options, 20th IPS PG convention, 6-8 July 2018, Chennai


15. Chandulal J, Koli D, Jain V, Multidisciplinary approach in Trauma dentistry, 1st national conference of Indian Society for Dental Traumatology, 17-18 October 2018, New Delhi

16. Chandulal J, Koli D, Jain V, Prostodontic rehabilitation of mandibulectomy patients, 20th IPS PG Convention, 6-8 July 2018, Chennai


20. Chawhan G, Baidya DK, Maitra S, Subramaniam R, Trikha A, Batra RK, Arora MK, Efficacy of Left ventricular outflow tract velocity time integral (LVOT VTI) and carotid artery VTI as predictor of volume responsiveness to passive leg raising (PLR) in sepsis and septic shock patients by correlation with Echocardiography guided stroke volume change (delta SV%) to PLR, SG-ANZICS (Singapore—Australia and New Zealand Intensive Care Society), 10 May 2018, Singapore


22. Das D, Oral hygiene status and provision of basic oral health care among visually impaired children of Bhubaneswar, 72nd Indian Dental Conference, 18-20 January 2019, Indore

23. Das D, Prevalence of tobacco use among the Juang tribe—a particularly vulnerable tribal group residing in Northern Odisha, 4th National Conference on Tobacco or Health, 8-10 February 2019, Mumbai


25. Gill S, A prospective study to observe the influence of co-existing traumatic overbite on the outcome of Non-Surgical Endodontic Therapy (NSET) performed on anterior teeth with periapical pathosis, 1st IACDE Zonal Conference 2018, 20-22 September 2018, Greater Noida

26. Gill S, Influence of co-existing traumatic overbite on the outcome of Non-Surgical Endodontic Therapy (NSET), 26th IES National Congress, 8-9 December 2018, New Delhi


30. Ishrat S, Mathur VP, Tewari N, Prevent the injuries of teeth: Awareness poster for Pro-Kabaddi League, 1st National Conference of Indian Society of Dental Traumatology, 18 October 2018, New Delhi, Awarded First Prize

31. Ivaturi A, Digitizing oral health for enhanced access: The policy-perception gap, National Conference of the IAPHD, 30 November 2018, DJ Dental College, Modinagar


34. Ivaturi A, Tobacco cessation counselling, hands on workshop on oral cancer screening for dentists and medical officers, 20 September 2018, ICMR, NICPR, Noida

35. Ivaturi A, Tobacco cessation-behavioural and pharmacological efforts, ECHO-for Medical Officers on Common Cancer Screening, 1 January 2019, ICMR, ICPR, Noida

36. Kaur A, Anterior tooth vital bleaching for trauma induced calcific metamorphosis, 26th IES National Congress, 8-9 December 2018, New Delhi

37. Kaur A, Assessment of radicular morphology of mandibular molars in Indian population—A retrospective CBCT analysis, IFEA 11th World Endodontic Congress, 4-7 October 2018, Seoul, Korea

38. Kaur A, Comparative bioactivity of two bio ceramic indirect pulp capping materials—An ex-vivo study, IFEA 11th World Endodontic Congress, 4-7 October 2018, Seoul, Korea


42. Khurana C, Exploring behavioral factors and perception towards Hookah smoking among Youth Smokers, 4th National Conference on Tobacco or Health, 10 February 2019, Mumbai

43. Khurana C, Exploring newer avenues: A shot to oral health care challenges, 72nd Indian Dental Conference, 18-20 January 2019, Indore

44. Koli B, Orthograde root end filling with MTA followed by root end resection: An alternative treatment protocol to conventional periapical surgery—A case report, IACDE 20th PG Convention, 8-10 March 2019, Chandigarh


46. Koli D, Jain V, Management of dental trauma in anterior jaws with dental implants, 20th World Congress on Dental Traumatology, 15-18 August 2018, San Diego, California, USA

47. Koli D, Jain V, Prosthodontic rehabilitation of acquired mandibular defects—From inability to ability, 46th IPS National Conference, 15-18 November 2018, Mangalore


50. Kumar A, Two rooted maxillary central incisor with labial groove—An endodontic oddity managed with the aid of CBCT, 26th IES National Congress, 8-9 December 2018, New Delhi


52. Madhubala A, Mathur VP, Tewari N, Bansal K, Comparative evaluation of color change in esthetic restorative materials by commonly consumed eatables and medicinal supplements by Indian children; An in vitro study, 1st Biannual Conference of South Asian Association of Paediatric Dentistry, 6 May 2018, New Delhi


54. Marina S, Koli D, Jain V, Different methods for fabrication of definitive hollow bulb obturator to rehabilitate maxillectomy patients, 20th IPS PG convention, 6-8 July 2018, Chennai


57. Merina S, Koli D, Jain V, Ocular prosthesis—Techniques, clinical considerations and case report, 46th IPS National Conference, 15-18 November 2018, Mangalore
58. Mishra D, Giant cell lesions of the jaws and emphasis on differential diagnosis, 27th National conference of Indian Association of Oral and Maxillofacial Pathology at Amritsar, 17 November 2018, Amritsar
61. Navas M, Sandwich technique for wire-splinting of traumatized teeth: Preliminary clinical experience, IACDE 20th PG Convention, 8-10 March 2019, Chandigarh
62. Paulose P, Cone beam computed tomographic characterization of periapical lesion that are evident on IOPA radiographs: A retrospective analysis, 1st IACDE Zonal Conference 2018, 20-22 September 2018, Greater Noida
63. Paulose P, Cone beam computed tomographic characterization of periapical lesion that are evident on IOPA radiographs: A retrospective analysis, 33rd National Conference IACDE, 16-18 November 2018, Vijayawada
64. Priya H, Effectiveness of a web based learning module on the oral health promotion for nursing professionals, 23rd Annual Conference, Indian Association of Public Health Dentistry, 30 November-2 December 2018, Divya Jyoti Dental College, Modinagar
66. Roychoudhury A, Cluster randomized controlled clinical trial to evaluate fate and volumetric shrinkage of interposed pedicled buccal pad of fat and abdominal fat in the treatment of TMJ ankylosis, TMJ Section, 25-26 November 2018, AIIMS, New Delhi, Awarded First Prize
68. Sharma R, 3D imaging as an advanced diagnostic modality for a case with complex anatomical variation, 1st IACDE Zonal Conference 2018, 20-22 September 2018, Greater Noida
69. Sharma R, Effect of gravity on periapical extrusion of irrigant in immature permanent teeth, IACDE 20th PG Convention, 8-10 March 2019, Chandigarh


84. Singh GK, A CBCT guided template technique for minimally invasive endodontics in a calcified anterior tooth, 1st National Conference ISDT, 17-18 October 2018, New Delhi

85. Singh V, Multiple implant placement with simultaneous soft tissue augmentation, 10th International Congress of Academy of Oral Implantology New Delhi, 3-5 August 2018, New Delhi

86. Singh V, Soft tissue augmentation around dental implants: Case series, 5th Global American Academy of Implant Dentistry Conference, 3 March 2019, New Delhi


89. Tamchos R, Mathur VP, Tewari N, Bansal K, School teachers be prepared: Dental Trauma does occur, 1st National Conference of Indian Society of Dental Traumatology, 18 October 2018, New Delhi

90. Urvashi V, Koli D, Jain V, Management of a hemimandibullectomy patient with free fibula graft using dental implants—A case report, 46th IPS National Conference, 15-18 November 2018, Mangalore

91. Venkat N Koli D, Jain V, Socket shield technique—poster, 1st national conference of Indian society for Dental Traumatology, 17-18 October 2018, New Delhi


93. Yadav V, Koli D, Jain V, Various retentive aids for orbital prosthesis, 46th IPS National Conference, 15-18 November 2018, Mangalore

RESEARCH

Funded projects

Ongoing

1. A prospective pilot study to evaluate the clinical success of a Tooth Colored metal free Self-Curing Resin-based material as an alternate to silver amalgam for Class-II posterior restoration, Amrita Chawla, AIIMS, 2 years, 2017-2019, Rs 3.72 lakhs

2. A study validating the efficacy of a herbal mouthwash in reduction of plaque and gingivitis: An in vitro evaluation and a randomized controlled clinical trial, OP Kharbanda, National Innovation Foundation, DST, Government of India, 2 years, 2019, Rs 30.47 lakhs

3. Association of Candida and antifungal therapy with pro-inflammatory cytokines in oral leukoplakia—A pilot study, Shalini Gupta, AIIMS, 2 years, 2018-2020, Rs 5 lakhs

4. Automatic diagnosis and monitoring for orthodontic invisible appliance cases using Artificial Neural Network (ANN), OP Kharbanda, India-Taiwan S&T Cooperation Programme—Global Innovation and Technology Alliance (GITA), 2 years 10 months, July 2018 to May 2021, Rs 16.6 lakhs (India), NT$ 600,000 (Taiwan)

5. Cleft Lip and Palate anomaly in India: Clinical profile Risk factors and current status of treatment: A hospital-based study-Main phase, OP Kharbanda, ICMR, 3 years, 2017-2020, Rs 316 lakhs

6. Cluster randomized controlled superiority trial to evaluate the growth outcomes and jaw functions after interposition arthroplasty with costochondral graft versus gap arthroplasty in the management of temporomandibular ankylosis, Ajoy Roychoudhury, ICMR, 3 years, 2016-2019, Rs 15.46 lakhs

7. Cone Beam Computed Tomographic evaluation of two novel techniques as adjuncts for non surgical management of large periapical lesions of endodontic origin—Prospective randomized double blind controlled trial, Ajay Logani, ICMR, 3 years, 2018-2020, Rs 316 lakhs

8. Effect of systemic and local antibiotic therapies on clinical and patient reported outcomes in healthy, partially dentate patients undergoing dental implant placement—A preliminary study, Veena Jain, AIIMS, 2 years, 2016-2018, Rs 3.98 lakhs

9. Effect of various tooth storage media on viability, proliferative ability and differentiation of human periodontal ligament stem cells—An in-vitro preliminary study, Nitesh Tewari, AIIMS, 1 year, 2016-2017, Rs 18 lakhs

10. Effectiveness of an Oral Health Toolkit for Paediatric Oncology Patient against standard of care in the improvement of oral health status in 2-14 year old pediatric cancer patients, Harsh Priya, AIIMS, 2 years, 2018-2020, Rs 5 lakhs

AIIMS 2018-19 / 579
11. Evaluation of inflammatory markers metalloproteinase-8 (MMP-8) and cathepsin-k (CTSK) levels in immediate loaded and delayed loaded dental implants: A randomized controlled trial and pilot study, Dheeraj Kumar Koli, AIIMS, 2 years, 2017-2019, Rs 7.5 lakhs

12. Evaluation of Success of Silver Modified Atraumatic Restorative technique with Conventional Restorative technique on Carious Primary molars—A Randomized Controlled Trial, Kalpana Bansal, AIIMS, 2 years, 2016-2018, Rs 1.21 lakhs

13. Evaluation of the effects of miniplate anchored hybrid fixed functional appliance in post-adolescent and young adults with Class II malocclusion, Vilas Samrit, AIIMS, 2 years, 2016-Ongoing, Rs 3.67 lakhs

14. Functional collagen nanoparticle impregnated silk Nano-ceramic composite 3D matrices for flat bone regeneration, OP Kharbanda, DBT, 3 years, 2018-2021, Rs 9.86 lakhs

15. Maxillofacial planning and simulation system, Ajoy Roychoudhury, Ministry of Electronics and Information Technology, 3 years, 2016-2019, Rs 131.93 lakhs

16. Oral and Maxillofacial region, Deepika Mishra, AIIMS, 1 year, 2018-ongoing, Rs 5 lakhs

17. The levels of Matrix Metalloproteinase-9 (MMP-9) as a prognostic biomarker for the outcome of pulpotomy in mature permanent teeth with symptomatic irreversible pulpitis—A clinical prospective study, Vijay Kumar, ICMR, 2 years, 2018-2020, Rs 0.5 lakhs

Completed

1. Building research capacity in India: Identifying barriers and enablers to oral health research, OP Kharbanda, International Association of Dental Research (IADR) USA in collaboration with Indian Society for Dental Research (ISDR), 2 years 6 months, 2016–ongoing, USD 39,960

2. Assessment of microflora of severe dental caries in Indian children using anaerobic culture and molecular techniques, Kalpana Bansal, AIIMS, 2 years, 2016-2018, Rs 9.3 lakhs

3. Association between serological levels and genetic polymorphisms of VEGF A and C with clinicopathological characteristics in oral squamous cell carcinoma and oral submucous fibrosis—A pilot study, Shalini Gupta, AIIMS, 2 years, 2016-2018, Rs 9.99 lakhs

Departmental projects

Ongoing

1. A 3D study of treatment changes following maxillary protraction protocol in growing class III patients using digital models

2. A preliminary study to evaluate the outcome of combination of non-surgical endodontics and vital pulp therapy for management of mature permanent molar teeth with symptomatic irreversible pulpitis and periapical rarefaction

3. A prospective study to evaluate improvement in posterior airway volume and lengthening of mandible in simultaneous release of Ankylosis and mandibular distraction

4. A prospective study to observe the influence of immediate functional vs nonfunctional loading of full coverage prosthesis in the outcome of non-surgical endodontic therapy performed in posterior teeth with periapical pathology

5. Ambispective study to evaluate the fate of Costochondral Graft in TMJ ankylosis patients from January 2014 to April 2018

6. An observational analytical study to evaluate the effects of Anti-cancer therapy on developing dentition in long term survivors of childhood cancers

7. Analgesic efficacy of ultrasound guided erector spinae block versus intrathecal morphine in patients undergoing percutaneous nephrolithotomy surgery: A prospective randomised comparative pilot study

8. Analysing the long term effects of primary tooth trauma on permanent dentition

9. Analysis of the existing anti spitting laws in various geographical locations and implementing sectors in India

10. Assessment of Inferior Vena Cava Collapsibility Index (IVCCI) and variation of Carotid Artery Peak Velocity (CAPV) as predictor of post-spinal hypotension

11. Assessment of single versus subsequent Micro osteoperforation stimulated expression of IL-1β levels during Orthodontic Tooth Movement—A pilot study

12. Association of intraoperative blood glucose variability with postoperative outcomes in emergency laparotomy

13. Comparative evaluation of different root surface bio-modification methods in teeth with extra oral dry times more than 60 minutes

14. Comparative evaluation of Diode Lasers and conventional surgical technique in soft tissue procedures

15. Comparative evaluation of directly placed composites and direct composites inlays in primary teeth
16. Comparative evaluation of Simvastatin Gel and Diode Laser for pulpotomy in primary molars: Single blind Phase 2 randomized trial
17. Comparative evaluation of success of silver modified atraumatic restorative technique with conventional restorative technique on carious primary molars—A randomized controlled trial
18. Comparing the level of biomarker post immediate and delayed indirect loading of mini-screw implants—A preliminary study
19. Comparison of clinical efficacy of Intrathecal 0.75% isobaric ropivacaine with fentanyl versus clonidine as adjuvant in caesarean section: A prospective randomised controlled trial
20. Comparison of lactate clearance and neutrophil lymphocyte ratio as predictor of mortality in patients with sepsis
21. Comparison of opioid based anesthesia technique and opioid free anesthesia technique in patients undergoing laparotomy for gynaecological malignancy: Randomized controlled trial
22. Comparison of treatment outcomes subcondyle fracture of mandible, managed using one trapezoidal plate vs two nonparallel straight miniplate
23. Early administration of Vitamin D to reduce ICU length of stay in critically ill sepsis patients: Randomized controlled trial
24. Effect of addition of dexamethasone to ropivacaine for extraoral mandibular nerve block in patients undergoing mandibular surgeries under general anaesthesia
25. Effect of Rapid maxillary expansion on hearing in patients having Cleft Palate with conductive hearing loss—A pilot study
26. Emergency laparotomy for perforation peritonitis: Prospective observational study
27. Evaluation and analysis of an oral health promoting website and mobile application—E Dant Seva
28. Evaluation of fit feasibility of TJR standard stock prosthesis in TMJ ankylosis patients of Indian population—Ambispective observational study investigator
29. Evaluation of rank1 in GCF and rate of tooth movement during canine retraction assisted with low level laser therapy—A randomized control trial
30. Evaluation of the success rate of one piece yttrium—Stabilized zirconia root analogue (RAI) Dental Implants—A pilot study
31. Feasibility of anterior temporals muscle ultrasound as a method to assess muscle wasting in ICU
32. Feasibility of the International Caries Classification and Management System protocol in a hospital-based setting
33. Fentanyl versus Dexmeditomidine infusion in head and neck free flap surgery for comparison of hemodynamics and anesthetic requirements
34. Interleukin 1B levels around orthodontic mini implants during direct loading
35. Orthodontic white spot lesion Index: A novel tool for assessment of white spot lesion induced in orthodontic patients
36. Outcome of full pulpotomy performed with or without calcium silicate based cement in mature permanent teeth with mechanical pulp exposure—A split mouth study
37. Predictors of Intensive Care Unit Admission And Mortality In Acute Febrile Illness: A Prospective Observational Study
38. Predictors of tobacco cessation in individuals attending a tobacco cessation clinic at tertiary care centre for dental education and research in India
40. Prognostic significance of preoperative blood lactate and lactate clearance in patients undergoing emergency laparotomy for perforation peritonitis: A prospective observational study
41. Prognostic significance of red blood cell transfusion trigger in critically ill patients with sepsis and septic shock: Prospective observational study
42. Prospective study for the evaluation of change in 3D airway volume and improvement in quality of life after distraction osteogenesis of mandible in Obstructive Sleep Apnoea (OSA) patients secondary to retrognathia in TMJ ankylosis
43. Prospective study to evaluate the stability after zygomatic osteotomy in patients with post traumatic residual deformity of Zygomatico Maxillary Complex
44. Randomized control trial: Comparative analysis of orbital volume in 3D model assisted mesh adaptation versus conventional technique in reconstruction of orbital floor fracture
45. Randomized controlled trial to evaluate the treatment outcomes of transparotid and transmasseteric anterior parotid approached to treat mandibular subcondylar fractures
46. Role of spot urine sodium in furosemide stress test in volume overloaded critically ill patients with acute kidney injury—A prospective study
47. Severity and Pattern of Early Childhood Caries among Pre-school Children and its Association with Various Behavioral Factors—A hospital based study
48. Sternocleidomastoid and trapezius muscle activity before and after Twin block therapy in skeletal class II growing patients
49. Stress distribution pattern in two different types of removable partial dentures on the supporting structures—A 3D finite element analysis and a clinical study
50. The effect of locally injected platelet rich plasma on the rate of tooth movement during maxillary canine retraction—A pilot study
51. The effect of mandibular single implant supported over denture on residual ridge resorption
52. The effect of prosthodontic rehabilitation of completely edentulous geriatric patients with mild cognitive impairment on their memory process—A functional MRI-based pilot study
53. The influence of the severity of periodontal disease on periapical healing after non-surgical endodontic therapy in teeth with concomitant endodontic periodontal lesions without communication—A prospective study
54. The levels of Matrix Metalloproteinase-9 (MMP-9) as a prognostic biomarker for the outcome of pulpotomy in mature permanent teeth with symptomatic irreversible pulpitis—A clinical prospective study
55. To compare the effect of I-PRF or alloplastic graft material on crestal bone levels around immediate implant placed in mandibular molar region
56. To evaluate and compare bite force and chewing efficiency in patients of TMJ ankylosis treated with alloplastic total joint replacement gap arthroplasty with normal individuals
57. To evaluate neck muscle activity after mandibular postural changes in growing class II high angle patients with Twin Block therapy—An EMG study
58. To evaluate the applicability Artificial Intelligence (AI) for categorizing the radiographic peri apical lesions based on the Peri Apical Index (PAI) scoring system—A method comparison study
59. Treatment outcome of composite restoration performed with either indirect pulp therapy or full pulpotomy in deep proximal carious lesion—A clinical study
60. Ultrasonographic assessment of brachial artery reactivity as predictor of adverse outcome in patients undergoing

**Completed**

1. A comparative study to evaluate the soft tissue and volumetric changes around immediate implants placed using socket shield technique and conventional technique—A pilot study
2. A Prospective Study to Observe the Influence of Co-existing Traumatic Overbite on the Outcome of Non-Surgical Endodontic Therapy (NSET) Performed on Anterior Teeth with Periapical Pathosis
3. An ex-vivo study to explore the strategies for enhancing the micro-tensile bond strength of composite resin in cavity previously restored with amalgam
4. Analysing the proficiency of a routine module in early detection of oral cancer among oral health care para professionals
5. Carotid artery corrected flow time and respiratory variations of peak blood flow velocity for prediction of hypotension after induction of general anaesthesia in adult patients undergoing elective surgery: A prospective observational study
6. Comparative evaluation of the wear of glazed zirconia crown, polished zirconia crown and opposing natural enamel: An in vivo study
7. Comparison of intraocular pressure change with facemask vs laryngeal mask airway in anaesthetised children
8. Comparison of Opioid based and Opioid free TIVA I laparoscopic gynaecological surgery: A randomized controlled trial
9. Comparison of post extraction bleeding complication in patients taking oral anticoagulants, with and without bridging therapy: A pilot study
10. Cone beam computed tomographic characterization of periapical lesions that are evident on intraoral periapical radiographs: a retrospective analysis
11. Effect of addition of dexamethasone to ropivacaine for extraoral mandibular nerve block in patients undergoing mandibular surgeries under general anaesthesia
12. Effect of dexmedetomidine on emergence delirium and recovery parameters after desflurane or sevoflurane anesthesia in children: A prospective double randomized study
13. Effect of prosthodontic rehabilitation on functional and esthetic outcomes in non-reconstructed mandibulectomy patient—A preliminary study
14. Effect of prosthodontic rehabilitation on the nutritional status of maxillectomy patients using blood biochemistry, bca and pg-sga—A preliminary study
15. Effect of two-time micro-osteperforations on rate of orthodontic tooth movement—A pilot study
16. Effectiveness of a Web based Learning Module on Oral Health Promotion for Nursing Professionals
17. Efficacy of decremental PEEP trial on postoperative oxygenation status in adult patients undergoing emergency laparotomy: A pilot randomized controlled trial
18. Efficacy of Left ventricular outflow tract velocity time integral (LVOT VTI) and carotid artery VTI as predictor of volume responsiveness to passive leg raising (PLR) in sepsis and septic shock patients by correlation with Echocardiography guided stroke volume change (delta SV%) to PLR
19. Epidemiology and prognostic utility of cellular components of hematological system in sepsis
20. Evaluation of diaphragmatic muscle mass in patients receiving pressure regulated volume controlled ventilation and synchronized intermittent mandatory ventilation for acute respiratory failure: A randomized controlled trial
22. Integrated Ultrasound Protocol in predicting Weaning Success and Estutation Failure: A Prospective Observational Study
24. School Based Pit and Fissure Sealant Project
25. To assess the efficacy of local anesthetic wound infiltration in temporomandibular joint ankylosis surgery for control of post-operative pain: Randomized controlled trial
26. To determine whether implementation of a new ICU delirium prevention bundle will reduce the incidence of delirium compared to standard of care protocol in mechanically ventilated patients
27. To study the efficacy of clonidine as an adjuvant to ropivacaine in ultrasound guided transversus abdominis plane block in adult renal transplant recipients—A double blinded randomised controlled trial

Collaborative projects

Ongoing

1. A population based prospective cohort study to unravel the causes of stroke and cognitive decline: A cross cultural perspective, Neurology
2. A study of offset analgesia in Trigeminal Neuralgia, Physiology
3. Assessment of microflora of severe dental caries in Indian children using anaerobic culture and molecular techniques, Microbiology
4. Cleft Lip and Palate anomaly in India: Clinical profile risk factors and current status of treatment: A hospital based study-Main Phase, Genetics and CSIR-IGIB
5. Design and testing of orthodontic miniscrew embedded with sensors to detect inflammation—Phase I, Department of Biomedical Engg, Indian Institute of Technology, New Delhi
6. Development of MOOCs on Oral Health and Oral Cancer, WHO
7. Effect of various tooth storage media on viability, proliferative ability and differentiation of human periodontal ligament stem cells—An in-vitro preliminary study, Stem Cell Facility
8. Empowering AYUSH health professionals for oral health promotion, Ministry of Health and Family Welfare
9. Evaluation of a single pre-operative preemptive dose of Etoricoxib for postoperative pain relief in dental surgeries under general anaesthesia: A randomized, prospective double blinded placebo controlled trial, Anaesthesia
10. Functional collagen nanoparticle impregnated silk nano-ceramic composite 3D matrices for flat bone regeneration, IIT, Guwahati
11. Impact of oral health promotion training among nursing professionals in India—An interventional study, Ministry of Health and Family Welfare
12. Impact of training package on oral health promotion among school teachers in India: An interventional study, Ministry of Health and Family Welfare
13. Incidence and risk factors of back pain after cesarean section: A prospective observational study, Gynaecology and Obstetrics
14. Pilot Implementation of Collaborative Digital Diagnosis System (Collards) using Medical Imaging, National Informatics Centre (NIC), New Delhi, Central Scientific Instruments Organisation, Chandigarh, Indian Institute of Technology, Mumbai, Radiodiagnosis, AIIMS, New Delhi

15. Role of human Heterogeneous Nuclear Ribonucleoprotein D (hnRNPD) in oral cancer, Biochemistry

16. Role of Negative Regulators of EGFR in Malignant Transformations of Oral Dysplasia, Biochemistry

17. Systematic Review and Meta-analysis: Knowledge, Attitude, Awareness and Practice for prevention and emergency management of traumatic dental injuries among school teachers of the world, Biostatistics, Centre for Community Medicine

18. To assess the potential ability of Cathepsin L and Cathepsin B as universal biomarkers of cancer, Biochemistry

**Completed**

1. A study to assess the effectiveness of a planned simulation teaching on the knowledge and skill of nurses working in critical care unit of AIIMS, College of Nursing

2. An exploratory study to assess the association between Nicotine Metabolite Ratio (NMR) and Smokeless Tobacco Use parameters, Psychiatry and NDDTC

3. Analysing the long term effects of primary tooth trauma on permanent dentition Department of Pedodontics and Preventive Dentistry, FODS, KGMU, Lucknow and BBDCODS

4. Assessment of peri-natal oral health and Implementation of Oral Health promotion programme in Indian pregnant women, Gynecology and Obstetrics

5. Association between serological levels and genetic polymorphisms of VEGF A and C with clinicopathological characteristics in oral squamous cell carcinoma and oral submucous fibrosis—A pilot study, Biochemistry

6. Automatic segmentation of upper airway using CBCT scans data, Central Scientific Instruments Organisation (CSIO), Chandigarh

7. Effect of repetitive Trans cranial Magnetic Stimulation on pain status, thermal sensitivity and motor activity in Myofacial Pain Dysfunction Syndrome, Physiology

8. Estimate the oral cancer conversion risk with long term follow up (10-15 years) of patients with precancerous lesions—Leukoplakia, submucous fibrosis, lichen planus among patients included in a ICMR tobacco task force project, General Surgery, and NICPR, Noida

9. Interdisciplinary variations in spectrum of oral mucosal lesions, Dermatology

10. Systematic review and meta-analysis: Prevalence of traumatic dental injuries in India, Biostatistics

**PUBLICATIONS**

Journals: 41    Abstracts: 12    Chapters in books: 3

**PATIENT CARE**

**Orthodontics and Dentofacial Deformities**

During the year under review we have provided greater emphasis on Interdisciplinary treatment of patients with Cleft Lip and Palate and initiated combined orthognathic surgery patients suffering from facial deformities. 48 patients are running so far.

**Oral and Maxillofacial Surgery**

More than 1,000 major cases operated in department. First in country to achieve 50 TMJ replacement surgeries.

**Oral and maxillofacial Surgery OPD and Inpatient services**

1. Exodontia, simple and complicated
2. Temporomandibular Joint Surgery
3. Cranio-facial trauma
4. Orthognathic and Aesthetic Surgery of face
5. Oral and Maxillofacial Pathology
6. Maxillofacial Infections
7. Surgery for Obstructive sleep apnea
8. Trigeminal neuralgia Clinic
9. Oste-odontokeratoplasty

**Prosthodontics**

Dental rehabilitation of complete and partially edentulous patients. Specialty clinic on Oral and Maxillofacial Prosthodontics, implant dentistry and temporomandibular disorders. Different types of prosthesis which we are fabricating for the patients are Complete denture, Removable Partial Denture, Crown and Bridge work, Laminates, Occlusal splints, Implant supported Prosthesis (Removable and Fixed), and Maxillofacial Prosthesis (Extra oral/Facial and Intra oral). Two labs to fabricate removable and fixed Prosthodontic appliances.
Conservative Dentistry and Endodontics

Specialty clinic of Conservative Dentistry and Endodontics is held twice a week. A non-surgical and surgical endodontic Retreatment clinic has been initiated and is held once a week.

Pedodontics and Preventive Dentistry

It provides state of the art preventive, diagnostic and treatment facilities to the children reporting with oral health problems. In addition to the routine procedures, we excel as one of the best centers for Paediatric Soft tissue Laser dentistry in India with a dedicated Minor OT for the same. Special Care Dentistry is an integral part of our work spectrum with large number of referrals from pediatric nephrology, oncology, gastroenterology, neurology, cardio-thoracic surgery and hematology. Dental caries preventive protocol is strictly followed as per the international guidelines with ultra-modern strategies. Traumatic Dental injuries reporting in primary and permanent dentition are all managed on emergent.

Oral Medicine and Radiology

Specialty Clinic: Oral Ulcers Clinic (Wednesday 2.00 PM)
Cone Beam Computed Tomography facility in Oral Medicine and Radiology CDER
Development of registry for Oral Potentially Premalignant lesions in CDER

Periodontics

Various treatment procedures carried out in department are:

- Conventional non-surgical and surgical periodontal therapy, Periodontal plastic surgery, Soft and hard tissue regenerative procedures, Diode laser assisted soft tissue excision and adjunctive pocket debridement procedures

Public Health Dentistry

1. Tobacco Cessation Counselling at the CDER AIIMS, New Delhi OPD
2. School Based Pit and Fissure Sealant Programme, MoHFW
3. Oral Health Promotion Drive on the occasion of International Childhood Cancer Day on 27 February 2019 at the Jawaharlal Nehru Auditorium at AIIMS, New Delhi and monthly intervention at the Day Care for the newly diagnosed Paediatric Oncology Patients.

Oral Pathology and Microbiology

Oral Cytopathology and Histopathology Laboratory at CDER.

AWARDS, HONORS AND SIGNIFICANT EVENTS

Honours—Centre for Dental Education and Research, AIIMS for Community Work

1. Best Exhibit was awarded to the Centre for Dental Education and Research, AIIMS at the 63rd Institute Day 2018 on 25 September 2018 at the JLN Auditorium, AIIMS, New Delhi
2. Dr DN Kapoor Award was presented to the Centre for Dental Education and Research, AIIMS, New Delhi for the best Community Dentistry project taken by the institution for the year 2018 at the International College of Dentists Conference on 15-16 December 2018, Hyderabad.

Professor OP Kharbanda was unanimously nominated as “Asia Representative” to “Orthodontic Research Group” (ORG) of International Association for Dental Research (IADR); received outstanding Professor Award of the Indian Orthodontic Society; appointed by the Chairman, Defence Research and Development Organisation (DRDO), Ministry of Defence, a member of the Armed Forces Medical Research Committee (AFMRC); attended ORMCO course on 13 May 2018, New Delhi; Chief Guest to “5th Award Ceremony of Heal Talk Award 2018” on 27 May 2018 at Bravura Gold Resort, Meerut; attended Pierre Fauchard Academy CDE and 32nd Annual Convocation and Awards Ceremony on 22 December 2018 at Maulana Azad Institute of Dental Sciences, Delhi; appointed Honorary Advisor to Medical Advisory Council Mission Smile, New Delhi; continuing on the International Editorial Board of British Journal of Orthodontics and Australian Orthodontic Journal; Chief Resource Faculty at “8th Insight into Orthodontic Postgraduate Examination” at Jamia Millia Islamia, New Delhi; attended meeting of Board of Research Study of the Dr DY Patil Vidyapeeth University, Pune; attended the meeting at Banaras Hindu University, Varanasi on 12 July 2018; delivered guest lecture at AIIMS Bhopal on 29 June 2018; invited by UGC team to visit Manav Rachna Dental College (MRDC) regarding inclusion of the college under the ambit of the Manav Rachna International Institute of Research Studies, Faridabad (Haryana); Expert to ICMR to review the research projects in the field of Oral Health and postgraduate research grants; invited by Doordarshan to participate in “Oral Health” programme; made significant contribution to WHO, National Oral Health Programme and as advisor to government of India on National Oral Health Policy; Under National Oral Health Programme, the following activities were done: (i) Renewal of the MoU between AIIMS, New Delhi and Ministry of Health and Family Welfare with revised activities under the National Oral Health Programme; (ii) Supervised the Edant Seva-Content upload, designing, review, validation and feedback collection from May to December 2018; (iii) Supervised the team for the School Based Sealant Programme
from May 2018 to present; (iv) Lead the team for recruitment of Research manpower under NOHP; (v) Supervised the development of mobile app under NOHP October 2018 to present; (vi) Lead the team for organising and setting up of oral health booth during the 63rd Institute Day of AIIMS New Delhi and was awarded “Best Exhibit”; (vii) Supervised the development of New IECs for risk groups- Pregnant women, infants and Populations with Special Health needs; (viii) Lead the team for the scientific presentation on IEC and Innovation in NOHP in the 23rd National Conference of Indian Association of Public Health Dentistry in November 2018 and was awarded “Second Best Innovation” for Oral Health Promotion; (ix) Awarded Best Outreach Programme to CDER AIIMS, New Delhi for activities under NOHP at the Annual Conference of International College of Dentists Section VI, December 2018; (x) Lead the team for Training the Medical Officers of NCD Cell Rajasthan on oral Cancer Screening and Tobacco Counselling in December 2018.

Professor Ritu Duggal was member of Project Review Committee in the field of Oral Health is scheduled to be held on 20 March 2019 at 10.00 AM at CG Pandit Board Room, ICMR Hq, New Delhi; Panelist for CME in Orthodontics at Jamia Millia Islamia, Maulana Mohammad Ali Jauhar Marg, New Delhi on 25 January 2019; Expert for Post Graduate Board of Studies in Orthodontics to be held in Department of Orthodontics, PGIDS on 27 December 2018; Expert for the Commission in the Interview Board for the Post of Public Health Dentist to be held in UPSC, Dholpur House, Shahjahan Road, New Delhi on 26 October 2018; Expert Member of the Selection committee on 30 October 2018 at IIT-Delhi Hospital; Appointed as Council’s Inspector for MDS-Renewal 2nd year in the Department of Orthodontics and Dentofacial Orthopedics at Ludhiana (Punjab) on 5-6 September 2018.

Professor Ajoy Roychoudhury was conferred fellowship of National academy of Medical Sciences, India; Reviewer for following indexed journal British Journal of Oral and Maxillofacial Surgery, National Medical Journal of India, Dental Traumatology and National Journal of Oral and Maxillofacial Surgery; Dental Council Inspector to verify the teaching, infrastructure facility of various dental college in India providing postgraduate education; Also has been in the committee of MOHFW to review the decisions of Dental Council of India pertaining to recognition to various Dental Colleges in India; served as an expert at selection committee at SGPGI Lucknow.

Professor Ongkila Bhutia has been appointed as Chairperson HICC (Hospital infection control committee) CDER; was nominated as member in the committee (Dental Expert) for Hon’ble Supreme Court case trial, 2018; Has been in the committee of MOH&FW to review the decisions of Dental Council of India pertaining to recognition to various Dental Colleges in India; was appointed as inspector for starting MDS course (Oral and Maxillofacial) in Patna AIIMS, 25 October 2018; Member of Organizing Committees and course Faculty at AIIMS Orthonagthic Surgery Workshop on 26 November 2018.

Dr Ajay Logani was President of the Indian Society of Traumatology (2017-2020).

Dr Vijay Prakash Mathur received Founder President M Rahmatullah Award for outstanding contribution to the progress of Indian Society for Dental Research and distinct contributions in the field of Dental Research; Professor Hari Parkash Oration Lecture for the year 2018-2019 at ITS Centre for Dental Studies and Research, 7 December 2018, Ghaziabad; Vice President- Indian Society for Dental Research (IADR-India Division) (2017-2019); Vice President, Indian Society for Dental Traumatology (2018-2020); Hon. Treasurer, Indian Society of Pedodontics and Preventive Dentistry (2019-2020); Scientific Editor, Journal of International College of Dentists (Section VI) (2019-2020); Editor in Chief, Journal of South Asian Association of Paediatric Dentistry (2018-2021).

Dr Dalim Kumar Baidya: For details please see 9.1 Anaesthesiology.

Dr Devlina Goswami: For details please see 9.1 Anaesthesiology.

Dr Prabhat Kumar Chaudhari was appointed as a member of the IADR Membership and Recruitment Committee for a three-year term (2018-2021) by The IADR Board Operations Committee, International and American Associations for Dental Research, USA; Working as Assistant Editor of Journal Pierre Fauchard Academy-India Section published Elsevier India; Fellow-Member of World Federation of Orthodontists (Membership ID: 14016802); Fellow of Pierre Fauchard Academy-India section (2018); International Fellow, Italian Orthodontic Society (SIDO) (2019); International member of American Cleft Palate and Craniofacial Association (ID-94260).

Dr Nitesh Tewari was awarded Best Original Research Award (Third Place) at World Congress of Dental Traumatology, 15-18 October 2018 San Diego, USA; Awarded Fellowship of Academy of Dentistry International, USA; Outstanding Pedodontist Award 2018 by Craniofacial and Dental Research Foundation, India at 4th International Craniofacial and Dental Summit in Kandy, Sri Lanka on 12 December 2018; Fellowship of Japan Dental Association for the year 2019; Appointed as Standing Committee Member for Information and Newsletter Committee of International Association of Dental Traumatology Elected as Executive Committee Member of Craniofacial and Dental Research Foundation in December 2018; Appointed as Assistant Editor, Restorative and Paediatric Dentistry section in Journal of Oral Biology and Craniofacial
Research in December 2018; Appointed as Editor of Smile Times-Pedo Official newsletter of Indian Society of Pedodontics and Preventive Dentistry.

Dr Shalini Gupta was Member Project Advisory Committee (PAC) of the ICMR Task Force study titled “Screening and early detection of cervical, breast and oral cancer” in the Dibrugarh, Assam: A demonstration project in TATA Tea gardens by ICMR New Delhi; Technical expert “Oral cancer Screening APP development” by Ministry of Health and Family Welfare (MoHFW) a Non-Communicable Disease; Technical Advisory Group (NCD TAG); Technical Expert “E Dant Seva app development” by CDER for Ministry of Health and Family Welfare (MoHFW); Technical expert “Oral cancer screening online training module ECHO” conducted by NICPR; Technical expert for development of MOOCS for oral health promotion by WHO.

Dr Kunal Dhingra was awarded Membership of prestigious Constitution Committee of American/International Association for Dental Research (USA); Awarded Fellowship of prestigious Pierre Fauchard Academy-India Section, Awarded Membership of Education Research and Evidence based dentistry groups of the American/International Association for Dental Research (USA)

Dr Vikender Singh was appointed as Secretary of Dental Surgeons Association of India, Gurugram Branch in April 2018.

Dr Harsh Priya was awarded best Scientific Paper on the study entitled “Effectiveness of a Web Based Learning Module on the Oral Health Promotion for Nursing Professionals” at the 23rd Annual Conference, Indian Association of Public Health Dentistry on 30 November-2 December 2018 at Divya Jyoti Dental College, Modinagar; Second Prize, Best innovation at the 23rd Annual Conference, Indian Association of Public Health Dentistry on 30 November-2 December 2018 at Divya Jyoti Dental College, Modinagar; Awarded membership of National Academy of Medical Sciences; Organised and Coordinated for an Five Day Observer ship Programme with the Sri Lankan Dentists for Screening for the Potentially Malignant Disorders and Oral Cancers from 3 to 5 December 2018 at CDER, AIIMS, New Delhi and NICPR, NDDTC, IRCH and WHO Country Office; Regional Review Meetings of the State Nodal Officers of National Oral Health Programme of South Zone in Chennai (23 October 2018), West Zone in Ahmedabad (10 December 2018), East Zone in Shillong (31 January 2019) and North Zone in Chandigarh (15 February 2019); Technical inputs for eDant Seva were presented in all the meetings; Member of the committee for the drafting of the National Oral Health Policy 2018; Coordinated with Professor Zohoori Vida, Professor in Public Health and Nutrition from Teesside University for Collaboration on Fluoride Research thorough Chief Medical Officer of NPPCF, Department of Anatomy, AIIMS and Dr AK Susheela, Director, Fluorosis Research and Rural Development Foundation, New Delhi; Technical expert for developing an oral health website and mobile application named eDant Seva.

Dr Deepika Mishra was Reviewer in Journal of Oral Pathology and Medicine and Tumor Biology; Invited as a resource person in the Oral Cancer screening programmes at National Institute of Cancer Prevention and Research, Noida and National Institute of Health and Family Welfare, Delhi several times 2018-2019; Chaired scientific session and judged poster presentations in 27th National conference of Indian Association of Oral and Maxillofacial Pathology at Amritsar on 17 November 2018; I was also a resource person in Hands on workshop on oral cancer screening in association with CDER AIIMS at NICPR, Noida; Appointed as member of medical board of AIIMS for medical examination (Age estimation) as an expert in forensic odontology several times.

VISITING SCIENTISTS

1. Dr Stephen Chu, Associate Clinical Professor, Department of Orthodontics, College of Dentistry, Dallas, Texas, USA, Interactive lecture, 7 August 2018, CDER AIIMS, New Delhi
2. Dr Varun Kalra, Clinical Associate Professor, School of Dental Medicine, Pittsburgh, USA
3. Dr Alexander Rendayan, Clinical Associate Professor of Restorative Sciences and Biomaterials, Boston University, USA
4. Dr Rajeev Agarwal MD, DM (Nephrology) Paediatrics Consultant, Agave Paediatrics, Arizona, USA
5. Dr Yasutaka Yawaka, DDS, PhD Professor and Head, Dentistry for Children and Disabled Persons, Department of Oral Functional Science, Hokkaido University Faculty of Dental Medicine, Sapporo/Hokkaido, Japan
6. Dr Aws Alani Consultant and Programme Director, Restorative Dentistry, King’s College Hospital (NHS Foundation Trust), London, UK
7. Dr Ujjal Kumar Bhawal, Assistant Professor, Department of Biochemistry and Molecular Biology, Nihon University Dental School, Matsudo, Japan.
8. Dr Anoop Sondhi, Guest Lecture, 8 October 2018, CDER AIIMS, New Delhi
### 10.3. Dr BR Ambedkar Institute Rotary Cancer Hospital

**Professor and Chief**  
GK Rath  
(Radiation Oncology)

<table>
<thead>
<tr>
<th>Professors</th>
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<tbody>
<tr>
<td>Subhash Chander</td>
<td>Lalit Kumar</td>
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<td>Sanjay Thulkar</td>
<td>Sushma Bhatnagar</td>
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<td>(Radiodiagnosis)</td>
<td>(Anaesthesiology)</td>
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<td>Seema Mishra</td>
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<td>Sanjeev Kumar Gupta</td>
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<td>Chandershkekara SH</td>
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<td>Ajay Kumar Gogia</td>
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<td>Sameer Rastogi</td>
<td>Raja Pramanik</td>
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<td>Ritesh Kumar</td>
<td>Rambha Pandey</td>
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<tr>
<td>Ekta Dhamija</td>
<td>Thoudam Debraj Singh</td>
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<tr>
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<tr>
<td>Satish Kumar Singh</td>
<td>Padam Singh</td>
<td>Arvind Kumar Sharma</td>
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**Total staff**

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<tr>
<td>Faculty Members</td>
<td>44</td>
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<td>Group ‘A’ Official</td>
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<td>Resident doctors</td>
<td>107</td>
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<tr>
<td>Group ‘B’ Official</td>
<td>438</td>
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AIIMS 2018-19 / 588
HIGHLIGHTS

Onco-Anaesthesia and Palliative Medicine

The Unit of Anaesthesiology was upgraded to Department of Onco-Anaesthesia and Palliative Medicine in June 2015. The department has six well trained faculties (Dr Sushma Bhatnagar, Dr Seema Mishra, Dr Rakesh Garg, Dr Nishkarsh Gupta, Dr Vinod Kumar, Dr Sachidanand Jee Bharati) and provide services to anaesthesiology, critical care, pain and palliative medicine. All of them are professionally qualified anesthesiologists and critical care physicians and have gained experience as palliative care personnel in the advanced cancer patients referred for pain and other symptom management.

The mission of the department is to provide state-of-art and comprehensive care for patients with cancer with both curative and palliative intent. It includes services for various diagnostic interventions, surgical procedures, pain and palliative procedures. The department provides round the clock services for acute and chronic pain management. The department has six bedded intensive care unit which provides care for critically ill patients and six bedded palliative care ward for palliative care of oncology patients. The department has its regular academic activities and also pursuing various research activities in the fields of Cancer Pain, Palliative Care and Perioperative Medicine for proposed benefits for the patient. The department has developed protocol and has structured SOPs for better patient management. The department organizes CMEs, conferences and workshops on regular basis. The department provides its services at National Cancer Institute-AIIMS as well and formulated various protocols for it.

Delhi Cancer Registry

The Delhi Cancer Registry is a Population Based Cancer Registry which collects cancer patient’s data from more than 172 government or private hospitals/centers and 250 nursing homes and vital statistics division of MCD and NDMC and reports the incidence of various cancers among Delhi Urban residents. When the registry was established in 1988 it has registered 5,854 new cancer cases and over the years the new cancer incidence has been increasing and in 2014 the registered incidence was 20,446 cases. The common sites of cancer among Delhi males are lung, mouth, prostate, tongue and larynx and in females the common sites of cancer are breast, cervix, ovary, gallbladder and corpus uteri. The reports prepared by registry are being widely used by researchers, government organization etc.

Laboratory Oncology

Laboratory Oncology Unit, Dr BRA IRCH, AIIMS, New Delhi had organized the 11th TCS (The Cytometry Society-India) annual conference and workshop from 29-30 October 2018. In addition, a 2 day workshop was organized from 31 October to 1 November 2018 in MRD analysis, Transplant Immunology, multi-parametric flow cytometry and cell sorting.

Medical Oncology

The Department of Medical Oncology have been able to maintain a high-level academic programme and good clinical services—Both ‘in patients’ and ‘outpatients’. In addition to DM (25 students) and PhD (7 students) programme, department attracts students from National Science Academies and other national universities for summer training programme. We have been able to motivate recently joined faculty members to write research grant proposals; two such grants from ICMR and DST have been awarded in the current year for rupees worth one crore. In addition to academic presence of colleagues in various national and international meetings, department (they) have contributed to provide expert opinions in various government agencies projects meetings, served as member of expert panels for faculty selection and as examiners for PhDs and DM in various universities. Department has also started new services-serum LDH estimation, quantitative RT-PCR for BCR-ABL estimation to define molecular remission in patients of chronic myeloid leukemia. We are making efforts to expand lab services for patients care as well. Department also conducted a second national meeting (CME) on ‘Lung Cancer’ from 19-20 November 2018. All this was possible with hard work, and sincere efforts put up by all the members of the department. Space crunch continues to be a limitation for clinical research staff and for the lab.

There is a significant increase in the no. of patients treated in our department.

<table>
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<tr>
<th>S. No.</th>
<th>Item</th>
<th>2017-2018</th>
<th>2018-2019</th>
<th>% Increase</th>
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<tbody>
<tr>
<td>1.</td>
<td>Patients treated as in-patient</td>
<td>9,194</td>
<td>11,965</td>
<td>30.1</td>
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<td>2.</td>
<td>Patients treated in day care facility</td>
<td>29,801</td>
<td>34,440</td>
<td>15.6</td>
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<td>3.</td>
<td>Medical procedures</td>
<td>5,972</td>
<td>6,830</td>
<td>14.4</td>
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<td>4.</td>
<td>Outpatient chemotherapy</td>
<td>14,574</td>
<td>15,943</td>
<td>9.4</td>
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<tr>
<td>5.</td>
<td>Outpatient IV antibiotics</td>
<td>25,303</td>
<td>32,541</td>
<td>28.6</td>
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<td>6.</td>
<td>Hematopoietic Stem Cell Transplantation</td>
<td>105</td>
<td>115</td>
<td>9.5</td>
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</table>
Aphaeresis lab (2018-2019)

- PBSC harvests: 231
- SDP apheresis: 2,600
- Granulocyte aphaeresis: 62
- Haemogram testing: 24,002

Medical Physics

Medical Physics Unit, Dr BRA IRCH undertakes registration of radiation emitting diagnostic and therapeutic x-ray machines used in various departments of AIIMS including Departments of Radiodiagnosis, Cardiac-radiology and Neuro-radiology. In addition, we perform radiation safety survey, quality assurance tests of x-ray imaging devices, accessories and gadgets and train the personnel in safe use of radiation in medicine. We also give services to the departments using radioactivity for laboratory investigations, research and patient care by providing consultation regarding radiation safety of staff and public. We give consultation in case of inadvertent exposure to pregnancy during x-ray investigations. During 2018-2019 we carried out 4,017 measurements, tests, experiments and radiation sterilization of blood bags for blood transfusion.

Radiodiagnosis

Department took keen interest in formulating the protocols for radiology department functioning of National Cancer Institute, Jhajjar. Numerous meetings and physical on-site inspection was done at Jhajjar for inspecting the installation of Ultrasoundography, Fluoroscopy machines as well as CT and MRI machines at NCI Jhajjar. The department held multidisciplinary discussions/tumor boards specifically addressing gastrointestinal malignancies, lung cancer and sarcoma on Saturday and Wednesday (forenoon and afternoon), respectively. In addition, there was active participation in organizing workshops with other departments of national and international conference during this year.

Surgical Oncology

All the faculty members participated in the under/post graduate teaching and structured training of 27 senior residents including 16 MCh student and 11 non-academic senior residents along with MCh teaching / training and thesis work. The faculty acts as co-guide in thesis work of various department including Radiation Oncology, Medical Oncology, Biochemistry and Biotechnology Geriatric medicine etc. The Department organized a Cadaver workshop on breast oncoplasty in collaboration with University Hospital North Midland (UK) and the Annual Conference of the Association of Breast Surgeons of India (ABUSICON 2018). The faculty participated in National and International conferences by giving lecture, panel discussion and educational videos. The department have presented 20 papers in National and International conferences and involved in 13 funded research projects, 15 departmental projects and 11 collaborative research projects. A total of 25 original articles were published. The department runs special cancer clinics for breast cancer, gastrointestinal cancer, head and neck cancer, gynecological cancer, bone and soft tissue tumors, thoracic cancer, hepatobiliary-pancreatic cancer and genitourinary cancer. A total of 1,592 complex major operations and 10,477 minor operation and various diagnostic and therapeutic endoscopy procedures were performed during the year. Faculty participated in community services by giving advice to ostomates, giving talk in All India Radio, television and participating in cancer awareness camps. The faculty members were involved as members of editorial boards, reviewer and members of national and international bodies. The faculty members acted as examiner for MCh Surgical Oncology and MS Surgery examinations of various medical collages and institutions.

EDUCATION

Onco-Anaesthesia and Palliative Medicine

The department is running successfully runs two academic courses: DM and MD. First batch was admitted in January 2016. The department also organizes certificate course in Palliative Care twice a year in the month of June and November and Foundation course on Palliative care once in a year in the month of March. The department started ‘Pain Policy’ at IRCH, AIIMS. The aim of the policy is its commitment to treat pain of all registered patients. Department is Nodal Center for conducting Indian Association of Palliative Care’s Certificate Course in Palliative Care twice in a year.

Laboratory Oncology

Laboratory Oncology provides morphology, myeloma and flow cytometry training to junior and senior residents from Pathology, Paediatrics, Lab Medicine, Hematology and Medical Oncology. Short-term training is given to Middle and Younger level faculty and academic students from various colleges all over India.

Medical Oncology

The department is involved in teaching and training of DM students. Department participates in teaching other postgraduates student of other specialties as well. 2 PhD students (Mohsin Maqbool and Anudishi Tyagi) have been awarded doctoral degree.
**Medical Physics**
Medical Physics Unit imparted training and education regarding Physics of medical imaging, radiation protection, radiation dosimetry and quality assurance in medical imaging to the students of MD Radiology, MD Radiotherapy, MBBS, and BSc (Hons.) in Radiography and Nursing. At present department is providing training to 3 PhD students.

**Radiodiagnosis**
Faculty participated in undergraduate, postgraduate and super specialty teaching, radio-conferences, tumor board meeting, Clinical Combined Rounds, Clinical Grand Round. Faculty had also participated in the various symposiums and CMEs held in IRCH and institute.

**Surgical Oncology**
The faculty was involved in undergraduate teaching by giving didactic lectures and by participating/moderating seminars on oncological topics. The faculty was involved in teaching and training of 16 MCh surgical oncology students and 11 surgical oncology senior residents, DM medical oncology residents and MD radiotherapy junior residents by giving didactic lectures, moderating seminars, journal clubs etc. and clinical teaching during ward rounds and in special cancer clinics of IRCH. Faculty acted as chief guides and Co-guides in the thesis of MCh surgical oncology students. They also acted as Co-guide and Co-supervisors in DM medical oncology thesis, MD radio diagnosis MD radiation oncology thesis and PhD students from different dept. of BRA IRCH and AIIMS. The faculty was also involved in teaching and training of dental surgery residents and MCh students from RCC, Thiruananthapuram who are posted on one month rotation and rotation of MCh Gynecology Oncology trainee from Department of Obstetrics and Gynecology. The faculty was involved in the teaching of the MSc nursing oncology students. Dr Jagjit Pandey Assistant Professor, AIIMS, Patna visited the Department of Surgical Oncology, AIIMS, New Delhi as visiting faculty. Seven Maxillofacial Surgeons from Sri Lanka underwent observership programme at Department of Surgical oncology, AIIMS.

**CME /Workshop/Symposia/National and International Conference**

**Onco-Anaesthesia and Palliative Medicine**
1. 16th Foundation Course on Palliative Care, March and November 2018, AIIMS, New Delhi
2. IAPC certificate course in Palliative Care, June and November 2018, Dr BRA IRCH, AIIMS
3. Palliative Care Training Programme for Cancer Treatment Centers in India, 16-20 January 2018, 12-16 January 2019, Delhi
4. World Hospice Day, 8 October 2018, Dr BRA IRCH, AIIMS
5. Training Course on IASP Advanced Certificate Programme in Evidence Based Pain Management, AIIMS
6. IASP Ultrasound Workshop 2018, Ultrasound Guided Interventions-Diagnostic and Therapeutics, World Congress on Pain-2018, 15 September 2018, MICROSOFT Boston, USA

**Delhi Cancer Registry**
1. Workshop on Cancer Registration System, 2 May 2016, New Delhi

**Radiation Oncology**
2. International Conference on Translational research-Recent development in Human Health and Agricultural research, 11-13 October 2018 at Goa

**Surgical Oncology**
1. Delhi Cancer Registry—NCDIR workshop on Cancer Registration, 2 May 2018, AIIMS, New Delhi
2. ABSICON 2018—Annual Conference of Association of Breast Surgeon of India, 9-11 November 2018, AIIMS, New Delhi
3. AIIMS-UK Breast Oncoplasty Workshop and cadaver Course, 12 November 2018, AIIMS, New Delhi

**Laboratory Oncology**
1. 11th TCS Annual Conference and Flow Cytometry Workshop-2018 from 29 October to 1 November 2018 at AIIMS, New Delhi
1. MEDINSPIRE, 14-17 February 2019, Mumbai
2. Plenary Speaker, 34th Annual Conference of Indian Society for Study of Pain, 1-3 February 2019, Bengaluru
3. IAPC Course, 27 January 2019, AIIMS, Rishikesh
4. 70th Indian Pharmaceutical Congress to be held at Amity University Campus, 21-23 December 2018, Delhi NCR
5. IASP Council meeting and PA South African Pain Academy Meeting, 28 November to 1 December 2018, Cape Town, South Africa
6. IAPC Course, 17-19 November 2018, AIIMS, Patna
7. ISMPOCON 2018, 16 November 2018, Jaipur
8. IAPC Course, 12-13 November 2018, AIIMS, Rishikesh
9. CME of Pain and Palliative Care, 3 November 2018, Lucknow
10. International Conference and workshop on recent advances in pain (ICRA-Pain 2018), 29 September 2018, Jammu
11. 20th ISACON, 22-23 September 2018, Rajasthan
12. Annual Conference of Association of Radiation Oncologist of India, 19 August 2018, Bikaner
13. 1st National Conference of the Society of Onco Anaesthesia and Peri-Operative Care (SOAPCCON), 17-19 August 2018, Mumbai
14. Lead Mentor, 2nd Palliative Care Training Programme for Cancer Treatment, 13 August 2018, Bhopal
15. Lead Mentor, 2nd Palliative Care Training Programme for Cancer Treatment, 24-25 July 2018, AIIMS, Jodhpur
16. Lead Mentor, 2nd Palliative Care Training Programme for Cancer Treatment, 28 July 2018, Gwalior, Bhopal
17. Visit for planning discussions related to the Palliative Care Programme for cancer treatment centre-APHN and AIIMS, 18-20 May 2018, Singapore
18. Workshop on Palliative Care Implementation, Launch Symposium of the Lancet Commission on Palliative Care, 5-6 April 2018, Miami, USA
19. 6th Training of Trainers in Palliative Care Programme, 22-28 March 2018, Bangladesh
20. 6th Biennial Scientific Meeting, 17-18 March 2018, Putrajaya, Malaysia
21. IASP meeting, International Association for the Study of Pain Meeting (IASP), 25-27 February 2018, Lisbon, Portugal
22. 22nd International Conference on Frontiers in Yoga Research and its application (INCOFYRA) at Vivekananda Yoga Anusandhana Samsthana (VYASA) (IAPC), 5-8 January 2018, Bengaluru

Seema Mishra

1. EOL and terminal sedation, IACA Course, 17 September 2018, IRCH, AIIMS, New Delhi
2. Panel discussion on Safe use of opioids, ICRA-PAIN 2018, 28-30 September 2018, Jammu
4. Lymphedema Management, 18th Annual Foundation Course in Palliative Care will, 20-21 November 2018, JLN AIIMS, New Delhi
5. Ethical issues in palliative care, Indian Association of Palliative Care Certificate Course Programme, 10-11 November 2018, IRCH, AIIMS, New Delhi
6. Paediatric palliative care, Indian Association of Palliative Care Certificate Course Programme, 10-11 November 2018, IRCH, AIIMS, New Delhi
7. Cancer pain Syndromes, ISSPCON 2019, 31 January-3 February 2019, Bangalore
8. Communication session, 26th International Conference of Indian Association of Palliative Care and Pre-Conference Workshop, 7-10 February 2019, Kochi, Ernakulum, Kerala
11. Breaking bad news, Nursing update, 22 March 2019, AIIMS, New Delhi
Rakesh Garg

4. Nutrition in Cancer Patients; Final Days and Last Hours of Living, 18th Annual Foundation Course in Palliative Care, 20-21 November 2018, Delhi
5. Extubation Guidelines of ADAAA; Airway management of Laryngo-tracheal Surgery, NAC 2018: 9th Annual National Airway Conference of All India Difficult Airway Association (AIDAA), 7-9 September 2018, Delhi
6. Moderator: Dr Rakesh Garg; Strategies for opioid sparing and Oncoanesthesia, 1st National Conference of Society of Oncoanaesthesia and Perioperative Care (SOAPCON 2018), 17-19 August 2018, Mumbai

Nishkarsh Gupta

1. ERAS in oncology surgeries, SANCON 2019, 14-17 March 2019, Society of Anaesthesia, Kathmandu, Nepal
2. Workshop on difficult airway, SANCON 2019, 17 March 2019, Society of Anaesthesia, Kathmandu, Nepal
4. Palliative care for GI symptoms, Palliative Care: A Promise of Quality Life, 22 February 2019, AIIMS, New Delhi
5. Moderated a panel on Onco-Anaesthesia, ISACON 2018, 24-29 November 2019, ISACON, Agra
7. Faculty for USG guided regional workshop, CAUPRA US Workshop, 11-13 January 2019, Safdarjung Hospital, Delhi
8. ACLS workshop, 2nd International Conference on Medical and Health Sciences, 9-11 November 2019, Khesar Gyalpo University of Medical Sciences, Bhutan
11. Pharmacological approach to cancer pain management—Newer advances, RSACPCON 2018, 6-8 April 2018, Jaipur
12. Palliative care for GI symptoms, 18th Annual Foundation Course in Palliative Care, 20-21 November 2018 AIIMS, New Delhi

Vinod Kumar

1. Role of CPET in Oncosurgery, SANCON 2019, 14-17 March, 2019, Kathmandu, Nepal
2. Workshop on difficult airway, SANCON 2019, 17 March 2019, Kathmandu, Nepal
4. Palliative care for respiratory symptoms, Palliative Care: A Promise of Quality Life, 22 February 2019, AIIMS, New Delhi

Sachidanand Jee Bharati

1. Alternative Medicine in Palliative Care, Pain and Palliative CME cum Workshop, 29 April 2018, GMC Haldwani
2. Palliative Care in Advanced Lung Cancer, Lung Cancer Update, 12-13 May 2018, AIIMS, New Delhi
3. Panel Discussion: Environmental Determinants of Cancer, 1st Conference on Environmental and Occupational Determinants of Cancer Interventions for Primary Prevention, 26-27 May 2018, AIIMS, New Delhi
4. Three Selected Papers in Palliative and Supportive Care, Best of ASCO, 28-29 July 2018, AIIMS, New Delhi
5. Opioid Rotation and Methadone, Indo American Cancer Association Course, 26 September 2018, CanSupport, New Delhi
6. Workshop on USG guided Blocks and Cannulation, ISACONUK, 12-14 August 2018, AIIMS, Rishikesh
7. Oncological Emergencies, IAPC Course, 10-11 November 2018, IRCH AIIMS, New Delhi
8. Regional Anaesthesia for Breast Surgery, ABSICON 2018, 9-11 November 2018, AIIMS, New Delhi
10. Moderated panel on Practice Changing Publication in Pulmonary, Critical Care and Sleep Medicine, AIIMS PULMOCRIT, 2-3 March 2018, AIIMS, New Delhi

Delhi Cancer Registry
N Manoharan
1. Delhi Population Based Cancer Registry, Workshop on Cancer Registration System, 2 May 2018, New Delhi
2. Cancer Registry Programme in India, Principles and Practice of Cancer Control and Prevention for North Eastern States, 17 September 2018, New Delhi

Laboratory Oncology
Ritu Gupta
1. Minimal Residual Disease in B-Lineage Acute Lymphoblastic Leukemia, 15th advanced clinical flow cytometry workshop, 1-3 August 2018, ACTREC, TMC, Mumbai
2. (A) Minimal residual disease in Myeloma: A case based approach, (B) Advances in Clinical Flow cytometry: A user perspective, Session chair, Sir Ganga Ram Hospital, 24 August 2018, New Delhi
3. Molecular methods for Ig&TCR gene rearrangements and flow cytometry for MRD were discussed by leading International and National faculty, International update on Multiple Myeloma and plasma cell related disorders, 13-14 September 2018, Tata Medical Center, Kolkata
4. Association of Epigenetic alteration of Myosin Light Chain Kinase (MYLK) with Aggressive Clinical Course in Chronic Lymphocytic Leukemia, 34th Ernst—Klenk Symposium, Center for Molecular Medicine, University of Cologne, 4-6 October 2018, Cologne, Germany
5. Challenges in Myeloma MRD Reporting in Indian Setting: Consensus Building, 11th TCS Annual Conference and Flow Cytometry Workshop—2018, 29 October to 1 November 2018, AIIMS, New Delhi
6. Molecular Monitoring in CML, 2nd Annual Conference of Research and Education Society of Medical Oncology, AIIMS, November 2018, New Delhi
7. Molecular aberrations in Multiple Myeloma, Sunpharma Science Foundation’s International Symposia, 30 January 2019, New Delhi

Sanjeev Kumar Gupta
2. Flow cytometry in oncology, Lectures of radiotherapy and allied subjects-(Radiation Oncology Department), 4 September 2018, New Delhi
3. MRD interesting case presentation, 11th Annual the Cytometry Society Meeting and Workshops, 29 October-1 November 2018, New Delhi
4. Ethical Dilemma in health research in low income countries, in workshop on Ethics in research, 4th International Conference on Medical and Health Sciences 2018, 9-11 November 2018, Thimphu, Bhutan
5. ‘Emergence of Cancer as Public Health Issue’—Moderated the panel discussion, 4th International Conference on Medical and Health Sciences 2018, 9-11 November 2018, Thimphu, Bhutan
7. Molecular testing in ALL, Delhi Hematology Group Meeting, 5 March 2019, New Delhi

Anita Chopra
1. Panel discussion on Mixed Phenotype Acute Leukemia, NIPOF, 25 February 2019, New Delhi
2. The evolving role of MRD in the management of Paediatric AML, NIPOF, 25 February 2019, New Delhi
3. Comprehensive transcriptome analysis in T-ALL, Clinical Genomics in Molecular Haematool Oncology, 1-2 March 2019, New Delhi
4. Peripheral blood involvement in AITL, T-NK Cell Workshop, 12 February 2019, Hyderabad

Pranay Tanwar
1. Cancer Cervix: Prevention, Cancer Awareness Meeting, CSOI, 8 April 2018, New Delhi
2. Prevention of cervical cancer: Screening and Vaccine, Rotary Cancer Awareness Seminar, Sonipat, 3 November 2018, Sonipat
4. An update Cervical Cancer Vaccine, Sant Parmanand Hospital, 14 February 2019, New Delhi

Gurvinder Kaur
2. Implications of dysregulation of miRs in CLL, Sun Pharma Science Foundation’s International Symposium on Advances in Immunomics and Immune Oncology Immunomic, 30 January 2019, New Delhi

Deepshi Thakral
2. Evolving landscape of bio-medical research in india (Moderator), 1st Annual Meeting and Symposium—AIIMS Scientists Association (ASA), 19 January 2019, Board Room, AIIMS, New Delhi

Medical Oncology
Lalit Kumar
1. International Academy of Haematology at Paris (France), 27-29 September 2018, Paris, France
2. Myeloma Meet’—By Tata Medical Centre, 16 September 2018, Kolkata
3. 59th Annual Conference of the Indian Society of Haematology and Blood Transfusion, 26-27 October 2018, Kochi, Kerala

Atul Sharma
1. Conducted a panel discussion on GI Cancer, Best of ASCO, 6 July 2018, Coimbatore
2. Panel discussion on best of ASCO abstracts in GI Cancer (Non CRC), ISCO (Indian Society of Clinical Oncology), 28 July 2018, Delhi
3. Panel discussion on Best of ASCO abstracts in Head and Neck Cancer, ISCO (Indian Society of Clinical Oncology), 28 July 2018, Delhi
4. Panel discussion on Anti VEGF: Works irrespective of sidedness and mutational status in mCRC, Symposium and Round Table Meeting, 3 July 2018, Delhi
5. Second Line Systematic Chemotherapy Gastric Cancer, Update on Gastric Cancer, 25 August 2018, Kolkata
6. Current state of adjuvant therapies in Biliary Tract Cancer, 1st Midyear Gastrointestinal Oncology Conference, 1 September 2018, Ahmedabad
7. Case Based discussion—Multiple Myeloma: Unique Presentation and their Mangement Challenges, Indian B-Cell Malignancies Conclave, 2 September 2018, Mumbai
8. Prevention of Chemotherapy induced cardiotoxicity, Cardiovascular Research Convergence 2018, 14 October 2018, Delhi
9. Nasopharyngeal cancer and optimal placement of chemotherapy in adult, 18th NATIONAL Meet of the Foundation of Head and Neck Oncology (FHNOS) and Internatinal Federation of Head and Neck Oncologic Societies (IFNOS) World Tour 2018, 26-28 October 2018, Kolkata
10. All patients should receive adjuvant therapy in stage 2 colon cancer, Panel Discussion—HCC, Indian Society of Medical and Paediatric Oncology)—ISMPCON-2018, 16-17 November 2018, Jaipur
11. Chosing Patients for Chemotherapy in Biliary Malignancies/Panell Discussion Integration of Medical, Surgical, Oncology Carcinoma Gallbladder, 59th Annual Conference of Indian Society of Gastroenterology, 30 November-1 December 2018, Kochi, Kerala
13. Chemotherapy induce diarrhea, Multi-Disciplinary Approach to Cancer, 5 December 2018, Chennai
15. Current Status and Success of Immuno-Oncology in Solid Cancers, Sun Pharma Science Foundation, 30 January 2019, Delhi
16. Locally advance/High risk Gall Bladder Cancer—Debate, Evidence based management of Cancers in India EBM 2019 (TMC), 28 February-3 March 2019, Mumbai
17. Debate High risk Gallbladder cancer v/s Neoadjuvant therapy, Evidence based management of Cancers in India EBM 2019, 2 March 2019, Mumbai
18. Moderated panel discussion on Colorectal Cancer, 2nd Annual International Review in Gastrointestinal Cancers 2019, 9 and 10 March 2019, Mumbai
19. Immunotherapy in hepatocellular Carcinoma and Hematolymphoid Malignancies (Leukemia), 1st Immuno-Oncology India Congress—2019 Tata Memorial Center (Mumbai), 14-17 March 2019, Mumbai

Sameer Bakhshi

1. Imaging in Oncology, MedImg: 4th Annual Workshop on Medical Imaging Techniques, Post Processing and Clinical Applications, 15 April 2018, New Delhi
2. Ethical Considerations in Alternative Therapy, Institute Celebrations for the Fourth International Day of Yoga (IDY-2018), 18 June 2018, New Delhi
3. Advances in Cancer Medicines, 110th Orientation Programme of UGC-Human Resource Development Centre, Jawaharlal Nehru University, 31 July 2018, New Delhi
4. Epidemiology of Soft Tissue Sarcoma in India, Soft Tissue Sarcoma Symposium, 18 August 2018, New Delhi
5. Clinical trials in TYA patients-unique challenges, 7th Annual Conference of the Teenage and Young Adult Cancer, 1 and 2 September 2018, Chennai
6. IIMS data presentation on Sarcoma in Teen and Young Adults, 7th Annual Conference of the Teenage and Young Adult Cancer, 1 and 2 September 2018, Chennai
8. Advancements in cancer therapeutics in the last decade, 45th National Conference of Association of Clinical Biochemists of India, 26 to 27 October 2018, Goa
9. Treatment options and outcome in relapsed Ewing’s sarcoma, 22nd Annual PaediatricHaematolgy Oncology Conference, 30 November to 1 December 2018, Bangalore
10. Germ Cell Tumours: Chemotherapy, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
11. Thoracic Tumors: Chemotherapy, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
12. Chemotherapy, Immunotherapy and New Treatments in Oncology, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
13. Renal Tumours: Chemotherapy, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
14. Neuroblastoma: Chemotherapy, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
15. Non-Genitourinary RMS: Chemotherapy, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
16. Liver Tumours: Chemotherapy, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
17. Change of Nutritional Status During Chemotherapy and Factors Predicting Nutritional Status at 6 Month Interval, 11th International SIOP PODC Workshop on Nutrition in Children with Cancer, 18-19 January 2019, Chennai
18. Nutrition related toxicities in pediatric oncology in limited resources setting, 11th International SIOP PODC Workshop on Nutrition in Children with Cancer, 18-19 January 2019, Chennai
20. Treatment and Prevention of Cancer: A Clinician’s Perspective, World Cancer Day (Delhi Chapter of the Indian National Science Academy (INSA), 4 February 2019, New Delhi
22. Case based practical discussion for Paediatric Hematologists and Oncologists, 56th National Conference of India Academy of Paediatrics, 10 February 2019, Mumbai
23. Ethics in Biomedical Research, Workshop on Research Methodology, Writing and Communication for the residents, 5 March 2019, New Delhi
24. Role of stem cell therapy and immunotherapy in pediatric surgery, 12th Paediatric Surgery Update, 7 March 2019, New Delhi
25. Prognostic factors affecting local and distant failures in Osteosarcomas, 5th Annual National Conference of Indian Musculoskeletal Oncology Society (IMSOS) 2019, 8-10 March 2019, Kolkata
26. Melanoma: Updates in adjuvant therapy and Metastatic disease, 5th Annual National Conference of Indian Musculoskeletal Oncology Society (IMSOS) 2019, 8-10 March 2019, Kolkata
28. Osteosarcoma and Chondrosarcoma, 5th Annual National Conference of Indian Musculoskeletal Oncology Society (IMSOS) 2019, 8-10 March 2019, Kolkata
29. Paediatric and young Adult Bone and Soft Tissue Sarcoma, Paediatric Adolescent Young Adult Workshop—Beyond the scalpel, 10 March 2019, Kolkata
30. Osteosarcoma: AIIMS data, Paediatric Adolescent Young Adult Workshop—Beyond the scalpel, 10 March 2019, Kolkata
32. Metronomic Chemoethrapy vs Best Supportive Care in Refractory Paediatric Solid Tumors: A Randomized Controlled Trial, 1st AIIMS Research Day, 26 March 2019, New Delhi

Ranjit Kumar Sahoo

1. Quality of life in RCC, Dilemmas in RCC: Controversies to Consensus, 16 March 2018, New Delhi
2. Myelofibrosis: A case presentation, MPN Symposium, 27 April 2018, New Delhi
3. Making the Right choice in the Treatment of mCRC-Panel discussion, Right Choice Conclave, 21 July 2018, New Delhi
6. Tumor Board in Prostate Cancer (Panel), Tumor Board Meeting, 1 September 2018, New Delhi
7. Overview of Oral Cancer, ACSTP-O Course, NICPR, 6 September 2018, Noida
8. ICMR Guidelines on Cellular Therapy, 11th TCS Annual Conference and Workshops 2018, 29 October 2018, New Delhi
9. EQAS in FCM (Chairperson), 11th TCS Annual Conference and Workshops 2018, 30 October 2018, New Delhi
10. Key abstracts in Prostate Cancer presented at ESMO-2018, 2nd Annual CME on Key Highlights from the Annual Congress of ESMO 2018, 10 November 2018, New Delhi
11. Check point Inhibitors and Monoclonal antibodies in myeloma: Indian Experience, Sun Pharma Science Foundation Annual Conference, 30 November 2018, New Delhi
14. Multiple Myeloma: How do we monitor treatment outcome? ONCOCON, SRL Oncocare, 3 March 2019, New Delhi
15. A case-based discussion in Myeloma (Panel), ONCOCON, SRL Oncocare, 3 March 2019, New Delhi
17. Double HIT NHL—Upfront autologous transplantation in CR1, ISCTR-2019, 8 March 2019, CMC, Vellore
18. Precision Medicine in Oncology-Moderator, Department of Medicine Seminar, 13 March 2019, AIIMS, New Delhi
20. FLT3 Mutated AML (Panel), FLT3 Inhibitors in AML, 26 March 2019, New Delhi
Sameer Rastogi
2. Recent advances in soft tissue sarcoma, Asia Pacific Annual Muskuloskeletal Society conference, 6 October, Jaipur
3. Recent advances in Soft tissue sarcoma, Indian Society of Medical and Paediatric Oncology (ISMPOCON 2018), 16 November 2018, Jaipur

Prabhat Singh Malik
1. Prognostic factors in NSCLC, ASCO-ISSLC Lung MCMC, 24-25 March 2018, Chandigarh
2. Participated as member, Annual Meeting of the National Cancer Grid, 5-6 May 2018, Mumbai
3. First-line treatment in mutation negative NSCLC, Lung Cancer Masterclass, 22 July 2018, Mumbai
4. Cancer Genetics and Immunology, 58th Annual Conference of the National Academy of Medical Sciences, 27 October 2018, Pondicherry

Raja Pramanik
1. Organ preservation protocols in laryngeal cancer, International Head and Neck Dissection Course: 7th AIIMS Course, Department of Otoaryngology-Head and Neck surgery, JPNATC, AIIMS, 26 March 2019, New Delhi
2. Panel discussion on Head and Neck Cancers, Melanoma, sarcoma, 1st Immuno-Oncology Society of India Congress, 15-17 March 2019
3. Panel discussion on PTCL and Hodgkins Lymphoma, International CME on Lymphoma, AIIMS, 6 March 2019, New Delhi
4. Panel discussion on molecular testing in colon cancer, ONCOCON 2019, 3 March 2019
5. Panel discussion on cancer survivorship, ONCOVISION 2019, 23-24 February 2019
6. Panelist: Personalized medicine in HN cancers, 4th MOSCON (Molecular Oncology Society of India Conference), 2019, 16-17 February 2019
7. Conducted quiz for post-graduates, Panelist in ALL panel discussion, Hemaology update 2019 conducted by Delhi Hematology Group and RESMO, 15-16 February 2019, New Delhi
8. Panel discussion on Personalized medicine: Hope or hype, 4th Indian Cancer Genetics Conference, 8-10 December 2018
10. Review of important abstracts on head and neck cancers, ESMO highlights 2018, 10 November 2018
11. Conducted workshop on Breast cancer genetics, Speaker: A) HBOC, its importance, tools, guidelines and pedigree drawing
12. AIIMS data, 7th ABSICON, Association of Breast Surgeons of India Conference, 9 November 2018, AIIMS, New Delhi

Sachin Khurana
1. Panel discussion on “Cross talk between immunotherapy, chemotherapy and targeted therapy in metastatic lung cancer”, 1st Immuno-Oncology Society of India Congress, 15-17 March 2019
3. Conducted quiz for post-graduates, Best of WCLC, 14 October 2018
4. Speaker: How to Sequence ALK inhibitors, ISMPOCON, 2018, 16-18 November 2018, Jaipur
5. Speaker: AIIMS data on EGFR positive lung cancer, ESMO highlights 2018, 30 November 2018
6. Speaker: Medical implications of genetic testing: Ovarian and breast cancer, 7th ABSICON, Association of Breast Surgeons of India Conference, AIIMS, 9 November 2018, New Delhi
7. Speaker: Rapid review on select Gyne Cancers abstracts from ASCO 2018, Best Of ASCO, 28-29 July 2018, New Delhi

Chandra Prakash Prasad
1. Basics of Immunotherapy in Cancer Treatment, Short Curriculum on Cancer Control prevention for North-East Region, 20 September 2018, New Delhi

**Thoudam Debraj Singh**

1. Discussant in “In Vivo Preclinical Imaging” session, “In Vivo Preclinical Imaging and Drug Discovery” ACTREC, 26 September 2018, Pune
2. Non-invasive imaging of therapeutic effect induced by IL-4 receptor targeting API-ELP-KLAK polymer in glioblastoma bearing mouse tumor model, Young Investigator Award Category (Nanobiotech 2018) Indian Society of Nanomedicine and DBT, 26 October 2018, New Delhi
3. Application of Biopolymer in biomedicine and targeted therapy, Seminars in Molecular Medicine, 6 March 2018, New Delhi
4. Application of Molecular Imaging in Cancer Biology, Use of scientific and technical terminologies in sustainable environment development, its challenges, Organized by (CSTT), 14 March 2018, New Delhi

**Mayank Singh**

2. Cancer Research, Indian Prespective, Short Curriculum on Cancer Control prevention for North-East Region, 17 September 2018, New Delhi
3. Environmental Epigenetics and Cervical Cancer Risk, Interdisciplinary Global environmental Health Collaborations Conference at University of Chicago Center in Delhi, 30 October 2018, New Delhi
5. Environmental determinants in Cancer, Student-Mentorship Programme 2018, 30 December 2018, New Delhi
6. USP37 (Ubiquitin specific peptidases 37) helps in tolerance of replication stress by stabilizing proteins involved in oncogenesis and promoting constitutive replication fork movement, 38th Annual Convention of Indian Association for Cancer Research (IACR-2019), 2 March 2019, Chandigarh

**Medical Physics**

**Pratik Kumar**

1. Medical Radiation Perspective, Industry Academia Meet-2018, 6 October 2018, SN Bose National Centre for Basic Sciences, Kolkata
3. Medical Physics Services Beyond Radiation Oncology, International Day of Medical Physics, 24 November 2018, Fortis Hospital, Shalimar Bagh, New Delhi

**Radiodiagnosis**

**Sanjay Thulkar**

1. Imaging approach to ovarian tumors, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi

**Mukesh Kumar**

1. Pleural, mediastinal and pericardial drainages and aspirations, 2nd Medanta Interventional radiology tutorials— “Aspirations and Drainages: All you need to know”, 28-29 April 2018, India Habitat Centre, New Delhi
2. Workshop on PICC line Insertion, Oncology Imaging and Interventions 2018, 27 May 2018, Auditorium, Delhi State Cancer Institute, Delhi
4. Basics of image guided drainage procedures: Hardwares and techniques, 72nd Annual Conference of Indian Radiology and Imaging Association (IRIA), 19 January 2019, PGIMER, Chandigarh
5. Ultrasound guided pain relief procedures, 72nd Annual Conference of Indian Radiology and Imaging Association (IRIA), 20 January 2019, PGIMER, Chandigarh

Ekta Dhamija
1. Imaging in Sarcoma, Oncology imaging and interventions 2018, 27 May 2018, Auditorium, Delhi State Cancer Institute, Delhi
2. Role of imaging in cancer management, Short Observership Programme on Cancer Control and Prevention for North Eastern Region (NER), 17-22 September 2018, Dr BRA IRCH, AIIMS, New Delhi
3. Touch me not lesions in breast imaging, 6th Annual conference of Breast Imaging Society of India (BISICON 2018), 16-18 November 2018, Gyan Bhawan, Patna
4. X-ray chest in oncology: Relevance in era of CT and PET-CT, 1st Annual and International Conference of Society of Oncological Imaging of India (SOIIICON) 2019, 8-10 February 2019, Rohini, New Delhi

Radiation Oncology
GK Rath
1. Current Perspectives on research in Radiation Oncology, Conference on Practical aspects of Radiation oncology and Medical Physics, 11-12 May 2018, BBCI, Guwahati
2. Role of Research in present Indian Oncology Context, Guest Lecture at AIIMS, Rishikesh, 20 June 2018, AIIMS, Rishikesh
3. Oncology research: A need of the hour, ONCON 2018, 30 June 2018, Kolkata
4. Translational research in oncology in India—Current status and future perspective, Chaturtha Conference CRAB-E-CON 2018, 6-7 October 2018, Jammu
5. Improving cancer literacy among primary care physicians, Symposium on Integration of Primary and Tertiary Cancer Care, 17 November 2018, Kochi
7. Early detection of cancer, Cancer awareness expedition, 2 December 2018, Odisha
8. The Key achievements at the National Level and future road map, ICMR—Plenary session on Non-Communicable Diseases at the 106th Indian Science Congress, 3-7 January 2019, LPU, Jhalandhar
9. Towards Predictive Therapeutics, Accelerating Biology 2019; Towards thinking machines, 5-7 February 2019, CDAC, Pune

Subhash Chander
1. ASOMA Congress, 3-5 October 2018, Male, Maldives
2. 39th Annual Conference of Association of Medical Physicists of India (AMPICON 2018), 2-4 November 2018, Chennai
3. 71st Annual Conference of The Association of Otolaryngologists of India with 14th Asia-Oceania ORL-HNS Congress 2019, 9-13 January 2019, Hyderabad
4. Association of Physicians of India—APICON2019, 7-10 February 2019, Kochi
5. 20th International AEK Cancer Congress, 27 February to 1 March 2019, Heidelberg, Germany

DN Sharma
1. Brachytherapy for oral cavity—How I do it, Brachytherapy to Soft Tissue Sarcoma, Head and Neck and Prostate, 28 July 2018, Calicut
2. Role of Brachytherapy in Neck Nodes, 8th Annual Conference of Indian Brachytherapy Society, 11-12 August 2018, Mumbai
3. Interstitial Brachytherapy in Locally Advanced Cervical Cancer, Annual Conference of Association of Radiation Oncology of India, Rajasthan Chapter (RAJAROICON 2018, 18-19 August 2018, Bikaner, Rajasthan
5. Video presentation: Brachytherapy in lymph node metastases, 1st Head and Neck Brachytherapy Workshop, 21-22 September 2018, Shimla
9. APBI-In or Out, 40th Annual Conference of the Association of Radiation Oncologists of India, 29 November to 2 December 2018, Thiruvananthapuram, Kerala
10. Vulvar cancer: Technologies (EBRT, brachytherapy) and outcome, ESTRO Meets Asia 2018, 7-9 December 2018, Singapore
11. APBI in early breast cancer, Max APBI, 3-4 March 2019, New Delhi
13. Imaging protocols for radiation planning, 3rd AROI-ESTRO Course on IGBT, 14-17 March 2019, Rishikesh

Sushmita Pathy
1. Neoadjuvant chemotherapy followed by Chemoradiation in Locally Advanced Cervical Cancer, GCIG CCRN INTERLACE Meeting, 17-18 June 2018, Kolkata
2. Course Faculty Radiobiology of SBRT: Optimal dose and Fractionation, SBRT Masterclass, 1 July 2018, Visakhapatnam
3. Expert Faculty/chairperson, The Contouring Course on Hepatobiliary and Pancreatic Cancer, 28 October 2018, New Delhi
5. Chairperson and panelist, 2nd Annual Conference of Research and Education Society of Medical Oncology: Lung Cancer Management in India: Challenges and Way Forward, 1 and 2 December 2018, New Delhi
6. Meet the Expert: Integrating Oncology with Palliative Care, International Conference of Indian Association of Palliative Care, IAPCON-2019, 8-10 February 2019, Kochi, Kerala
7. Panelist, Childhood Cancer is Curable, 27 February 2019, New Delhi
8. Panelist/Expert, Delhi Gastrointestinal Oncology Forum, 16 March 2019, Delhi

Subhash Gupta
1. Panelist for a session on GBM, Best of ASTRO, May 2018, Delhi
3. Attended, Annual academy of Srilankan college of Radiologists, August 2018, Colombo
4. Panelist for a session on Ca Cervix, RAJAROICON 2018, August 2018, Bikaner
5. NZAROICON-2018, 15-16 September 2018, Chandigarh
6. ESMO Preceptorship in Kidney Cancers, 19-20 September 2018, Singapore
7. ESMO advanced course on clinical questions in Prostate Cancer, 21-22 September 2018, Singapore
8. Fourth year in review breast cancer conference, January 2019, Mumbai
9. Advances in Immunooncology, February 2019, Mumbai
10. 40th ICON, March 2019, Kolkatta

Haresh KP
1. Panelist for Panel discussion on Best of ASCO abstracts in Genitourinary Cancer, Best of American Society of Clinical Oncology (ASCO) Conference, 29 July 2018, New Delhi
2. Attended, 3rd National Thyroid Congress-ISTSCON 2018, 24-26 August 2018, Mumbai
3. Role of Molecular Classification in management of Brain Tumors, NZAROICON-2018, 15-16 September 2018, Chandigarh
4. ESMO advanced course on clinical questions in prostate cancer, 21-22 September 2018, Singapore
6. Contouring of OAR in abdomen and Pelvis, ICRO Teaching Programme—PRODVANCE-18, 10-11 November 2018, Bhatinda
7. AROICON 2018, 29 November to 2 December 2018, Trivandrum
8. APBI-External Beam Radiation Therapy, Contouring Workshop on Breast Cancer: From Theory to Hands on, 3 March 2019, New Delhi
Rambha Pandey
1. Panelist for Symposium on lung cancer, AIIMS PULMOCRIT 2018, 30 March-1 April 2018, New Delhi
2. Evaluating Radiation Omission Decisions in a Population-based Sample of Older Adults Receiving Lumpectomy for Breast Cancer, Best of Astro India 2018, 5-6 May 2018, New Delhi
3. Patterns of failure and Adjuvant Radiation Therapy in Uterine CS, Delhi Gynae Oncology Group meeting, 4 July 2018, New Delhi
4. Definitive CT RT in stage III lung Cancer: Data from AIIMS, Delhi Gynae Oncology Group meeting, 4 July 2018, New Delhi
5. Panelist Definitive CT RT in NSCLC: Callenges and outcome, Lung Cancer management in Indian Context, AIIMS 1 and 2 December 2018, New Delhi
6. Panelist: Role of Radiotherapy in Brain metastases in NSCLC, Lung Cancer management in Indian Context, AIIMS 1 and 2 December 2018, New Delhi
7. Panelist “Chart round with Professors”, RGCON 2018, 8-10 February 2019, New Delhi
8. How I approach to SVCO, AIIMS Pulmocrit, 2 and 3 March 2019, New Delhi

Ahitagni Biswas
1. Intrinsic immune landscapes between radiosensitive and radioresistant tumours, Best of ASTRO Annual Meeting 2018, 5 May 2018, New Delhi
2. ISCO rapid review in head and neck cancer, Best of ASCO Annual Meeting 2018, 28 July 2018, New Delhi
3. Phase II study of pembrolizumab or pembrolizumab plus bevacizumab in recurrent glioblastoma (rGBM), Best of ASCO Annual Meeting 2018, 29 July 2018, New Delhi

Ritesh Kumar
1. Panel Discussion on Environmental Determinants of Cancer, Summarizing The Scientific Evidence, Key Policy Options and Environmental Interventions, First Conference on Environmental and Occupational Determinants of Cancer: Interventions for Primary Prevention, 26 May 2018, New Delhi
3. When to irradiate after Mastectomy—Evidence Based guidelines, ABSICON 2018, 10 November 2018, New Delhi
4. Chairperson in Lymphedema Workshop, ABSICON 2018, 10 November 2018, New Delhi
5. Contouring of Cancer Rectum, PRODVANCE 2018 (ICRO Teaching Programme), 11 November 2018, Bhatinda

Surgical Oncology
SV Suryanarayan Deo
1. Pros and Cons of MIS for thyroid cancer, Moderator, Panel Discussion, “Surgical approaches to the thyroid open/endoscopic/robotic- Live Surgical Workshop”, 7 April 2018, Kolkata
2. How to Start a Peritoneal Surface malignancy Centre, Panelist, Update in Peritoneal Surface Malignancies, 25 February 2019, Chennai
4. CRS and HIPEC for PSM, Panelist, 32nd Annual National Conference of IASO (NATCON IASO 2018), 22 September 2018, Trivandrum
6. Recent Advances in Cancer, Panelist, Apollo Cancer Conclave 2019, 25 January 2019, Chennai
14. PIPAC Workshop—Guest Faculty, International Workshop on PIPAC, 13 February 2019, Lausanne, Switzerland
16. Surgical oncology curriculum and Training, Guest Lecture, Annual Cancer Symposium Society of Surgical Oncology, USA, 30 March 2019, San Diego, California, USA

Sunil Kumar
1. Breast Oncoplasty (Cadaver demonstration), AIIMS-UK Breast Oncoplasty Workshop and Cadaver Course, November 2018, Trauma Center, AIIMS, New Delhi
3. Mediastinal staging and surgery in lung cancer, Lung Cancer Management in Indian Context: Challenges and way out (RESMO), December 2018, AIIMS, New Delhi
4. Applicability of recent advances in management of lung cancer in resource constrain setting: Ground reality, Lung Cancer Management in Indian Context: Challenges and way out (RESMO), December 2018, AIIMS, New Delhi
5. Surgical management of lung cancer, Best of ASCO, July 2018, New Delhi
6. Management controversies in thyroid cancer, 3rd Master Course in Head and Neck Cancer, December 2018, Sri Mata Vaishno Devi Hospital, Jammu
8. Mediastinal staging for NSCLC, RGCON 2019, February 2019, New Delhi

MD Ray
1. Moderator, PIPAC demonstration—Apollo Hospital, 11 April 2018, New Delhi
3. CRS, HIPEC and beyond at a Glance-Experience in a Premier Institute, India, AGSMG 2nd Peritoneal Surface Malignancy Course 2018, 7-8 June 2018, Singapore
4. For self training, 3rd Hands on Cadaver Laparoscopic Workshop—Advanced Gynecology Surgery, 25-26 June 2018, Bangalore
7. ‘Role of T-regulatory cells in epithelial ovarian cancer’, Translational Research Day Meeting, Tata Medical Centre, 13-15 March 2019, Kolkata
8. Chairperson, Update on Ovarian Tumours, MAMC, 23 March 2019, New Delhi

Sandeep Kumar Bhorival
1. Result and TE Flap reconstruction, ABSICON 2018, 10-11 November 2018, New Delhi
2. Breast Oncoplasty (Cadaver demonstration), AIIMS-UK Breast Oncoplasty Workshop and Cadaver Course, November 2018, New Delhi

Oral papers/posters presented
Onco-Anaesthesia and Palliative Medicine
1. Bhatnagar S, Present Poster, 17th World Conference on Pain, 12-16 September 2018, Boston, USA
6. Abraham NS, Bhatnagar S, Mishra S, Choudhary N, Nutritional pattern in cancer patients admitted to palliative care ward using Subjective Global Assessment Form, IAPCON 2019, 8-10 February 2019, Kochi, Kerala
10. Rathore P, Bhatnagar S, Mishra S, Garg R, Bharti SJ, To study and analyze the pattern of symptoms in head and neck cancer patients presenting in palliative care ward at a tertiary cancer centre of India: A cross sectional study, IAPCON 2019, 8-10 February 2019, Kochi, Kerala

Delhi Cancer Registry
1. Manoharan N, Deo SVS, Rath GK, PBCR Sources with HBCR-Dr BRAIRCH, New Delhi, Workshop on Cancer Registration, 2 May 2018, New Delhi
2. Kumar R, Indrayan A, Receiver Operating Characteristic (ROC) Curve for Medical Researchers, 58th Annual Conference (NAMSCON2018) of the National Academy of Medical Sciences, 26-28 October 2018, Pondicherry

Laboratory Oncology

10. Bakhshi S, Gupta SK, Kamal VK, Relevance of functional subtyping of IKZF1 deletion-Loss-of-function or Dominant-negative, in pediatric B-cell Acute Lymphoblastic leukemia, (Poster), 42nd annual scientific meeting of HGSA 2018, 4-7 August 2018, Sydney, Australia


15. Durai J, Ranjan A, Tanwar P, Prognostic significance of thrombopoietin after radiotherapy in cases of malignancies, 2nd annual conf of ASOMA, 3-5 October 2018, Male, Maldives


Medical Oncology

1. Sharma A, Chaudhary SP, Raina V, Shukla NK, Sreenivas V, Prakash S, Priyatma P, Bharti S, Final Result of a Phase II/III, Randomized, double blind, Placebo-Controlled Study to Investigate the Efficacy of A High Potency Multistrain Probiotic, On Chemotherapy Induced Diarrhea in Cancer Patients Receiving Fluopyrimidines and/or Irinotecan Based Therapy, ESMO Congress 2018, 18-22 October 2018, Munich (Germany)

2. Biswas A, Sahoo R, Kumar R, Mallick S, Sikka K, Bakhshi S, Bhasker S, Sharma A, Thakar A, Combined Modality Management of Esthesioneuroblastoma in Paediatric and Adolescent Patients: Clinical Experience from a Regional Cancer Centre in North India, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan

3. Bakhshi S, Biswas B, Pushpam D, Kumar A, Thakar A, Sharma DN, Equivalent Outcome with Radiotherapy Only Versus Surgery as Local Treatment Modality in Head and Neck Ewing Sarcoma Family of Tumors, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan


5. Kashyap M, Mishra A, Tiwari A, Bakhshi S, Change of Nutritional Status During Chemotherapy and Factors Predicting Nutritional Status at 6 Month Interval, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan


6. Agarwal M, Rashmi S, Bakhshi S, Sadanand D, Madhulika K, Rachna S, Gene Copy Number Alterations and Association with Prognostic Factors in Childhood Acute Lymphoblastic Leukemia, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan

7. Biswas A, Bakhshi S, Suri V, Sharma M, Julka P, Combined Modality Management of Paediatric Primary Central Nervous System Lymphoma: Clinical Experience from a Regional Cancer Centre in North India, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan

8. Gupta S, Bakhshi S, Kamal V, Impact of Loss-of-Function and Dominant-Negative IKZF1 Deletions on Outcome in BCR-ABL1 Negative Paediatric B-Cell Acute Lymphoblastic Leukemia, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan


11. Pushpam D, Rajpoot N, Chopra A, Sreenivas V, Kumar R, Bakhshi S, Correlation of Absolute Lymphocyte Count and Peripheral Blood Lymphocyte Subset with Minimal Residual Disease at End of Induction in Paediatric B Cell Acute Lymphoblastic Leukemia, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan

12. Pushpam D, Chopra A, Kumari M, Sreenivas V, Kumar R, Bakhshi S, Absolute Lymphocyte Count at the End of Induction as a Surrogate Marker for Minimal Residual Disease in T Acute Lymphoblastic Leukemia: A Pilot Study, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan


15. Tiwari A, Kashyap M, Mishra A, Bakhshi S, Malnutrition and Associated Factors in Paediatric Cancer Patient at Baseline, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan


23. Kashyap S, Singh L, Singh MK, Sen S, Chawla B, Bakhshi S, Expression of Transcriptional Target of p53 Protein in Human Retinoblastoma, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan


25. Singh M, Batra A, Bakhshi S, Validation of USP37 (Ubiquitin specific peptidases 37) as a prognostic and diagnostic marker in osteosarcoma, AACR Annual Meeting 2019, 28 March-3 April 2019, Atlanta Georgia


27. Biswas A, Sahoo R, Kumar R, Mallik S, Sikka K, Bakhshi S, et al., Combined modality management of esthesioneuroblastoma in paediatric and adolescent patients: Clinical experience from a regional cancer centre in north India, Conference: 50th Congress of the International Society of Paediatric Oncology (SIOP), November 2018, Kyoto, Japan


33. Rastogi S, Barwad A, Dhamija E, Panday R, Immunotherapy experience in advanced melanoma, New frontiers in oncology, AIIMS, New Delhi, 30 November 2018, Delhi


38. Mohapatra P, Prasad CP, Andersson T, WNT5A: Target for anti-metastatic therapy, EMBO Workshop—Cellular Signaling and Cancer Therapy, 14-18 September 2018, Cavtat, Croatia

39. Prasad CP, WNT-5A affects the epithelial-mesenchymal phenotype differently in human mammary epithelial cells versus human breast cancer cells, Indo-Australian Symposium on EMT, 24 October 2018, Pune, India

**Medical Physics**


Radiodiagnosis


6. Dhamija E, Ramachandran A, Thulka S, Incidental findings with potential clinical implications detected on staging CT, 72nd Annual Conference of Indian radiological and Imaging Association (IRIA 2019), 17-20 January 2019, PGIMER, Chandigarh

7. Dhamija E, Diwan K, Thulka S, Extranodal lymphoma in Abdomen-CT imaging spectrum, 72nd Annual Conference of Indian radiological and Imaging Association (IRIA 2019), 17-20 January 2019, PGIMER, Chandigarh


10. Diwan K, Dhamija E, Thulka S, Parasitic Infestation in breast- rare entity of primary breast hydatid, 6th Annual Conference of Breast imaging Society, India (BISICON 2018), 16-18 November 2018, Gyan Bhawan, Patna


15. Meyyappan L, Dhamija E, Malla S, Priyanka, Mohapatra S, Singh S, Malignant Peripheral Nerve sheath tumor of Sciatic nerve extending into deep femoral vein—A rare presentation, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi
16. Meyyappan L, Dhamija E, Malla S, Priyanka, Mohapatra S, Singh S, Endometrial changes in patient receiving Tamoxifen therapy for Breast Cancer, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi

17. Makhija N, Dhamija E, Paul SB, Hari S, Imaging features of HER2 Enrich breast cancer, 6th Annual Conference of Breast imaging Society, India (BISICON 2018), 16-18 November 2018, Gyan Bhawan, Patna

18. Makhija N, Dhamija E, Paul SB, Hari S, Refining USG breast technique, 6th Annual Conference of Breast Imaging Society, India (BISICON 2018), 16-18 November 2018, Gyan Bhawan, Patna


22. Singh R, Dhamija E, Deo SVS, Shukla NK, Mathur M, Thulkar S, A prospective study to evaluated the accuracy of axillary staging using ultrasound and USG-guided FNAC in early breast patients in a high volume center, 7th Annual Conference of Association of Breast Surgeons of India (ABSICON 2018), 9-11 November 2018, AIIMS, New Delhi


27. Paul SB, Gamanagatti SR, Prasad VP, Dhamija E, Shalimar1, Acharya SK1, Hepatocellular carcinoma with Extrahepatic Collateral supply: Diagnosis and impact on management with Transarterial chemoembolization, 2nd Annual Conference of Indian Society of Gastrointestinal and Abdominal Radiology (ISGAR 2018), 28-30 September 2018, EROS Delhi, New Delhi


29. Mohapatra S, Priyanka, Meyyappan L, Singh S, Malla S, Dhamija E, Intrabronchial rupture of metastatic lesion as a rare cause of diffuse alveolar hemorrhage—A case report, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi

30. Malla S, Mohapatra S, Priyanka, Singh S, Meyyappan L, Dhamija E, Oncological emergencies in abdomen-CT spectrum, Third Prize, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi


Radiation Oncology

1. Rath GK, Gandhi A, Mallick S, Sharma DN, Clinical outcome of brainstem glioma treated with or without concurrent chemoradiotherapy: An institutional retrospective analysis of 71 patients, 60th Annual Meeting of the ASTRO, 21-24 October 2018, Texas, USA
2. Bhasker SC, Chander S, Head and Neck soft tissue sarcoma: Treatment outcome, patterns of failure and prognostic factors—Clinical experience from a regional cancer centre in India, 20th International AEK Cancer Congress, 27 February to 1 March 2019, Heidelberg, Germany
9. Biswas A, Sahoo R, Kumar R, Mallick S, Sikka K, Bakhshi S, et al., Combined modality management of esthesioneuroblastoma in paediatric and adolescent patients: Clinical experience from a regional cancer centre in north India, 50th Congress of the International Society of Paediatric Oncology (SIOP), November 2018, Kyoto, Japan
10. Biswas A, Bakhshi S, Suri V, Sharma M, Julka P, Combined modality management of paediatric primary central nervous system lymphoma: Clinical experience from a regional cancer centre in north India, 50th Congress of the International Society of Paediatric Oncology (SIOP), November 2018, Kyoto, Japan

Surgical Oncology

1. Barua A, Deo SVS, Gogia A, Kumar R, “Comparison of PET CT vs conventional staging investigation for locally advanced breast cancer (LABC); results of a prospective study”, ABSICON 2018, 9-11 November 2018, AIIMS, New Delhi
4. Kumar N, Ray MD, Clinical profiles, Peritoneal Cancer Index (PCI), Extent of Resection and Completeness of Cytoreduction (CC) rates in Peritoneal, Oncovison, R&R Hospital, 24 February 2019, New Delhi

AIIMS 2018-19 / 610
5. Kumar N, Ray MD, Deo SVS, Carcinomatosis (PC) after CRS and HIPEC—Oncovision 2019, Oncovison, R&R Hospital, 24 February 2019, New Delhi

6. Kumar B, Deo SVS, Ray MD, Cytoreductive surgery and HIPEC for peritoneal surface malignancy: Clinical spectrum, morbidity and mortality in 102 cases’, SSO 2019, 28 March 2019, San Diego, California, USA, Best Paper prize in IASO to participate in SSO 2019—USA with Travel Grant


8. Kumar B, Sunil K, Rate of pathological N2 nodes among patients of NSCLC with cN0/cN1 nodal status on CECT scan—A study from tertiary care hospital in India, ESMO, 24 November 2018, Asia at Singapore


10. Kumar B, Deo SVS, Ray MD, Cytoreductive surgery and HIPEC for peritoneal surface malignancy: Clinical spectrum, morbidity and mortality in 102 cases, NATCON IASO, 22 September 2018, Kovalam, India


16. Gowda MS, Bansal B, Kumar VJR, Deo SVS, Malik P, Kumar S, Correlation between maximum Tumor diameter measurement on CT scan and histopathological specimen, An Indian experience, IASLC:WCLC, 23-26 September 2018, Toronto, Canada

17. Gowda MS, Deo SVS, Gogia A, Breast cancer survival in low and middle income countries, Experience from a tertiary cancer center in India, ABSICON 2018, 9-11 November 2018, New Delhi

18. Gowda MS, Deo SVS, Ekta D, Thulkar S, TURBO Study: TUmor and Breast volumetry by clinical and radiological methods, Results of breast volumetry, ABSICON 2018, 9-11 November 2018, New Delhi

19. Ashutosh M, Sunil K, Sandeep B, Deo SVS, Impact of revision surgery timing on overall survival in incidentally detected gall bladder cancer: An experience from tertiary care centre of Northern India, ESMO World Congress on GI Cancers, 24 June 2018, Barcelona

RESEARCH

Funded projects

Ongoing

Onco-Anaesthesia and Palliative Medicine

1. Spiritual problems and concerns faced by Indian palliative care patients, Sushma Bhatnagar, ICMR, 3 years, 2017-2019, Rs 1.32 lakhs

2. Prevalence and factors associated with cancer related neuropathic pain in India: A cross sectional study, Sushma Bhatnagar, ICMR, 2 years, Rs 10 lakhs

3. A Double Blind, Double-Dummy, Randomized, Prospective, Two Arm, Parallel, Multicenter, Phase IV Clinical Trial to Evaluate Efficacy and Safety of Gaba-NT (Fixed-Dose Combination of Gabapentin and Nortriptyline) in Comparison with Gabapentin in Patients with Neuropathic Pain, Sushma Bhatnagar, 2 years, Rs 3 lakhs

Delhi Cancer Registry

1. Establishment of Hospital based Cancer Registries and patterns of care and survival studies on Cancer Breast, Cancer Cervix and Head and Neck Cancers, SVS Deo, National Cancer Registry Programme, National Centre for Disease Informatics and Research, Indian Council of Medical Research, Bangalore, 6 years, 2014, Rs 38 lakhs per annum (approximately)
2. Patterns of Care and Survival Studies on childhood, lymphoid and hematopoietic malignancies, SVS Deo, National Cancer Registry Programme, National Centre for Disease Informatics and Research, Indian Council of Medical Research, Bangalore, 5 years, 2017, Rs 1 lakh per annum (approximately)

3. Population Based Survival Studies on Cancer Breast, Cervix and Head and Neck Cancers, SVS Deo, National Cancer Registry Programme, National Centre for Disease Informatics and Research, Indian Council of Medical Research, Bangalore, 5 years, 2017, Rs 6.8 lakhs per annum (approximately)

**Laboratory Oncology**

1. Centre for Advanced Research and Excellence in Leukemic Stem Cells (LSC) for Prognosis and Treatment (CARE-LSCPT) in Acute Myeloid Leukemia, Ritu Gupta, ICMR, 5 years, 2019-2024, Rs 490.82 lakhs

2. Unit of Excellence on Cancer Research on Multiple Myeloma, Ritu Gupta, DBT, 5 years, 2016-2021, Rs 314 lakhs

3. Evaluation of DRY Multi-Color Panels for Lymphoma and Leukemia Diagnosis and Monitoring on a Flow Cytometer, Ritu Gupta, Beckman Coulter, 2 years, 2018-2020, Rs 9.46 lakhs

4. Prevalence and significance of ETS related gene deletions in Acute Lymphoblastic Leukemia, Sanjeev Kumar Gupta, AIIMS, New Delhi, 1 year, 2018-2019, Rs 5 lakhs

5. Early immature T-lymphoblastic leukemia (ALL): Evaluation of early thymic precursor T-ALL immunophenotype, absence of biallelic deletion of TCR γ chains (ABD) and expression of MEF2C as predictors of treatment response as assessed by minimal residual disease determination, Anita Chopra, DST, 3 years, 2015-2018, Rs 20.16 lakhs

6. Molecular determinants of prednisolone sensitivity in pediatric acute lymphoblastic leukemia, Anita Chopra, AIIMS New Delhi, 2 years, 2016-2018, Rs 8 lakhs

7. Molecular biology of cyogenetically normal acute myeloid leukemia, Anita Chopra, DBT, 3 years, 2015-2018, Rs 55 lakhs

8. ICMR Task Force Comparative study of Genetic, Clinical and Epidemiological factors of Breast Cancer in Indian population, Pranay Tanwar, ICMR, 5 years, 2017-2022, Rs 122 lakhs

9. A prospective study to evaluate WT1 gene expression as predictive molecular marker of disease progression in de novo cases of Acute Myeloid Leukemia, Pranay Tanwar, DST, 4 years, 2017-2021, Rs 52 lakhs

10. ICMR Task Force Genomics of gallbladder carcinoma in Indian Patients, Pranay Tanwar, ICMR, 5 years, 2017-2022, Rs 1.99 lakhs

11. Human Palilloma Virus (HPV): Relevance in etiology of oral squamous cell carcinoma in Indian Population, Pranay Tanwar, DHR, MoHFW, 4 years, 2017-2021, Rs 45 lakhs

12. Evaluation of Thrombopoietin as a marker of sepsis in postoperative cases of gastrointestinal malignancy, Amar Ranjan, AIIMS, New Delhi, 3 years, 2016-2019, Rs 4 lakhs

13. Evaluation of HE4 level in epithelial ovarian cancer for diagnosis and monitoring of therapy, Amar Ranjan, ICMR, New Delhi, 3 years, 2017-2020, Rs 25 lakhs

14. Prognostic evaluation of thrombopoietin following surgery in gastrointestinal cancer patients, Amar Ranjan, Oncology Forum, New Delhi, 1 year, 2018, Rs 1.5 lakhs

15. Molecular determinant of prednisolone sensitivity in Acute lymphoblastic leukemia, Anita Chopra, AIIMS, New Delhi, 2 years, 2016-2018, Rs 8 lakhs

16. Identification of novel tyrosine kinases in Indian paediatric Ph-like Acute lymphoblastic leukemia, Anita Chopra, DHR, New Delhi, 3 years, 2018-2021, Rs 30 lakhs

17. Impact of TCR αβ sequence repertoire in CML blasts, Gurvinder Kaur, AIIMS, 2 years, 2018-2020, Rs 10 lakhs

18. Characterization of circulating cell free Nucleic acids for identification of leukemia-specific genetic alterations in early recurrence monitoring of Acute Myeloid Leukemia, Deepshi Thakral, AIIMS, New Delhi, 2 years, 2018-2020, Rs 10 lakhs

**Medical Oncology**

1. Aspirin for Dukes C and High Risk Dukes B Colorectal Cancers - An International, Multi-centre, Double Blind, Randomised Placebo Controlled Phase III Trial, Atul Sharma, Singapore clinical Research Institute, Singapore, 5 years, 2013-2018, 500 USD per patient

2. CANscript™ Clinical Outcomes in a Real-World Setting (ANCERS-1): A Prospective, Multicenter, Observational Study Examining the Clinical Utility of CANscript™ in Routine Clinical Practice, Atul Sharma, Catalyst (CRO), 3 years, 2017-2020, Rs 2 lakhs
3. A single arm, multicentric, open label, efficacy and safety study of Doceaqualip (Docetaxel Lipid Suspension for Injection of Intas Pharmaceuticals Limited, India) based regimens in metastatic gastric adenocarcinoma patients, Atul Sharma, Lambda Therapeutics Research Limited, 2 years, 2018-2020, Rs 4.79 lakhs + 1.72 lakh per patient

4. Improving Refusal, Non-Compliance, Abandonment and Outpatient Infection Treatment in Paediatric and Adolescent Cancers, Sameer Bakhshi, Lebara Foundation, 5 years, 2015-2020, Rs 93.33 lakhs

5. Establishing a nutritional counselling programme and developing a nutritional database in pediatric patients with cancer, Sameer Bakhshi, Cuddle Foundation, 3 years, 2016-2019, Rs 13.37 lakhs

6. Role of mitochondrial complex encoding genes in Paediatric AML, Sameer Bakhshi, AIIMS, 3 years, 2016-2019, Rs 10 lakhs

7. National Multicentre Childhood Leukemia Programme, Sameer Bakhshi, ICMR, 2 years, 2017-2019, Rs 32 lakhs

8. Role of mitochondrial heterogeneity in the progression and prognosis of Acute Myeloid Leukemia (AML), Sameer Bakhshi, DST, 3 years, 2017-2020, Rs 50.7 lakhs

9. Indian childhood collaborative leukaemia group multicentre national standardisation study for newly diagnosed acute lymphoblastic leukemia (ALL), Sameer Bakhshi, National Cancer Grid, 3 years, 2016-2019, Rs 35 lakhs

10. SADAL: A Phase 2b Open label Study of Selinexor (KPT-330) in Patients with Relapsed/Refractory Diffuse Large B-Cell Lymphoma (DLBCL), Sameer Bakhshi, Excel Life Sciences, 5 years, 2018-2023, Rs 11 lakhs

11. A Phase 2, Open-Label Trial Evaluating the Efficacy and Safety of Two Dosages of Once Daily Oral CA-170 in Patients with Selected Relapsed Advanced Tumors (ASiAD), Sameer Bakhshi, Veeda Clinical Research Pvt. Ltd., 5 years, 2018-2023, Rs 3.8 lakhs per patient


13. Androgen receptor in triple negative breast cancer, Ajay Gogia, AIIMS, 1 year, 2019, Rs 3.75 lakhs

14. Role of RRM1, RRM2, hENT1 and ERCC1 expression in Advanced Carcinoma of Gall Bladder treated with Gemcitabine-Platinum Doublet, Ranjit Kumar Sahoo, Nag Foundation, Pune, 2 years, 2016-2018, Rs 5 lakhs

15. Safety study of Nivolumab for selected advanced malignancies in India, Prabhat Singh Malik, Bristol-Myers Squibb Company (BMS), 2 years, 2018-2020, Rs 39.72 lakhs

16. A prospective, multicenter, Phase-IV clinical trial to assess safety of TAGRISSO TM (Osimertinib) in Indian adult patients with metastatic epidermal growth factor receptor (EGFR) T790M mutation-positive non small cell lung cancer (NSCLC), Prabhat Singh Malik, AstraZeneca Pharma India Limited, 1 year, 2019-2020, Rs 5.06 lakhs

17. AIIMS-IIT Delhi collaborative research Proposal on Liquid Biopsy: An exploratory study on exosome-based diagnostics for Lung Cancer, Prabhat Singh Malik, IIT and AIIMS, Delhi, 1 year, 2019-2020, Rs 10 lakhs (For IITD), Rs 10 lakhs (AIIMS)

18. Expression of NOTCH1,2,3, HES-1 and p21 in esophageal squamous cell carcinoma, Raja Pramanik, AIIMS, 1 year, 2017-2018, Rs 5 lakhs

19. Assessment of BRCA and non-BRCA mutations with Multi gene panel testing in patients of ovarian cancer: A cross-sectional observational study, Sachin Khurana, AIIMS, 2 years, 2018-2020, Rs 10 lakhs

20. Role of Phosphofructokinase-P (PFKP) in Breast Cancer, Chandra Prakash Prasad, AIIMS, 2 years, 2017-2019, Rs 10 lakhs

21. Exploring how β-catenin induced metabolic changes can be exploited for Triple Negative Breast Cancer (TNBC) prognosis and therapeutics, Chandra Prakash Prasad, SERB, 3 years, 2018-2021, Rs 46.65 lakhs

22. To study the role of Estrogen-Related Receptor Gamma (ERRγ) as a potential biomarker in thyroid cancers, Thoudam Debraj Singh, AIIMS, 2 years, 2017-2019, Rs 9 lakhs

**Medical Physics**

1. Development of tissue equivalent optically stimulated luminescent materials for radiation dosimetric applications in low and high doses of medical radiation, Pratik Kumar, DHR, 3 years, 2017-2020, Rs 15.53 lakhs

2. Preparation and study of radiochromic film as radiation dosimeter for medical applications, Pratik Kumar, ICMR, 3 years, 2018-2021, Rs 16.69 lakhs

**Radiodiagnosis**

1. Metallic tumour marker clip for breast cancer: Design, development and clinical implications, Prof Sanjay Thulkar, Science and Engineering research Board (SERB)-DST, 5 years, 2014-2019, Rs 23.27 lakhs
2. Comparative evaluation of Nasoenteric feeding and Percutaneous Radiologic Gastrostomy for enteric support in patients with moderate and severe dysphagia due to neoplasms of oropharynx or esophagus: A pilot randomized controlled trial, Mukesh Kumar, AIIMS, 2 years, 2018-2020, Rs 5 lakhs

3. Diagnostic accuracy of Contrast enhanced Ultrasound in detecting early response to Neoadjuvant Chemotherapy in Breast cancer patients, Ekta Dhamija, AIIMS, 2 years, 2019-2021, Rs 8 lakhs

**Radiation Oncology**

1. A study of Palbociclib in combination with Letrozole as treatment of postmenopausal women with hormone receptor positive, Her 2 new negative advanced breast cancer for whom Letrozole therapy is deemed appropriate, Harsh KP, Pfizer India, 3 years, 2017-2019, Rs 10 lakhs

2. Prospective assessment of Radiation Induced Lung Injury (RILI) in Breast cancer patients undergoing adjuvant post-operative Three Dimensional Conformal Radiotherapy (3DCRT), Ritesh Kumar, AIIMS, 2 years, 2017-2019, Rs 4 lakhs

**Surgical Oncology**

1. HBCR and Pattern of care and survival studies in breast, Head and Neck and Cervical Cancer, SVS Deo, ICMR, 4 years, 2014-2018, Rs 35 lakhs per year

2. Diversity of Oral micro biome of smokeless tobacco induced oral cancer patients as compared to tobacco chewers and non tobacco chewer healthy individuals—A metagenomic approach, SVS Deo, DST-SERB, 3 years, 2015-2018, Rs 50 lakhs

3. Patterns of care and survival studies on cancer in childhood, lymphoid and hematopoietic malignancies, other gynaecological malignancies, SVS Deo, ICMR, 4 years, 2017-2021, Rs 5 lakhs

4. Immuno-phenotypic profile of tumour infiltrating cells of the immune system and expression of PDL1 in triple negative/Her-2 neu positive breast cancer patients and their correlation with response to neoadjuvant chemotherapy, SVS Deo, DST, 3 years, 2017-2020, Rs 28.74 lakhs

5. Comparative Sphingolipid profiling of breast cancer cell and tissue types for identification of Potential Metastatic Biomarkers, SVS Deo, DST, 2016-2018, Rs 47.15 lakhs

6. Clinical significance of cell-free DNA in intraoperative pleural lavage fluid and plasma in patients undergoing pulmonary metastasectomy: A pilot study, Sunil Kumar, AIIMS, 2 years, 2018-2020, Rs 10 lakhs

7. Development of Standard Operating Procedures (SOP) of Hyperthermic Intraperitoneal Chemotherapy (HIPEC) in peritoneal surface malignancies for public set up in India, MD Ray, DST, 2 years, 2017-2019, Rs 50 lakhs

8. Association of HIPEC treatment with expression of T regulatory cells (FOXP3) in epithelial ovarian cancer and its clinical significance, MD Ray, AIIMS, 2 years, 2018-2019, Rs 8 lakhs

9. Role of T-Regulatory Cells (Tregs) and their clinical correlation in epithelial ovarian cancer, MD Ray, AIIMS, 3 years, 2017-2020, Rs 8-10 lakhs

**Onco-Anaesthesia and Palliative Medicine**

1. Molecular Determinates of Response to opioids in cancer patients: Indian Scenario, ICMR, Sushma Bhatnagar, 3 years, Rs 28 lakhs

**Laboratory Oncology**

1. Elucidation of pathologically relevant miRNAs responsible for disease progression and resistance to chemotherapy in CLL, Ritu Gupta, DBT, 3 years, 2015-2018, Rs 1.05 lakhs

2. Resistance to tyrosine kinase inhibitors in Indian patients with chronic myeloid leukemia—A mechanistic view, Ritu Gupta, ICMR, 3 years, 2015-2018, Rs 21.24 lakhs

3. Prevalence of intrachromosomal amplification of chromosome 21 (iAMP21) in B-ALL, Sanjeev Kumar Gupta, AIIMS, New Delhi, 2 years, 2016-2018, Rs 10 lakhs

4. Evaluation of Thrombopoietin as a marker of sepsis in postoperative cases of gastrointestinal malignancy, Amar Ranjan, AIIMS, New Delhi, 1 year, 2016-2017, Rs 4 lakhs

**Medical Oncology**

1. Investigating the efficacy of microRNAs as molecular marker in pediatric acute myeloid leukemia, Sameer Bakhshi, DBT, 3 years, 2015-2018, Rs 26.85 lakhs

2. EGFR/CK-5/6 in triple negative breast cancer, Ajay Gogia, AIIMS, 1 year, 2017, Rs 3.5 lakhs
3. MGMT methylation in primary CNS lymphoma, Ranjit Kumar Sahoo, AIIMS, 3 years, 2015-2017, Rs 3.15 lakhs
4. Validation of Thymidylate Synthetase and Folate Receptor alpha expression as predictive biomarkers for efficacy of pemetrexed based chemotherapy in advanced non squamous NSCLC, Prabhat Singh Malik, AIIMS, 2 years, 2016-2018, Rs 9 lakhs

**Surgical Oncology**

1. A Prospective Randomised Control Trial Comparing Intracostal with Pericostal Thoracotomy Closure to Evaluate Post Thoracotomy Pain Syndromes (PaNT), Sunil Kumar, AIIMS, 2 years, 2016-2018, Rs 2 lakhs
2. Role of Fibrin Sealant in Ilio Inguinal Block Dissection to reduce the rate of lymphatic drainage and seroma formation, thereby morbidity, MD Ray, AIIMS, 2 years, 2016-2018, Rs 1.20 lakhs

**Departmental projects**

**Ongoing**

**Onco-Anaesthesia and Palliative Medicine**

1. A comparison of effect of Desflurane vs Sevoflurane on arterial oxygenation during one lung ventilation for thoracotomies in oncosurgical patients, A randomized control trial
2. A comparison of two techniques of postoperative analgesia: Lignocaine-fentanyl intravenous infusion and ropivacaine-fentanyl epidural infusion in patients undergoing Cytoreductive Surgery (CRS) and Hyperthermic Intraperitoneal Chemotherapy (HIPEC)—Prospective randomized control study
3. A cross-sectional survey of medical professionals in India to assess their prescription practices, knowledge, attitude, and barriers towards opioid analgesic prescriptions
4. A Pilot Randomized Clinical Trial Comparing Desflurane Anaesthesia vs Total Intravenous Anaesthesia, for changes in Hemodynamic, Inflammatory and Coagulation Parameters in patients undergoing Hyperthermic Intraperitoneal Chemotherapy
5. A Prospective Observational Study to Assess the Effect of Palliative Care Consultation on the Palliative Care Needs of Patients Suffering from Advanced Lung Cancer, in a Tertiary Care Hospital in India
6. A prospective randomized control trial comparing intracostal with pericostal thoracotomy closure to evaluate post thoracotomy pain syndromes (paint)
7. A Prospective Randomized Control Trial of Goal directed vs Standard Fluid Therapy in Cytoreductive Surgery with Hyperthermic Intraperitoneal Chemotherapy
8. A prospective randomized study to assess the analgesic efficacy of SAP Block (SAP) for modified radical mastectomy under general anesthesia
9. A survey of medical professionals in an apex tertiary care hospital to assess awareness, interest, practices and knowledge in palliative care: A descriptive cross-sectional study
10. An assessment of need for palliative care in patients with rheumatoid arthritis using SF36, DAS28, DASS and HAQ-DI questionnaires
11. An observational study to elucidate the reasons for non-compliance to home treatment for breast cancer related lymphedema in a tertiary care hospital
12. Anaesthesia for brachytherapy in a cancer institute in the last 6 years: A retrospective observational study
13. Asian Patient’s Perspective Regarding Oncology Awareness, Care and Health (APPROACH)
14. Assessment of palliative care outcome in patients of multiple myeloma attending the palliative care clinic of a tertiary care centre: A prospective observational study
15. Assessment of palliative care outcomes in patients of gastrointestinal malignancies attending the palliative care clinic of a tertiary care centre, A prospective observational study
16. Assessment of quality of life in breast cancer patients receiving hormonal therapy
17. Assessment of symptom burden and quality of life in patients of advanced breast cancer in Indian population: A cross-sectional study
18. Association of Vitamin D deficiency with opioid consumption, quality of life and progression free survival in metastatic breast cancer patients: An observational descriptive prospective study
19. Cardiopulmonary exercise testing as a predictor of morbidity after major gastrointestinal cancer surgeries in patients at nutritional risk: A prospective observational pilot study
20. Cardiopulmonary exercise testing as a predictor of outcomes after major oncological abdominal surgeries: A prospective observational study
21. Cardiopulmonary exercise testing as a predictor of postoperative outcome in patients undergoing esophageal cancer surgery following neoadjuvant chemotherapy—A prospective observational study

22. Cardiopulmonary exercise testing as an early predictor of chemotherapy induced cardiac dysfunction in carcinoma breast patients receiving neo-adjuvant chemotherapy and to compare their early post-operative recovery with the carcinoma breast patients posted for upfront surgery—A prospective observational study

23. Comparative evaluation of efficacy of intravenous infusion of Dexmedetomidine with Morphine for postoperative analgesia and sedation in head and neck cancer surgery

24. Comparative evaluation of Nasotracheal intubation with C Mac Video laryngoscope conventional blade vs D blade using cuff inflation technique in patients undergoing head and neck cancer surgeries: A prospective randomized study

25. Comparative evaluation of Nasotracheal intubation with Glidescope Video laryngoscope and conventional Macintosh laryngoscope using cuff inflation technique in patients undergoing head and neck cancer surgeries: A prospective randomized study

26. Comparative evaluation of ultrasound guided Serratus Anterior Plane block versus Erector Spinae Plane Block for postoperative analgesia in modified radical mastectomy—A randomized controlled trial

27. Comparison between C-arm fluoroscopic guided posterior versus Percutaneous Ultrasound-guided anterior approach for celiac plexus neurolysis in patients with upper abdominal cancer in terms of pain relief and quality of life—A Prospective randomized comparative study

28. Comparison between lignocaine-fentanyl intravenous infusion and ropivacaine-fentanyl epidural infusion as perioperative analgesic technique in patients undergoing major abdominal oncosurgery

29. Comparison of analgesic efficacy of ultrasound guided thoracic Paravertebral block versus surgeon guided Serratus Anterior Plane block for acute postoperative pain in patients undergoing thoracotomy for lung surgery—A prospective randomized study

30. Comparison of dexametomidine vs midazolam in conscious sedation for patients undergoing medical thoracoscopy—A randomized controlled pilot study

31. Comparison of efficacy of Ultrasound guided Paravertebral Block versus Erector Spinae Plane block for Postoperative Analgesia in Modified Radical Mastectomy—A randomized controlled trial

32. Comparison of intervention with analgesics versus analgesics alone in patients with upper abdominal malignancy in terms of pain relief and quality of life at 3 months follow up: A prospective randomized study

33. Comparison of intervention with analgesics versus analgesics alone in patients with Head and Neck malignancy in terms of pain relief and quality of life at 3 months follow up: A prospective randomized study

34. Comparison of postoperative analgesic efficacy of intrathecal morphine versus epidural morphine in equivalent doses in patients undergoing thoracotomy for lung cancer surgeries—Prospective randomized study

35. Comparison of two different doses of hyperbaric bupivacaine for intracavitary radiotherapy in patients with carcinoma cervix: A randomized control trial

36. Comparison of two Forced air warming blankets for prevention of intraoperative hypothermia in colorectal surgeries: A prospective randomized study

37. Comparison of WHO step 2 analgesic drug versus step 3 analgesic drug in Stage 4 opioid-naive lung cancer patients presenting to pain clinic with moderate to severe pain in terms of pain relief and quality of life at 3 weeks follow up: A randomized prospective study

38. Development of tool to assess total pain in cancer patients

39. Early pain intervention in cancer pain patients improves quality of pain relief, decreases analgesic requirement and thus improves quality of life

40. Effect of adding dexamethasone to ropivacaine on ultrasound guided serratus anterior plane block for modified radical mastectomy: A prospective randomized controlled pilot study

41. Effect of autonomic nervous system dysfunction in breast cancer patients on post induction and early intraoperative hypotension: A prospective observational study

42. Effect of Patient Controlled Epidural Analgesia (PCEA) and Intravenous Patient Controlled Analgesia (IVPCA) on postoperative inflammatory response and cancer recurrence in patients undergoing abdominal oncosurgery, A prospective randomized controlled trial

43. Effect of perioperative pregabalin on incidence of chronic post mastectomy pain syndrome—A prospective randomized placebo-controlled pilot study

44. Effectiveness of Intercostal Radio Frequency Ablation for the Management of Chronic pain after thoracic surgery
45. Effectiveness of the Certificate Course in Essentials of Palliative Care programme on the knowledge in palliative care among the participants: A cross-sectional interventional study
46. Effects of physiotherapy on neck and shoulder movements and mouth opening in patients operated for oral cancer and their quality of life, A pilot study
47. End of life care practice at a tertiary cancer centre in India: An observational study
48. Exploratory Cross-Sectional study to identify the social contents of pain in cancer patients
49. Incidence and risk factors for postoperative nausea vomiting in cancer surgeries: A prospective observational study
50. Indwelling venous catheter care in oncology setup—A pilot single center prospective observational study
51. Intraoperative celiac plexus neurolysis for pain relief in unresectable pancreatic, gastric and gall bladder cancer
52. Knowledge, attitude and perception regarding morphine use in Indian cancer patients
53. Nasotracheal intubation in patients with oropharyngeal carcinoma under general anaesthesia: A comparative evaluation between fiberoptic bronchoscope and C-MAC D blade video laryngoscope
54. Palliative Care Needs Assessment in Patients Suffering from Advanced Chronic Obstructive Pulmonary Disease (COPD)/ Interstitial Lung Disease (ILD): A prospective study
55. Palliative Care: Promoting Access and International Cancer Experience in India Collaborative (PC-PAICE India Collaborative)
56. Pattern of presentation of breast cancer related lymphedema and its impact on quality of life of breast cancer patients attending pain and palliative care clinic
57. Perioperative airway management choices in head and neck cancer patients: A retrospective analysis in a tertiary care center
58. Predicting difficult laryngoscopy in oral cancer patients by clinical and radiological parameters—A prospective, observational study
59. Prediction of infection in postoperative cases of gastrointestinal malignancy by analysis of thrombopoetin
60. Prevalence and factors affecting dyspnea in advanced cancer patients presenting in palliative care unit at a tertiary cancer centre in India
61. Prevalence and factors associated with cancer related neuropathic pain in India: A cross sectional study
62. Prevalence and predictors of insomnia in cancer patients presented to palliative care unit of a tertiary care center in India
63. Prevalence and risk factors of cognitive dysfunction in advanced cancer patients admitted in palliative care unit
64. Prevalence of breakthrough cancer pain and its impact on quality of life in cancer patients at regional cancer centre, India: A cross-sectional study
65. Prevalence of chemotherapy induced peripheral neuropathy in a palliative care setup and its impact on the quality of life of cancer patients
66. Prevalence of Pain Among Inpatients at All India Institute of Medical Sciences—New Delhi
67. Prospective, randomized, double blinded comparison of intranasal Dexmedetomidine vs intranasal ketamine for efficacy of sedation in preschool children undergoing radiotherapy procedures
68. Quality of life and symptom burden in patients with hematological malignancies receiving hematopoietic stem cell transplantation—A prospective observational study
69. Randomized control trial to evaluate the efficacy of scrambler therapy in the management of pain due to cancers of head, neck and thoracic origin
70. Safety and efficacy of neoadjuvant chemotherapy in stage IIB and IIA NSCLC: Single arm phase II study
71. Single injection US guided ESP block compared to GA in patients undergoing APBI—A randomized controlled trial
72. The journey of cancer patients from symptom onset to the beginning of treatment in a cancer hospital in India
73. To Compare Clinical Versus Ultrasound assessment of correct placement of Proseal laryngeal mask airway—A prospective randomized study
74. To compare the effectiveness of Duloxetine vs Gabapentin on neuropathic pain intensity in patients with chemotherapy-induced peripheral neuropathy: A double-blind randomized controlled trial
75. To determine the financial burden in palliative care patients attending a tertiary care centre: A prospective observational study assessment of quality of life in head and neck cancer patients visiting palliative care outpatient department
76. To evaluate the comparative efficacy and safety of Gabapentin, Duloxetine and Pregabalin in patients with Chemotherapy Induced Painful Neuropathy (CIPN): A randomized controlled pilot trial
77. To study and analyze the pattern of symptoms of patients presenting in palliative care ward at Regional cancer Center of India
78. To study the clinical correlation between Chemotherapy Induced Peripheral Neuropathy (CIPN) and deficiency of vitamin b12, vitamin d3, calcium and omega 3 fatty acids
79. Validation of an Indian Palliative Care Spiritual Distress Scale

**Laboratory Oncology**

1. A study of plasma cell and B-cell compartment in Plasma Cell Proliferative Disorders (PCPD)
2. Establishment of standard and State of the Art molecular procedures for monitoring Minimal Residual Disease (MRD) and identification of ABL kinase domain mutations in Chronic Myeloid Leukemia (CML)
3. GS based characterization of pathways involved in the development of breast cancer among Indian women
4. Identification of tyrosine kinase lesions in B-ALL
5. Minimally invasive evaluation of genomic aberrations in Multiple Myeloma
6. Molecular biology of immature T-ALL
7. Study of efficacy of various preservatives as compared to formalin-based solutions being used in embalming for transportation purpose

**Medical Oncology**

1. A pilot study to assess safety and efficacy of modified FOLFIRINOX in unresectable Gall Bladder Cancer
2. A Prospective Randomized Control Trial of Goal directed Vs Standard Fluid Therapy in Cytoreductive Surgery with Hyperthermic Intraperitoneal Chemotherapy
3. A prospective, Interventional study assessing response to Cytarabine, Daunorubicin and Etoposide (ADE) for first relapse of Paediatric Acute Myeloid Leukemia
4. A study to determine the association of trace elements and heavy metals with lung cancer and their correlation with smoking
5. A two-arm randomized open label prospective parallel design superiority Phase II multicentric clinical trial to evaluate the efficacy of a doublet second line chemotherapy versus monotherapy in advanced unresectable or metastatic gall bladder cancer progressing on first line chemotherapy
6. Adjuvant Chemotherapy or Chemo-radiation in Gall Bladder Cancer: A Phase III Randomized Controlled Study (ACCeleRate trial)
7. Analysis of clinic pathological features, molecular profile and survival outcome of lung cancer patients below 40 years
8. Analysis of Diffuse Large B Cell Lymphoma (DLBCL)
9. Analysis of locally advanced breast cancer
10. Analysis of triple negative breast Cancer
11. Bortezomib, lenalidomide and dexamethasone (VRd) versus bortezomib, cyclophosphamide and dexamethasone (VCd) as induction therapy in untreated multiple myeloma: A phase III randomized study
12. Bortezomib, lenalidomide and dexamethasone-based consolidation therapy after Autologous Hematopoietic Stem Cell Transplantation in multiple myeloma: A single arm prospective study
13. Comparison of “Multigene hereditary panel testing” profiles in breast cancer patients qualifying and not qualifying the NCCN 2018 criteria for genetic testing: A prospective study in North Indian population
14. Concurrent Chemotherapy and External Radiation Therapy: An Open Label Non-Inferiority Phase III Randomized Controlled Trial of Weekly versus Three Weekly Cisplatin and Radical Radiotherapy in Locally Advanced Head and Neck Squamous Cell Carcinoma
15. Early stoppage of empirical antibiotic therapy at clinical improvement in pediatric cancer patients with high risk febrile neutropenia, A randomized open label clinical trial
16. Effect of Non-ionizing Electromagnetic Field (EMF) on human health
17. Gene expression profile and its correlation with mitochondrial energy metabolism in pediatric AML
18. Impact of serum galactomannan assay on diagnosis and outcome of invasive fungal infections in high risk febrile neutropenia
19. Minimal Residual Disease in Multiple Myeloma
20. Olanzapine for prevention of nausea and vomiting in children and adolescents receiving highly emetogenic chemotherapy (HEC): An investigator initiated, randomized, open-label trial
22. Pre and Post-transplant evaluation of natural killer T cells in multiple myeloma
23. Retrospective analysis of testicular Germ cell tumours treated at IRCH, AIIMS
24. Retrospective review of clinicopathological features and treatment outcomes in patients with advanced thymic tumours treated with chemotherapy
25. Role of PARP1 and γ-Glutamyl cysteine synthetase (GCS) Inhibitors on cisplatin sensitivity and DNA Methylation in ovarian cancer
26. Role of RRM1, RRM2, hENT1 and ERCC1 expression in Advanced Carcinoma of Gall Bladder treated with Gemcitabine-Platinum Doublet
27. Study of clinico-pathological characteristics and outcomes to therapy in High Risk and metastatic Endometrial cancer at a tertiary cancer centre
28. Study of efficacy and safety of neo adjuvant chemotherapy in patients with stage II B and III NSCLC
29. Study of PKCι signaling in Ovarian Serous Carcinoma
30. The role of the PARP – 1 and B- Catenin in cisplatin resistance in cervical cancer
31. Three arm phase II/III RCT in patients with unresectable/metastatic GBC with poor performance status-Best supportive care/Erlotinib/Capecitabine
32. To assess the frequency, clinicopathological, molecular correlation and outcome of brain metastasis in NSCLC patients

**Medical Physics**
1. Development of new luminescence material for dosimetry purpose
2. Calibration and use of optically stimulated luminescence dosimeter
3. Development of protocol for quality assurance of lead apron and thyroid collar
4. Development of radiochromic film dosimeter

**Radiodiagnosis**
1. Assessment of the effectiveness of Transversus Abdominis Plane (TAP) block for pain relief in percutaneous transhepatic biliary drainage in gall bladder cancer patients—A randomized control trial

**Radiation Oncology**
1. A phase II study to assess the feasibility of involved site radiotherapy for consolidation after chemo-immunotherapy in newly diagnosed patients of stage I-II nodal diffuse large B-cell lymphoma
2. A phase III multicentre trial of weekly induction chemotherapy followed by standard chemoradiation versus standard chemoradiation alone in patients with locally advanced cervical cancer
3. A pilot study to compare Interstitial Multicatheter Brachytherapy vs VMAT for APBI in early breast cancer: An adaptation, toxicity, and cosmesis comparison
4. Analysis of a prospective computerized surgical database of Rectal cancer presenting to IRCH, AIIMS
5. Assessment of brain metastasis (incidence, clinicopathological, molecular correlation and outcome) in non-small cell lung cancer (NSCLC) patients: A single arm prospective observational study
6. Assessment of early treatment response and dosimetric evaluation in locally advanced cervical cancer treated with 3D conformal radiation therapy along with concurrent cisplatin and image guided high dose rate brachytherapy
7. Comparative evaluation of acute toxicity, cosmesis and quality of life in hypofractionation versus conventional fractionation radiotherapy to whole breast and regional nodes after breast conservation surgery in breast cancer patients
8. Dosimetry and quality of life in post mastectomy breast cancer patient between 3DCRT vs VMAT
9. Evaluation of 4DCT based IMRT/VMAT and 3DCRT planning for locally advanced non-small cell lung cancer—dosimetric evaluation and early clinical outcome
10. Open label randomized control trial to compare efficacy and safety of Pemetrexed plus Carboplatin followed by maintenance Pemetrexed versus Paclitaxel plus Carboplatin followed by maintenance Pemetrexed in patients with stage IIIB or IV Non-squamous Non-Small-Cell lung cancer
11. Role of PET CT guided ICRT in cervical cancer following EBRT and conc, Cisplatin

12. Study of Clinicopathological characteristics of high risk and metastatic endometrial carcinoma and it’s outcome to therapy at tertiary care centre

13. To assess outcome of combined Plaque Brachytherapy and Transpupillary Thermotherapy in Choroidal Melanoma

**Surgical Oncology**

1. A prospective observational study comparing CT scan vs PET CT scan in carcinoma ovary for determining the preoperative disease burden and respectability

2. A prospective study to evaluate the accuracy of axillary staging using ultrasound and USG-guided fine needle aspiration cytology in early breast cancer patients in a high volume centre

3. A study of young colorectal patients—Clinical profile, treatment and relapse patterns, and learning basic laboratory techniques of molecular biology for miRNA extraction in colon cancer patients

4. Awareness and Knowledge of Indian Breast Cancer patients pertaining to genetic aspect of Breast cancer, Clinical Utility of cell-free DNA in intraoperative pleural lavage fluid and plasma for patients with resectable primary pulmonary malignancies—A pilot study

5. Efficacy of Neoadjuvant chemotherapy in carcinoma esophagus—A pilot study comparing Cisplatin+5-FU with Paclitaxel+Carboplatin

6. Evaluation of Indocyanine green dye-based navigation surgery in optimizing axillary management of carcinoma breast

7. Evaluation of Peritoneal Cancer Index (PCI) in primary advanced ovarian epithelial carcinoma amongst Indian population

8. Learning basic lab techniques and analysis of colorectal cancer data base


**Completed**

**Medical Oncology**

1. A phase III open label randomized control study to compare efficacy and safety of pemetrexed-Carboplatin versus Paclitaxel- Carboplatin as induction regimen in advanced Non-Squamous NSCLC

2. Analysis of Metastatic breast cancer

3. Early stoppage versus continuation of antimicrobial therapy in low risk pediatric cancer patients with febrile neutropenia, before recovery of counts: A randomized controlled study-DALFEN study

4. Engraftment syndrome: A retrospective analysis of experience from a tertiary care institute

5. Lymphocyte reconstitution following Autologous Stem Cell Transplantation in myeloma and lymphoma

6. Phase II randomized trial (LRvs BR) in treatment naïve follicular lymphoma

7. POEMS syndrome: Indian Experience from a tertiary care institute

8. Role of Bone Marrow Microenvironment in Multiple Myeloma

9. Study to evaluate the anti-emetic effect of Aprepitant as an add-on therapy in children and adolescents receiving AML remission induction chemotherapy: An investigator-initiated, randomized, open label trial

10. To study clinical and biological significance of mutations in mitochondrial DNA regulatory region in acute myeloid leukemia

11. To study the Wnt signaling molecules and their correlation with common mutation (FLT3, CEBPa) in Acute myeloid leukemia

12. Weekly paclitaxel in combination with carboplatin every 3 weeks for advanced epithelial ovarian Cancer

**Medical Physics**

1. Development of protocol for quality assurance of medical image laser printer

2. Development of protocol for quality assurance of fluoroscopy

**Radiation Oncology**

1. Evaluation of patient specific pretreatment verification methods for Intensity Modulated Radiotherapy Techniques

2. Efficacy of Neoadjuvant chemotherapy in carcinoma esophagus—A pilot study comparing Cisplatin+5-FU with Paclitaxel+ Carboplatin
3. Fifteen years outcome of metastatic colorectal cancer from an Indian tertiary cancer centre: A retrospective study
4. Hypofractionated radiotherapy with concurrent chemotherapy vs Conventional concurrent chemo-radiotherapy in locally advanced non-small-cell carcinoma of lung—Randomised controlled trial

**Surgical Oncology**

1. A prospective study of assessment of breast anthropometry and tumor vs breast ratio calculation using clinical and radiological methods in indian breast cancer patients
2. Awareness and knowledge of Indian breast cancer patients pertaining to genetic aspect of breast cancer—a prospective study
3. Standardizing surgico-pathological evaluation of oral squamous cell carcinomas specimens—A prospective study

**Collaborative projects**

**Ongoing**

**Laboratory Oncology**

4. Clinical significance of cell-free DNA in intraoperative pleural lavage fluid and plasma in patients undergoing pulmonary metastatectomy, Surgical Oncology
5. Determination of breakpoints of IKZF1 (IKAROS) deletions in B cell acute lymphoblastic leukemia, Instituto Nacional de Cancer Jose Gomes de Alencar da Silva, Rio de Janeiro, Brazil
6. Developing platelet based liquid biopsy assay for cancer detection—A pilot study, Medical Oncology, and Indraprastha Institute of Information Technology (IIIT) Delhi
7. Digital Holographic Microscopy of acute leukemic cell for 3D morphology-based classification, IIT, Delhi
8. Elucidation of circulating cell free miRNA in pathogenesis, disease progression and outcome in multiple myeloma using integrated bioinformatics and experimental, Biophysics
9. ICMR TASK Force Comparative study of Genetic, Clinical and Epidemiological factors of Breast Cancer in Indian population as ICMR Task Force, National Institute of Pathology, New Delhi Regional Cancer Centre Trivandrum National Institute of Cancer Prevention and Research, NOIDA
10. ICMR Task Force Genomics of gallbladder carcinoma in Indian Patients, National Institute of Pathology, New Delhi and National Institute of Cancer Prevention and Research, NOIDA
11. Identification of network pathways for drug targeting in Multiple Myeloma from NGS data using Deep Learning, IIT, Delhi
12. Minimal Residual Disease Estimation in Multiple Myeloma using Image Processing: Design and Development of Myelomaimager - an Automated Computer Assisted Tool, IIT, Delhi

**Medical Oncology**

1. Centre of Advanced Research and Excellence in AML, Laboratory Oncology
2. Lu177-PSMA therapy in metastatic CRPC, Nuclear Medicine
3. Lenvatinib in advanced thyroid cancer, Nuclear Medicine
4. A prospective study to evaluate the efficacy of PET-CT Scan in detecting residual disease in locally advanced head and neck cancers after primary treatment with definitive chemoradiotherapy, Nuclear Medicine, ENT, Radiation Oncology
5. EBV DNA PCR in clinically suspected nasopharyngeal cancer, Microbiology, ENT, Radiation oncology
6. Biomarkers for bacteremia, antimicrobial resistance and hospital acquired infections by NMR and Mass Spectrometry among febrile neutropenic patients, Microbiology
7. p53 in regulation of Epithelial-Mesenchymal Transition in breast cancer: Role of micro-RNA, IIT Delhi, Inst of Cytology, St Petersburg, Russia

**Radiodiagnosis**

1. Clinical Outcome of MRI-CT based Intracavitary brachytherapy in cervical cancer: A retrospective Clinical Study, Radiation Oncology
2. Early pain interventions in cancer pain patients improves quality of pain relief, decreases analgesic requirement and thus improves quality of life, Oncoanaesthesia and Palliative Care
3. A pilot study to compare Interstitial Multicatheter Brachytherapy (IMB) versus Volumetric modulated ARC therapy for APBI in early breast cancer: An adaptation, toxicity and cosmesis comparison, Radiation Oncology
4. Assessment Of Early Treatment Response And Dosimetric Evaluation In Locally Advanced Cervical Cancer Treated With 3d Conformal Radiation Therapy Along With Concurrent Cisplatin And Image Guided High Dose Rate Brachytherapy, Radiation Oncology

5. Correlation of Barrel Index determined by MRI in early cervical cancer with operability, lymph node status and local extension of the disease, Obstetrics and Gynaecology

6. Role of MR guided biopsy in detecting prostate cancer, Nuclear Magnetic Resonance

7. Assessment of brain metastases in advanced NSCLC, Medical Oncology

8. Comparison of CT vs PET CT in Ca ovary for accuracy of staging, disease burden and prediction of resectability and determination of PCI, a prospective study, Surgical Oncology

9. A prospective study to determine the efficacy of Positron Emission Tomography/Computed Tomography (PET/CT) in detecting residual disease in Locally Advanced Head and Neck Squamous Cell Carcinoma managed with primary Chemo- Radiation Therapy, Nuclear Medicine

10. Development of tissue equivalent optically stimulated luminescent materials for measurement of low doses of medical radiation, Medical Physics Unit, BRAIRCH, and Department of Health Physics Inter University Accelerator Centre, New Delhi

11. Three arm phase II/III RCT comparing erlotinib plus Best Supportive Care (BSC), capecitabim plus BSC and BSC only in unresectable/metastatic CAGB patients with poor performance status (ECOG PS-III), Medical Oncology

**Surgical Oncology**

**Ongoing**

1. A comprehensive analysis of mammalian Target of Rapamycin (mTOR) and Mitogen Activated Protein (MAP) Kinase signaling pathways in non-small cell lung carcinoma, Pathology

2. Differentiating inflammatory and metastatic mediastinal lymphadenopathy on 18-FDG- PET/CT in lung cancer: Role of steroid suppression, Nuclear Medicine

3. Role of nuclear receptors in pathogenesis of carcinoma gall bladder, Biochemistry,

4. A prospective study to elucidate molecular genetic risk factors of gallbladder carcinoma in Indian Population, Laboratory Oncology

5. Evaluation of Human Epididymis Protein 4 (HE4) level in the diagnosis of ovarian cancer, Laboratory Oncology

6. The phase 2 study of HIPEC and the proposed phase 3 RCT comparing between HIPEC and IP chemotherapy, TMC, Kolkata

7. Hyperthermia and immune modulation in homologous recombination stratified epithelial ovarian cancer: Development of targeted therapeutic approaches, TMC, Kolkata

8. An economic analysis of alternative treatment methods of ovarian cancer in India: An appraisal of economic burden, quality of life and mortality risk, Obstetrics and Gynaecology

9. Determining Surgical Resection Margin of Cancer by Rapid Molecular Assessment Using Mass Spectrometric Imaging, Department of Chemistry, IISER, Tirupati

**Completed**

**Medical Oncology**

1. Efficacy of neoadjuvant chemotherapy in locally advanced head and neck cancers: A randomized pilot study comparing paclitaxel+ carboplatin versus cisplatin and 5FU, Surgical Oncology

2. Efficacy of neoadjuvant chemotherapy in esophageal squamous cell carcinoma: A randomized pilot study comparing paclitaxel+ carboplatin versus cisplatin and 5FU, Surgical Oncology

**Radiodiagnosis**

1. A Prospective study to evaluate the accuracy of Axillary Staging using Ultrasound guided FNAC in early Breast cancer Patients, Surgical Oncology

2. Evaluation of Peritoneal Cancer Index (PCI) in primary advanced ovarian epithelial carcinoma amongst Indian population, Surgical Oncology

3. Predicting difficult laryngoscopy in oral cancer patients by clinical and radiological parameters—A prospective observational study, Onco Anesthesia and Palliative Medicine

**Radiation Oncology**

1. MGMT promoter methylation in primary CNS lymphoma, Medical Oncology, Pathology
2. Radiolabelling of trastuzumab with Lutetium-177: Its evaluation as a potential agent for radioimmunotherapy in breast cancer, Nuclear Medicine

Surgical Oncology

2. Outcomes of metastatic colorectal cancer over fifteen years from an Indian tertiary care cancer center: A retrospective study, Medical Oncology

PUBLICATIONS

Onco-Anaesthesia and Palliative Medicine
Journals: 32 Abstracts: 16

Delhi Cancer Registry
Journals: 7

Laboratory Oncology
Journals: 28 Abstracts: 6 Chapters in Books: 2

Medical Oncology
Journals: 64 Abstracts: 29

Medical Physics
Journals: 3

Radiodiagnosis
Journals: 8 Abstract: 1

Radiation Oncology
Journals: 40 Abstracts: 17

Surgical Oncology
Journals: 18 Abstracts: 2

PATIENT CARE

Total Bed Strength: 182
Medical Oncology: 78 Radiation Oncology: 37
Surgical Oncology: 61 Palliative Care Unit: 6

OPD Attendance: 1,71,778
New Patient’s Registered: 13,886 Revisits: 1,67,680

Various OPD/Clinics

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Grand Total=13,886+1,67,680=1,81,566

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<th>Admissions</th>
<th>Discharges</th>
<th>Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>11,965</td>
<td>11,618</td>
</tr>
<tr>
<td>Short/Day Care</td>
<td>34,440</td>
<td>34,120</td>
</tr>
<tr>
<td>Total</td>
<td>46,405</td>
<td>45,738</td>
</tr>
</tbody>
</table>

Total Deaths: 349

Electrocardiogram (ECG) | 4,519 | OPD procedures | 6,836 |

OPD Chemotherapy Services (Treatment Room No. 15)

| Adult Male | 5,134 | Male child | 5,940 |
| Adult Female | 2,447 | Female child | 2,422 |
| Total       | 15,943 |

OPD Attendance

<table>
<thead>
<tr>
<th>Month and year</th>
<th>New patients</th>
<th>Old patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>April 2018</td>
<td>592</td>
<td>499</td>
</tr>
<tr>
<td>May 2018</td>
<td>727</td>
<td>610</td>
</tr>
<tr>
<td>June 2018</td>
<td>589</td>
<td>517</td>
</tr>
<tr>
<td>July 2018</td>
<td>627</td>
<td>551</td>
</tr>
<tr>
<td>August 2018</td>
<td>662</td>
<td>605</td>
</tr>
<tr>
<td>Month</td>
<td>Total</td>
<td>502</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td>September 2018</td>
<td>567</td>
<td>502</td>
</tr>
<tr>
<td>October 2018</td>
<td>617</td>
<td>531</td>
</tr>
<tr>
<td>November 2018</td>
<td>583</td>
<td>448</td>
</tr>
<tr>
<td>December 2018</td>
<td>599</td>
<td>516</td>
</tr>
<tr>
<td>January 2019</td>
<td>677</td>
<td>512</td>
</tr>
<tr>
<td>February 2019</td>
<td>681</td>
<td>507</td>
</tr>
<tr>
<td>March 2019</td>
<td>624</td>
<td>543</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,545</strong></td>
<td><strong>6,341</strong></td>
</tr>
</tbody>
</table>

**Geographical Distribution of New Patients**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>State/Country</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Andhra Pradesh</td>
<td>13</td>
</tr>
<tr>
<td>2.</td>
<td>Andaman Nicobar</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Assam</td>
<td>34</td>
</tr>
<tr>
<td>4.</td>
<td>Arunachal Pradesh</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>Bihar</td>
<td>1,876</td>
</tr>
<tr>
<td>6.</td>
<td>Chandigarh</td>
<td>3</td>
</tr>
<tr>
<td>7.</td>
<td>Chhattisgarh</td>
<td>30</td>
</tr>
<tr>
<td>8.</td>
<td>Dadar and Nagar Haveli</td>
<td>-</td>
</tr>
<tr>
<td>9.</td>
<td>Daman and Diu</td>
<td>1</td>
</tr>
<tr>
<td>10.</td>
<td>Delhi</td>
<td>4,179</td>
</tr>
<tr>
<td>11.</td>
<td>Goa</td>
<td>2</td>
</tr>
<tr>
<td>12.</td>
<td>Gujrat</td>
<td>5</td>
</tr>
<tr>
<td>13.</td>
<td>Haryana</td>
<td>1,585</td>
</tr>
<tr>
<td>14.</td>
<td>Himachal Pradesh</td>
<td>47</td>
</tr>
<tr>
<td>16.</td>
<td>Jharkhand</td>
<td>147</td>
</tr>
<tr>
<td>17.</td>
<td>Kerala</td>
<td>16</td>
</tr>
<tr>
<td>18.</td>
<td>Karnataka</td>
<td>6</td>
</tr>
<tr>
<td>19.</td>
<td>Lakshdeep</td>
<td>-</td>
</tr>
<tr>
<td>20.</td>
<td>Madhya Pradesh</td>
<td>242</td>
</tr>
<tr>
<td>21.</td>
<td>Maharashtra</td>
<td>17</td>
</tr>
<tr>
<td>22.</td>
<td>Meghalaya</td>
<td>-</td>
</tr>
<tr>
<td>23.</td>
<td>Manipur</td>
<td>47</td>
</tr>
<tr>
<td>24.</td>
<td>Mizoram</td>
<td>5</td>
</tr>
<tr>
<td>25.</td>
<td>Nagaland</td>
<td>8</td>
</tr>
<tr>
<td>26.</td>
<td>Orissa</td>
<td>47</td>
</tr>
<tr>
<td>27.</td>
<td>Pondicherry</td>
<td>4</td>
</tr>
<tr>
<td>28.</td>
<td>Punjab</td>
<td>81</td>
</tr>
<tr>
<td>29.</td>
<td>Rajasthan</td>
<td>296</td>
</tr>
<tr>
<td>30.</td>
<td>Sikkim</td>
<td>33</td>
</tr>
<tr>
<td>31.</td>
<td>Tamilnadu</td>
<td>11</td>
</tr>
<tr>
<td>32.</td>
<td>Telangana</td>
<td>03</td>
</tr>
<tr>
<td>33.</td>
<td>Tripura</td>
<td>7</td>
</tr>
<tr>
<td>34.</td>
<td>Uttar Pradesh</td>
<td>4,415</td>
</tr>
<tr>
<td>35.</td>
<td>Uttaranchal</td>
<td>395</td>
</tr>
<tr>
<td>36.</td>
<td>West Bengal</td>
<td>133</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>13,832</strong></td>
</tr>
<tr>
<td>Country</td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Afghanistan</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Bahrain</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Camroon</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Fiji</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Iraq</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Kazakstan</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Nepal</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>54</td>
<td></td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td><strong>13,886</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Laboratory Oncology Services**

<table>
<thead>
<tr>
<th>Service</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haemogram: Haemoglobin, Total leucocyte count, Platelets</td>
<td>51,137</td>
</tr>
<tr>
<td>Peripheral blood smear</td>
<td>8,012</td>
</tr>
<tr>
<td>Bone marrow aspiration</td>
<td>4,373</td>
</tr>
<tr>
<td>Cyto-chemistry</td>
<td>1,163</td>
</tr>
<tr>
<td>Serum protein electrophoresis</td>
<td>4,213</td>
</tr>
<tr>
<td>Immunofixation</td>
<td>2,782</td>
</tr>
<tr>
<td>Urine electrophoresis</td>
<td>1,800</td>
</tr>
<tr>
<td>Tumour markers</td>
<td>3,366</td>
</tr>
<tr>
<td>Flowcytometry</td>
<td>34,324</td>
</tr>
<tr>
<td>Cerebrospinal fluid</td>
<td>1,147</td>
</tr>
<tr>
<td>Erythrocyte sedimentation rate</td>
<td>573</td>
</tr>
<tr>
<td>Molecular biology</td>
<td>4,416</td>
</tr>
<tr>
<td>Serum freelight chain</td>
<td>3,886</td>
</tr>
<tr>
<td>Cytology</td>
<td>-</td>
</tr>
<tr>
<td>Beta 2–microglobulin</td>
<td>462</td>
</tr>
<tr>
<td>Cytology</td>
<td>-</td>
</tr>
<tr>
<td>HPB DNA</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,21,654</td>
</tr>
</tbody>
</table>

**Apheresis**

<table>
<thead>
<tr>
<th>Service</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Donor Platelets</td>
<td>2,606</td>
</tr>
<tr>
<td>Peripheral Blood Stem Cell–Harvest</td>
<td>231</td>
</tr>
<tr>
<td>Haemogram</td>
<td>24,002</td>
</tr>
<tr>
<td>Plasma</td>
<td>-</td>
</tr>
<tr>
<td>No. of Granulocytes</td>
<td>57</td>
</tr>
<tr>
<td>Plasma Exchange</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>26,907</td>
</tr>
</tbody>
</table>

**Medical Oncology Laboratory Services**

<table>
<thead>
<tr>
<th>Service</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cytogenetics for detection of Philadelphia chromosome</td>
<td>317</td>
</tr>
<tr>
<td>Cytogenetics for Chimerism</td>
<td>01</td>
</tr>
<tr>
<td>RT-PCR for detection of P210 and P190 translocation in CML (Qualitative)</td>
<td>475</td>
</tr>
<tr>
<td>RQ-PCR for detection of P210 and P190 translocation in CML (Quantitative)</td>
<td>17</td>
</tr>
<tr>
<td>CD 34 counts by flowcytometry</td>
<td>371</td>
</tr>
<tr>
<td>CD 3 counts by flowcytometry</td>
<td>13</td>
</tr>
<tr>
<td>MNC counts</td>
<td>231</td>
</tr>
</tbody>
</table>
Dr Atul Sharma participated in superspeciality medical camp, 3-30 September 2018, Leh (Ladakh), J&K

Dr Chandra Prakash Prasad started two biochemical assays for cancer patients in Department from April 2018 onwards:
(i) Serum LDH Assay and (ii) Serum Mg2+ Assay

Medical Physics

<table>
<thead>
<tr>
<th>Activity</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of blood bags irradiated</td>
<td>1,152</td>
</tr>
<tr>
<td>Quality assurance test done on X-Ray machines</td>
<td>2,322</td>
</tr>
<tr>
<td>Quality assurance test on film processor at Radiology (Main)</td>
<td>27</td>
</tr>
<tr>
<td>Radiation output measurements in X-Ray units</td>
<td>398</td>
</tr>
<tr>
<td>Quality assurance test done on film processor at AIIMS</td>
<td>76</td>
</tr>
<tr>
<td>Radiation protection survey measurements</td>
<td>2</td>
</tr>
<tr>
<td>Advise in inadvertent exposure to pregnancy</td>
<td>9</td>
</tr>
<tr>
<td>QA tests done on lead apron at AIIMS</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>4,017</td>
</tr>
</tbody>
</table>

Radiotherapy Services

<table>
<thead>
<tr>
<th>Service</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cases on Radiotherapy</td>
<td>65,792</td>
</tr>
<tr>
<td>2. Cases on Brachytherapy</td>
<td>835</td>
</tr>
<tr>
<td>3. Treatment Planning And Simulations</td>
<td>3,894</td>
</tr>
<tr>
<td>4. Two And Three Dimensional Dose Distributions</td>
<td>619</td>
</tr>
<tr>
<td>5. Compensators</td>
<td>447</td>
</tr>
<tr>
<td>6. Shielding Blocks Immobilization Devices And Orifits</td>
<td>2,168</td>
</tr>
<tr>
<td>7. Radiation Review Clinic</td>
<td>1,667</td>
</tr>
<tr>
<td>8. Planning C.T.</td>
<td>1,975</td>
</tr>
<tr>
<td>Total</td>
<td>77,397</td>
</tr>
</tbody>
</table>

Radiodiagnosis

<table>
<thead>
<tr>
<th>Test</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.T. Scan</td>
<td>7,448</td>
</tr>
<tr>
<td>Ultrasound</td>
<td>7,045</td>
</tr>
<tr>
<td>Mammography</td>
<td>2,086</td>
</tr>
<tr>
<td>X-Rays (Routine)</td>
<td>17,430</td>
</tr>
<tr>
<td>Doppler</td>
<td>296</td>
</tr>
<tr>
<td>Ultrasound and CT guided interventions</td>
<td>1,807</td>
</tr>
<tr>
<td>Fluroscopy Investigations and guided interventions</td>
<td>765</td>
</tr>
<tr>
<td>Intervention Mammography</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>36,905</td>
</tr>
</tbody>
</table>

Onco-Anaesthesia and Palliative Medicine

1. Started ‘Pain Policy’ at IRCH, AIIMS. The aim of the policy is; IRCH is committed to treat pain of all registered patients

2. Indian Association of Palliative Care’s Certificate Course in Palliative Care Unit of Anesthesiology, Dr BRA, IRCH is Nodal Center for conducting Indian Association of Palliative Care’s Certificate Course in Palliative Care twice in a year

3. Research on psychosocial and spiritual aspect of pain in Cancer patients

4. International collaborative research started in area of Pain and Palliative Care
**Laboratory Oncology**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Investigation</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Haemogram</td>
<td>51,137</td>
</tr>
<tr>
<td>2.</td>
<td>Bone Marrow</td>
<td>4,373</td>
</tr>
<tr>
<td>3.</td>
<td>Peripheral blood smear</td>
<td>8,012</td>
</tr>
<tr>
<td>4.</td>
<td>Serum Protein Electrophoresis</td>
<td>4,213</td>
</tr>
<tr>
<td>5.</td>
<td>Urine Electrophoresis</td>
<td>1,800</td>
</tr>
<tr>
<td>6.</td>
<td>Immunofixation</td>
<td>2,782</td>
</tr>
<tr>
<td>7.</td>
<td>Serum Free Light Chain</td>
<td>3,886</td>
</tr>
<tr>
<td>8.</td>
<td>ESR</td>
<td>573</td>
</tr>
<tr>
<td>9.</td>
<td>Cytochemistry</td>
<td>1,163</td>
</tr>
<tr>
<td>10.</td>
<td>Cytospin</td>
<td>1,147</td>
</tr>
<tr>
<td>11.</td>
<td>Flowcytometry</td>
<td>34,324</td>
</tr>
<tr>
<td>12.</td>
<td>Molecular Studies</td>
<td>4,416</td>
</tr>
<tr>
<td>13.</td>
<td>Beta 2 microglobulin</td>
<td>462</td>
</tr>
<tr>
<td>14.</td>
<td>Tumor Marker</td>
<td>3,366</td>
</tr>
<tr>
<td>15.</td>
<td>HPV DNA Test</td>
<td>1,397</td>
</tr>
<tr>
<td>16.</td>
<td>Guided Cytopathology</td>
<td>610</td>
</tr>
</tbody>
</table>

**Surgical Oncology**

- Total no. of minor operations and endoscopic procedures performed: 10,477
- Total no. of major cancer operations performed: 1,592
  - Overall Bed Occupancy: 100%
  - Operative Mortality: 0.7%
  - Re-operation rate: 1.5%
  - Re-admission rate: 0.5%
  - Perioperative morbidity (CD Grades III and IV): 5%

**Other salient initiatives**

- NCI—AIIMS—The department of Surgical Oncology has actively contributed for planning, procurement and commissioning of Surgical Oncology services at NCI Jhajjar. Oncology OPD services started in February 2019.
- Organized: (i) Interactive Meeting of Breast Cancer Survivors and Clinicians in collaboration with ‘Cancer Sahyog’ and (ii) Workshop on ‘Role of Physiotherapy in Rehabilitation of Breast Cancer patients’ along with Physiotherapy division of AIIMS.

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Onco-Anaesthesia and Palliative Medicine**

- **Professor Sushma Bhatnagar** is President of Indian Association of Palliative Care; Member of Scientific Committee of World Congress on Pain to be held at Amsterdam in August 2020; Scientific Committee of World Congress on Pain to be held at Boston during 12-16 September 2018; Member of Implementation Group—Lancet Commission Global Access to Pain Control and Palliative Care, 2018; Recipient of 2018 International Innovation Grant (Project ID 12554) from Conquer Cancer Foundation by American Society of Clinical Oncology; Is ‘Council member’ International Association of Study of Pain (IASP) Council for a period of six years till 2023; ‘Chief Editor’ of Indian Journal of Palliative Care since 2009; Is appointed as Board of Directors of International Association of Hospice and Palliative Care (IAHPC) in 2014 for three years; ‘Deputy Team leader’ of Training-of-Trainers in Palliative Care Programme by Asia Pacific Hospice Palliative Care Network, 2012-2018; Appointed as ‘Master mentor’ of Palliative Care Programme in India; Is Reviewer of articles for Lancet Oncology and British Journal of Anaesthesia; Expert in Selection Committee for recruitment against faculty posts in AIIMS, Raipur; Nominated as subject expert in selection committee for recruitment against faculty posts in AIIMS, 4 January 2019, Raipur; For evaluation to extend the Palliative Care Programme for Cancer Treatment Centres in India, Palliative Care Training Programme for Cancer Treatment Centre in India (Evaluation) Kasturba Medical College, 24 October 2018, Manipal.

- **Dr Rakesh Garg** received ISA Bhopal Award 2018 for Academic Excellence Dr Rakesh Garg, Award conferred by Indian Society of Anaesthesiologists; Dr Y.G. Bhoj Raj Award 2018—Best Review Article in IJA, Award conferred by Indian Society of Anaesthesiologists; Editorial Board Member of the Journal “AIRWAY”: Official publication of the All India Difficult Airway Association; Is Associate Editor for Indian Journal of Anaesthesia; Journal of Anesthesiology and Clinical Pharmacology; Journal of Medical Case Reports which are Pubmed indexed peer reviewed journals.
Dr Sanjeev Kumar Gupta was recipient of AIIMS Oncology Research Award 2019—Second Prize for outstanding publication (Clinical Research) titled, “Molecular genetic profile in BCR-ABL1 negative pediatric B-cell acute lymphoblastic leukemia can further refine outcome prediction in addition to that by end-induction minimal residual disease detection”, at AIIMS, New Delhi on 26 March 2019; Best Reviewer Award—Indian Journal of Hematology and Blood Transfusion at the 59th Annual Conference of Indian Society of Haematology and Blood Transfusion, 25-28 October 2018, at Kochi, Kerala; Award in Hindi essay-competition at AIIMS, New Delhi, September 2018; Was Judge for Poster session at 29th Annual DSH conference, 23 September 2018, at UCMS, Delhi; Chairperson in TCS conference “Case presentation session”, 11th Annual The Cytometry Society Meeting, 29 October-1 November 2018, at AIIMS, New Delhi; Chairperson in TCS workshop- “CLPD session”, 11th Annual The Cytometry Society Meeting and Workshops, 29 October-1 November 2018, at AIIMS, New Delhi; Chairperson for a session on “T cell lymphoma”, International CME on Lymphoma, 6-7 March 2019, at AIIMS, New Delhi.

Dr Anita Chopra received membership of National Academy of Medical Science, 2018 as an acknowledgement of achievements in the profession and DBT Wellcome Trust India alliance intermediate career fellowship for clinicians.

Dr Pranay Tanwar was invited as external examiner of Master of Philosophy at The University of Newcastle, Australia. Received travel Grant from SERB, DST and Local hospitality from organizers to attend SOHO-2018, 12-15 September 2018 at Houston, Texas, USA; AIIMS, New Delhi Travel Grant to Attend Annual Meeting of Australasian Cytometry Society 21-24 October 2018 at Adelaide, Australia. He was Chairperson in Lung Cancer update in Session-1, 9 to 10 am, 12-13 May 2018, at AIIMS, New Delhi; Chairperson for a session on “T cell lymphoma”, International CME on Lymphoma, 6-7 March 2019, at AIIMS, New Delhi; Chairperson for National Conference on Frontiers in Health Sciences (NCFHS-2019) is scheduled to be held on 11-12 March 2019 at the Institute of Medical Sciences, Banaras Hindu University (BHU), Varanasi. He is reviewer of various extramural projects at SERB, DST under the category of Early Career Research and IMPRINT Grant.

Dr Nishkarsh Gupta received membership of National Academy of Medical Science, 2018 as an acknowledgement of achievements in the profession and DBT Wellcome Trust India alliance intermediate career fellowship for clinicians.

Dr Rajeev Kumar Malhotra received Dr Abhaya Indrayan Award for recognition of paper title “Receiver Operating Characteristic (ROC) Curve for Medical Research” received at Annual conference of National Academy of Medical Sciences organised at Mahatma Gandhi Medical College and Research Institute, Pondicherry on 26-28 October 2018.

Dr Atul Sharma organized an international meeting “Hematology Update Year in Review 2018”, on 15-16 February 2019 at New Delhi; Chair the session—Impact of Next-Generation Sequencing (NGS) on Treatment Selection in Acute Myeloid Leukemia (AML) at ISCO, Laboratory Oncology; Received travel Grant from SERB, DST and Local hospitality from organizers to attend SOHO-2018, 12-15 September 2018 at Houston, Texas, USA; AIIMS, New Delhi Travel Grant to Attend Annual Meeting of Australasian Cytometry Society 21-24 October 2018 at Adelaide, Australia. He was Chairperson in Lung Cancer update in Session-1, 9 to 10 am, 12-13 May 2018, at AIIMS, New Delhi; Chairperson for a session on “T cell lymphoma”, International CME on Lymphoma, 6-7 March 2019, at AIIMS, New Delhi; Chairperson for National Conference on Frontiers in Health Sciences (NCFHS-2019) is scheduled to be held on 11-12 March 2019 at the Institute of Medical Sciences, Banaras Hindu University (BHU), Varanasi. He is reviewer of various extramural projects at SERB, DST under the category of Early Career Research and IMPRINT Grant.
Professor Sameer Bakhshi received AIIMS Excellence Research Award-2018 for outstanding published research work during the year 2017-2018; Was awarded fellowship of National Academy of Sciences (NASI) 2018.

Dr Ranjit Kumar Sahoo received ASH-VTP (Visitor Training Programme) award in 2018; IACA Fellowship in 2019; Observership in Leukemia Department at MDACC, Houston, Texas, September 2018.

Dr Chandra Prakash Prasad is working group committee member of HTA on ‘Breast Cancer Screening’ organized by Ministry of Health and Family Welfare, Government of India at NHRC, New Delhi organized on 3 May 2018; European Association for Cancer Research (EACR) Ambassador from June 2018-till date; Panelist for Best of ASCO Abstracts on Breast Cancer Metastasis at Best of ASCO Meeting on 28 July 2018; Organized workshop for ‘Automated Nucleic Acid Extraction System for ctDNA-by Promega’ on 14 August 2018; Was external expert for Practical Exam/Viva voice for Animal Tissue Culture (BT355) on 18 December 2018 at Department of Biotechnology at Guru Gobind Singh Indraprastha University, New Delhi; Was Chairperson for CML Session at ‘Hematology Update Year In Review 2019’ on 15 February 2019.

Dr Thoudam Debraj Singh was awarded “Reviewer of the Year Award 2018-19” by Biomedical and Pharmacological Journal; Was Chairperson for Non-Hodgkin Lymphoma session at ‘Hematology Update Year in Review 2019’ on 15 February 2019.

Dr Mayank Singh organized workshop for ‘Automated Nucleic Acid Extraction System for ctDNA-by Promega’ on 14 August 2018, Delhi; Was Chairperson for multiple myeloma session at ‘Hematology Update Year in Review 2019’ on 15 February 2019.

Medical Physics

Professor Pratik Kumar elected as Vice-President of Association of Medical Physicists of India (AMPI); Was nominated by DST as member, Facility Management Committee for the Sophisticated Analytical Instrument Facility (SAIF) at AIIMS, Delhi; Got invited by Biotechnology Industry Research Assistance Council (BIRAC), DBT for evaluating the projects under Social Innovation Programmes for Products Affordable and Relevant to Societal Health (SPARSH); By ICMR to attend meeting of Innovation and Translational Research (ITR) Division to review concept proposals for funding; By BIRAC and Ministry of Electronics and Information Technology (MeitY) to review projects funded under Industry Innovation Programme on Medical Electronics (IIPME); By BIRAC to Expert Selection Committee Meeting for final selection of applications for Biotechnology Ignition Grant (BIG); Member, sub-committee of 115th Technical Expert Committee (TEC) on Medical Devices and Diagnostics, BIRAC; Member, 2nd Scientific Advisory Group for Medical Devices and Diagnostics under National Biopharma Mission, BIRAC; Member, TEC, SPARSH, BIRAC; Was referee for the manuscripts submitted to Thermochimica Acta (Elsevier), Indian J Radiol Imag, J Luminescence, Applied Radiation and Isotopes and J Med Phys; Question Setter for Bachelor of Radiotherapy / Radiology Technology at AMU Aligarh, KG MU Lucknow, PGIMER, Chandigarh, IGIMS Patna and MSc Med. Tech Radiodiagnosis at PGIMER Chandigarh; Was panelist for the theme “Benefits versus risk in radiological examinations”, 39th Annual Conference of Association of Medical Physicists of India, AMPICON-2018, Chennai, 2-4 November 2018; Chaired a session at 5th National Conference of Indian Society of Radiographers and Technologists, KG MU, Lucknow, 27-28 October 2018; At 6th World Congress on Nanomedical Sciences and Chemistry Biology Interface Synergistic in New Frontiers, 7-9 January 2019, Vigyan Bhawan, New Delhi; Chaired meetings of Exposure Investigation Committee for Radiation Facilities of Northern Region (EIC-NR) at Northern Regional Regulatory Centre (NRRC), AERB, New Delhi; Was editor, Medical Physics Gazette, newsletter of Association of Medical Physicists of India (AMPI); Member, Editorial Board, Journal of Medical Physics; Member Electro-medical Equipment Sectional Committee, Bureau of Indian Standards (BIS), New Delhi.

Radiodiagnosis

Dr Mukesh Kumar Yadav was reappointed as treasurer for Society for Emergency Radiology India for 2019-2020.

Radiation Oncology

Professor GK Rath delivered Dhanvantri Oration of Mahatma Gandhi University of medical sciences and technology, Jaipur on 12 May 2018; Was chairman of search committee for appointing a new director for Regional Cancer Centre, Thiruvananthapuram; Is member of delegation to London to visit Guys Cancer Center and its satellite unit at SIFICUP from 29 to 31 July 2018; Was invited for the ground breaking ceremony of cancer care facilities as part of the cancer control programme in partnership with Govt of Assam on 18 June 2018; Invited for the meeting for cancer care with Hon’ble Chief Minister of Andhra Pradesh at Amravati on 21 April 2018; Participated in the NCI India-IBSD Joint cancer research initiative at Imphal from 16-17 April 2018; Was honoured as Guest of Honour on flag off ceremony for cancer awareness expedition from Berhampur to Pune covering 513 districts, 5 states, 1,481 km with special focus on Hausla Cancer Awareness Campaign on 2 December 2018; Participated in the site visit for the deployment of 6 MeV LINAC under Jai Vigyan II Programme from 26 to 27 April at Silchar and Head and Neck Cancer Training Programme at Dr B Borah Cancer Hospital Guwahati on 1 September 2018, organised by the National Health Mission, Assam; Is the Chairman of committee to oversee the technology transfer process of Dual energy medical LINAC being developed by SAMEER, Mumbai; PRSG
for the project Development of low cost automated screening system for cervical cancer (Cervi SCAN-II) implemented by CDAC, Thiruvananthapuram; Scientific Advisory Committee (SAC) of National Centre for Disease Informatics and Research (NCDIR), Indian Council of Medical Research, Bangalore; National steering committee for the project entitled ‘Research and development of high energy electron linear accelerator technology for medical and other applications’ being implemented by SAMEER, Mumbai and INMAS, DRDO, New Delhi; Is a member of expert Committees/ Bodies of the External Expert for developing tender specification of 4DCT Simulator along with its accessories at RMLIMS, Lucknow; Atomic Energy Regulatory Board (AERB), Government of India; Member of Research area Panel on cancer of National Centre for Disease Informatics and Research (NCDIR), Indian Council of Medical Research, Bangalore; Expert for the Faculty selection (Radiotherapy) at KGMU, Lucknow on 16 July 2018; Member of Standing Selection Committee for Department of Radiotherapy, IGIMS, Patna on 14 July 2018; Member Governing Body of AIPH University, Bhubaneswar, AIIMS, Bhopal, Super Speciality Cancer Institute and Hospital, Lucknow, Acharya Tulsi Regional Cancer Center, Bikaner, Acharya Harihara Regional Cancer Center, Cuttack and Regional Cancer Center, Agartala, and Regional Cancer center, Allahabad; Expert for technical evaluation of brachytherapy units at NEIGRIMS, Schillong on 23 June 2018; Expert group committee member for reviewing the content of online screening modules/course being developed by National Cancer Institute under National Institute of Health of US Department of Health and Human Services; Member of Standing Academic and Research Council (SARC) of CNCI, Kolkata; took part in programme in DD News on Ayushman Bharat on 14 October 2018

Professor DN Sharma was awarded the Certificate of Outstanding Contribution in Reviewing by the European Society of Radiotherapy and Oncology, The Netherlands. 

Professor Sushmita Pathy was chairperson for session in 7th Annual Conference and Workshop Association of Breast Surgeons of India (ABSICON2018), 9-11 November 2018 at New Delhi; Expert for Interview of faculty post for ILBS on 18 December, 2018 at New Delhi; Chairperson for session in International Conference of Indian Association of Palliative Care, IAPCON-2019, 8-10 February 2019 at Kochi, Kerala; Chairperson and Member Core Group Clinical Trial and Study Portolio Planning, at 1st Annual Meeting of Kolkata Gynecological Oncology Trial and Translation Research Group, 2-4 March 2019 at Kolkata; Is reviewer of abstracts International Conference of Indian Association of Palliative Care, IAPCON-2019 at Kochi, Kerala, February 2019 and reviewer in various scientific journals; Speaker in Public lecture on Childhood Cancer is Curable, J.L.N Auditorium February, 2019

Dr Subhash Gupta was chairperson for session on SBRT Lung at RGCON February 2019, Delhi; Best of ASTRO, 5-6 May 2018, Delhi, lung cancer at Lung Cancer Update—An AIIMS NCI initiative, 12-13 May 2018, Delhi; Was chairperson for two session Lung at RGCONe of Indian Association 2018, Delhi; Was Judge for Best Paper Award Session at NZAROICON, 15-16 September, Chandigarh; Best Paper Award Session at RAJAROICON, Bikaner, Rajasthan on 18-19 August 2018; Associated with the cancer screening activities of ICPO, Noida; Actively involved in medical camps organized by Ashoka mission to attend cancer patients

Dr Harish KP was chairperson for session at Lung Cancer Update 2018—An AIIMS NCI initiative on 12 May 2018 at New Delhi; Lung Track session at the Best of ASTRO on 6 May 2018 at New Delhi; Advances in adjuvant therapyst of ASTRO on 6 May 2018 at New Delhi initiative; Is member of Project Review Committee in Oncology at ICMR, New Delhi, Project Review Committee of Research Methodology Cell at ICMR, New Delhi, Tobacco Free Education Institute Committee at AIIMS, New Delhi, Committee for DPC of Radiology Technologists at AIIMS, New Delhi, Committee for DPC of Radiotherapy Technologists at AIIMS, New Delhi on 3 October 2018; Is Examiner for Final DNB Radiotherapy Practical examination at R&R Hospital, New Delhi, 9-11 May 2018; Associated with the cancer screening activities of ICPO, Noida; Actively involved in medical camps organized by Ashoka mission to Leh, 23-30 September 2018 to attend cancer patients

Surgical Oncology

Professor SVS Deo delivered the CVK Rao Memorial Oration, APASICON, Cudapha, 24-25 August 2018; “Surgical oncology Past, Present and Future; delivered the Arun Benerjee Memorial Oration, Golden Jubilee Celebrations, IPGMER, Kolkata “Computerized database Development in oncology; Was invited to deliver a Grand Round Talk by visiting International faculty at University Hospital North Midlands, UK, 24 March 2019, “Cancer Tsunami in India-Facts and Figures”; Was elected as Treasurer, Breast Surgery International, Switzerland; President “Indian Society of Peritoneal Surface Malignancies”; treasurer “Association of Breast Surgeons of India”; Vice President “NCR oncology forum”.

Dr Sunil Kumar delivered “9th Dr T N Bajpai Memorial Oration”, Fatehpur (U.P.), 8 June 2018.

Dr MD Ray was awarded FRCS from Glasgow in 2018.
10.4. Dr Rajendra Prasad Centre for Ophthalmic Sciences

Chief and Professor
Atul Kumar

Professors
Pradeep Sharma
Gita Satpathy
(Ans. Ocular Microbiology)
Ramanjit Sihota
JS Titiyal
Radhika Tandon
SK Khokhar
Shakti Kumar Gupta
Mahesh Chandra
Dilip R Shende
(Medical Superintendent)
Rajpal Vohra
(Ans. Ocular Anaesthesia)
Mandeep Singh Bajaj
Rajpal Vohra
(Ans. Ocular Anaesthesia)
Sanjay Sharma
Seema Kashyap
Namrata Sharma
(Ans. Ocular Pathology)
Seema Kashyap
(Titiyal)
Pradeep Venkatesh
Neelam Pushker
Tanuj Dada
Praveen Vashist
Jasbir Kaur
T Velpandian
Viney Gupta
Renu Sinha
(Ocular Pharmacology)
Viney Gupta
(Ocular Pharmacology)
Rohit Saxena
(Nishat Hussain Ahmed)
M Vanathi
Rajesh Sinha
Tushar Agarwal
Bhavna Chawla (On leave)

Additional Professors
Parijat Chandra

Associate Professors
Senjam Suraj Singh
Alok Kumar Ravi
Nabanita Halder
(Ans. Ocular Pathology)
(Ans. Ocular Pharmacology)
Noopur Gupta
Rachna Meel
Vinod Kumar
Rohan Chawla
Swati Phuljhele
Vivek Gupta
(Nishat Hussain Ahmed)
(Nishat Hussain Ahmed)
Shikha Gupta
(Community Ophthalmology)
Neiwete Lomi
Dewang Angmo
(Community Ophthalmology)
Prafulla Maharana
Shorya Vardhan Azad
Neelima
Kanil Ranjith Kumar
Arshad Ayub

HIGHLIGHTS
Dr Rajendra Prasad Centre for Ophthalmic Sciences, AIIMS, the Apex Centre for Ophthalmic Care in the country, is recognized as a premier super-speciality institute with state-of-the-art equipment and world class facilities for patient care, teaching and research. Some of the key highlights of Dr RP Centre include:

• WHO Collaborating Centre for Prevention of Blindness

• Largest Postgraduate Teaching Programme in the world with over 100 PG residents and over 50 senior residents being trained at any time
• Plays a major role in planning and policy development of eye care activities under the National Programme for Control of Blindness and Visual Impairment, Ministry of Health and Family Welfare, India. The Chief, RP Centre is Advisor to the Ministry for the programme

• Conducted 22 scientific workshops on sub-specialties of Ophthalmology which including live interactive surgical sessions and individualized wetlab sessions with hands on training

• **Retina and Uvea Services**: Apex referral centre for the management of various sight threatening vitreo-retinal disorders. Published several research papers last year including the proposed classification system for retinal capillary angiomatosis and novel intraoperative optical coherence tomography feature predicting macular hole closure. Ongoing stem cell research on degenerative retinal disorders aims to provide hope to the blind in future. The first institute in the entire Asia-Pacific region to acquire 3D heads up display technology, the NGENUITY 3D Visualization System, providing state of the art digitally assisted vitreoretinal surgeries

• **Glacoma Services**: Initiated the National Training Programme for Upgrading Glaucoma Training in the country in collaboration with National Programme for Control of Blindness. Research at the centre has found that meditation reduces stress to provide better control of intraocular pressure and can be used as an adjuvant with topical medications

• **Cornea, Cataract and Refractive Services**: Published path-breaking research papers including use of collagen cross-linking–treated donor corneas to prevent the recurrence of infection in fungal keratitis. Innovative techniques such as implantation of specialized intraocular lenses for improved visual outcomes for patients with dry AMD have been initiated. Working on genetic research in corneal dystrophies. Bioengineering on artificial cornea research is going on. Developed treatment protocol for Graft Versus Host Disease (GVHD) in eye and assisted in ICMR in preparation of Standard Treatment Workflows in Ophthalmology

• **Strabismus and Paediatric Ophthalmology**: Highly specialized surgeries namely complex strabismus procedures, orbitotomies, cosmetic oculoplasty, grafting procedures (fascia-lata), congenital abnormalities repair etc are performed. Research on newer surgical techniques in the field of ptosis, eyelid and contracted reconstruction, retinoblastoma, strabismus and neuroophthalmology is ongoing

• **Oculoplasty**: RP Centre has setup of plaque brachytherapy for intraocular tumors with good control rate. Several complex eyelid, orbital and lacrimal drainage system surgeries, sclerotherapy, orbital decompression and reconstructive procedures, intravitreal melphan, perilesional interferon therapy are performed

• **Environmental Factors and Eye Health**: ICMR multicentric collaborative study on the impact of environmental changes and ultraviolet ray exposure on ocular health was initiated at RP Centre with partnership of RIO Guwahati, IIPH Hyderabad, and National Physical Laboratory (NPL)

• Under Indo US collaboration, links established with: Jules Stein Institute, Tufts University, UT Western University of Texas, Massachusetts Eye and Ear Infirmary, Harvard Medical School, NEI, NIH, Bethesda, MD, USA, Sightlife, Seattle, USA, and Cleveland Clinic, USA

• **NPCB and VI-National Blindness Survey** including nationwide Diabetic Retinopathy Survey was completed this year in 31 districts. The first ever nation-wide survey of blindness in <50 years aged population (in last 30 years) was also completed by the centre

• For elimination of Trachomatous Trichiasis in India, the centre developed training modules and conducted training of state programme officers in partnership with MOH&FW and WHO

• **Community Ophthalmology**: Primary eye care services for poor and vulnerable communities have been extended to 28 vision centres. Completed an epidemiological study on childhood blindness in Delhi with examination of 20,000 children

• **Low Vision Services with Additional Rehabilitation Services**: Were upgraded with support of Christoffel Blinden Mission. Became the first public sector centre of India to acquire desktop magnifier with audio and video

• **Visual Rehabilitation and Training Centre** was initiated which provides low vision aids, counselling, disability certificates, mobility and orientation training, activities of daily living training, tactile stimulation and for environmental and lighting modification, etc

• **Ocular Pathology**: Molecular research being done in micro-RNA, mitochondrial mutations, cell cycle regulatory proteins, p53 andcyclins, NFp-kappa B pathways, PD-1/PD-L1 pathway, lipid metabolism, in various ocular tumours; Steven Johnson Syndrome, IOP and trabecular meshwork histopathology, and antiretinal antibodies in autoimmune retinitis

• **Ocular Pharmacology**: Practicing high sterile dispensing of injectable/topical drug formulations for RPC and other departments. Analysing bioactive compounds in surface and ground water in NCR under National Mission for Clean Ganga. Standardized Corneal Storage Media is served to 66 eye banks across 23 states of India, which has enabled more than 15,000 eye donations across the country. Newer storage media has been introduced which can preserve donor cornea for a week. Edited Pharmacology Textbook “Lippioncott’s Illustrated Reviews in Pharmacology”
- **Ocular Microbiology:** Offers investigations like culture and PCR for Acanthamoeba eye and CNS infections, chlamydia antigen detection, herpes simplex virus antigen detection; PCR assays for bacteria, fungi, viruses, etc.

- **Ocular Biochemistry:** Provides specific investigations like hormones, vitamin B12, etc. Scientific research areas include ocular tumors, glaucoma, angiogenesis associated retinal diseases and stem cell research both basic and translational. Department has been recognized with many awards

- **National Eye Bank:** Has collected over 31,000 corneas and conducted more than 20,000 corneal transplants. Certain milestones include 10,500 pledges in North India in a single day, 22 corneal transplantation in a single day and 21 modern corneal surgery (DSAEK) in a single day. NEB Utilization rates is >70% consistently over last 10 years. For the last consecutive 4 years >1,000 corneal transplantations have been performed annually

- **Hospital Administration, RP Centre:** Conducted studies on analysis of incidence of cases in eye casualty due to colors during Holi Festival Days and magnitude of problem of firecracker injury during Diwali Festival. To improve the interpersonal interaction, conducted training for security staff, housekeeping, hospital attendants and nursing officers with respect to soft skills and communication. As a part of Digital India Initiative numerous services, documentation and communication systems have been computerized

- **Collaboration with IIT-Delhi established to improve wayfinding using non-digital and digital interventions for patients visiting hospitals**

**EDUCATION**

- The centre provides state of the art training to the 110 postgraduate ophthalmology students and 49 students of BSc (Hons) Ophthalmic Technique

- 21 PhD students and several post-doctoral fellows are enrolled in the centre under various subspecialties and involved in advance research in eye care including community eye care

- The centre has established a National Ophthalmic Surgical Skills Development Centre (NOSSDC), the first of its kind with a high-end virtual reality simulator for intraocular surgical training for cataract and vitreo-retinal surgery. During the training hands-on skill transfer in all ophthalmic subspecialties is provided. Numerous trainees have benefitted immensely by experiencing complex interaction between instruments and intraocular structures in real time

- Continuing medical education programmes for practicing ophthalmologists under the auspices of WHO, ICMR and Ministry of Health are conducted regularly at the institute. Two District Ophthalmic Surgeons and other 9 candidates were trained for short/long term training under various ophthalmic sub-specialties at Dr RP Centre

- Under the National Blindness Survey, capacity development for various partner institutes was done for conducting blindness surveys as per standard, internationally accepted RAAB methodology at local level and for delivery of primary eye care services

- The centre trained 230 volunteers in primary eye care in urban slum clusters of Delhi

- The faculty of RP Centre, AIIMS were instrumental in teaching and training of ophthalmology postgraduate students from all over the country during the teaching programmes of All India Ophthalmological Society and Delhi Ophthalmic Society

- The Medical Superintendent and the Nursing Superintendent jointly run an In-service Education Programme. The educational activities have been conducted by the Nursing In-service Education Department include Continuous Nursing Education (CNE) on Computerization, Standard Precautions and Practices for housekeeping, sanitation and pharmacy staff, Hand Hygiene Practices, OT Etiquettes and Orientation Programmes for newly joined Nursing staff, Accreditation and Quality of care for patient safety, Sensitization of Doctors, Nurses, Housekeeping, Sanitation and Pharmacy staff in Bio Medical Waste Management, Importance of Communication and Stress Management in nursing practice, Training of nurses in CPR and BLS on regular basis at Convergence Block, Ongoing In Service Education and Training of Nursing Officers on Deceased Organ and tissue by ORBO at CMET, International Nurses Week Celebration was conducted during 7 to 18 May with theme of “A Voice to Lead—Health is A Human Right,” “Hand Hygiene Awareness” for the patient and relatives in wards and OPD etc

**CMEs/Workshops/Symposia/National and International Conferences**

1. Workshop on “Writing a Research Paper”, CMET, 5-6 April 2018, AIIMS, New Delhi
2. Strabismus Workshop, Dr RP Centre for Ophthalmic Sciences, 22 July 2018, AIIMS, New Delhi
4. RPC-Sight Life DSAEK Course, Dr RP Centre for Ophthalmic Sciences, July-August 2018, AIIMS, New Delhi
5. Indian Society of Cornea and Kerato Refractive Surgeons (ISCKRS), 3rd Annual Meet, August 2018, New Delhi
6. Research Methodology Workshop for Biomedical Research, 6-8 August 2018, ICMR, New Delhi
7. Glaucoma Workshop, Dr RP Centre for Ophthalmic Sciences, 19 August 2018, AIIMS, New Delhi
8. Retina Workshop, Dr RP Centre for Ophthalmic Sciences, 23 September 2018, AIIMS, New Delhi
9. 33rd National Eye Donation Fortnight Celebration, Dr RP Centre for Ophthalmic Sciences, AIIMS, September 2018, AIIMS, New Delhi
10. RPC ACOIN Orientation Training Programme on Research Methodology for the Ophthalmology, Community Ophthalmology, Dr RP Centre for Ophthalmic Sciences, 26-27 October 2018, AIIMS, New Delhi
11. Cornea Workshop, Dr RP Centre for Ophthalmic Sciences, October 2018, AIIMS, New Delhi
12. NPCB&VI Workshop for SPOs for Elimination of Trachoma and Sequelae by 2020, Community Ophthalmology, Dr RP Centre for Ophthalmic Sciences, 22 November 2018, AIIMS, New Delhi
13. 1st National Workshop on Strengthening Low Vision and Rehabilitation (LVR) Services, Community Ophthalmology, Dr RP Centre for Ophthalmic Sciences, 29-30 November 2018, AIIMS, New Delhi
15. 3rd National hands-on Workshop on Advanced Bioanalytical Techniques—from Method Development to Data Interpretation, Mainly focusing on Metabolomics, Lipidomics and Proteomics, 17-19 December 2018, AIIMS, New Delhi
16. Phacoemulsification and Refractive Surgery Workshop, Dr RP Centre for Ophthalmic Sciences, January 2019, AIIMS, New Delhi
17. Indian Society of Cornea and Keratorefractive Surgeons (ISCKRS), Annual meeting of Deccan Ophthalmic Association and ISCKRS West Zone Meet, January 2019, Goa
18. Clinical Grand Round (CGR): Interdisciplinary approaches in Ophthalmic Care: Vistas from Cornea, Cataract, Refractive Surgery and Ocular Oncology Services, 15 January 2019, New Delhi
19. Phacoemulsification and Refractive Surgery Update, Dr RP Centre for Ophthalmic Sciences, 20 January 2019, AIIMS, New Delhi
20. 2nd National Workshop on Strengthening Low Vision and Rehabilitation (LVR) Services at Community Ophthalmology, Dr RP Centre for Ophthalmic Sciences, 29 January 2019, AIIMS, New Delhi
21. 52nd Annual Day Congress, 9 March 2019, New Delhi
22. Patient Education Programme on World Glaucoma Week, 11 and 15 March 2019, New Delhi

Lectures delivered
Atul Kumar
2. Course: Optimizing Ophthalmic Residency Training in India—Running an Ideal MD/MS Residency Programme, The Dr RP Centre Way, 14th VISION 2020 India, 9 June 2018, Guwahati
3. Outer Retinal Tubules, Retina Imaging Congress, 29 and 30 June 2018, Trivandrum
4. Wide field Imaging in Retinal Practice, Retina Imaging Congress, 29 and 30 June 2018, Trivandrum
6. Guest Faculty, 42nd Annual Conference of MP State Ophthalmic Society, 6 and 7 August 2018, Indore
7. Guest Faculty: Live Video and Paediatric Ophthalmology and Strabismus Symposium, Annual Conference of North Zone Ophthalmic Society in association with Chandigarh Ophthalmic Society, 6-9 September 2018, Chandigarh
8. Guest Speaker, Kantivelugu Training Programme for newly recruited ophthalmologists from Telangana, 20 September 2018, Hyderabad
12. Guest Speaker, 18th Annual Meeting of Uveitis Society of India—COTS CON—TB Consensus Meeting, 16 November 2018, Chandigarh
13. Restoring 3-D Vision, Haryana Ophthalmic Society, 24 November 2018, Gurgaon
17. Guest Faculty, iFocus 2019, 23 January 2019, Hyderabad
18. IC 50: Macular Pathologies Simplified, IC 264: DME Management—Unanswered Question, 77th AIOS Conference, 14-17 February 2019, Indore
19. Treating Persistent DME after Successful Vitrectomy? 77th AIOS Conference, 14-17 February 2019, Indore
20. Massive Sub Macular Hemorrhage, Modified Management, 77th AIOS Conference, 14-17 February 2019, Indore

Pradeep Sharma

1. Plication vs Resection, DOS—Annual Conference-2018, 7-8 April 2018, New Delhi
3. PG Teaching: Strabismus Simplified in Dr Kariadi Hospital, INAPOSS-2018, 20-21 April 2018, Semarang, Indonesia
10. Amblyopia Management in Paediatric Cataract, OS-SPOSI Mid Term 2018, 19-20 May 2018, Allahabad, UP
12. DRS and Nystagmus, Strabismus Workshop, 22 July 2018, Dr RP Centre, New Delhi
13. Strabismus Surgery Stop before Your Chop, 4th Central Zone, ARC-AIOS, 9-11 August 2018, KGMU, Lucknow
14. Role of Imaging in Strabismus, 4th Central Zone, ARC-AIOS, 9-11 August 2018, KGMU, Lucknow
15. Management of Nystagmus, 32nd Annual Conference North Zone Ophthalmological Society, 8-9 September 2018, NZOS, Chandigarh
16. Management of DRS, 32nd Annual Conference North Zone Ophthalmological Society, 8-9 September 2018, NZOS, Chandigarh
17. New muscles transposition procedures, Strabismus-Concerns and Changing Paradigms, 23 September 2018, AIIMS, Rishikesh
20. Surgical Techniques in Strabismus, Paediatric Eye Symposium, 5-6 October 2018, TIO, Kathmandu, Nepal
21. Nystagmus Simplified, Paediatric Eye Symposium, 5-6 October 2018, TIO, Kathmandu, Nepal
25. The Pursuit of Stereopsis, AIIMS Optometry Explorer, 19 January 2019, AIIMS, New Delhi
26. IS Roy Oration, 12th Annual Congress, KAO 2019, 13-14 January 2019, Kolkata

Ramanjit Sihota

1. Oration: Preventing glaucoma blindness, Bangalore Ophthalmic Society, 24 June 2018, Bangalore
3. Bleb revision, Glaucoma Society of India, 14-16 September 2018, Trivandrum
4. Oration—Preventing glaucoma blindness, Andhra Pradesh Ophthalmology Society, 5-7 October 2018, Nandyala, Andhra Pradesh
5. Fight the fever—How to maximize your performance in the examination, iFocus, 20-27 January 2019, Hyderabad
6. Getting Care to those who need it, Design and implementation of a national wide glaucoma care skill upgradation programme, World Glaucoma Association, 27-30 March 2019, Melbourne, Australia

Gita Satpathy: 1 (For details see 9.20 Microbiology)

JS Titiyal
1. Advancement phaco in cutting edge technology, Delhi Ophthalmological Society, 12-14 April 2019, New Delhi
2. Current trends in cataract and refractive surgery, All India Ophthalmological Society Conference, February 2019, Indore, MP
4. Reconstructive surgery session, Indian Society of Cornea and Keratorefractive Surgeons (ISCKRS), August 2018, New Delhi
5. Phacoemulsification with preloaded ultrasert IOL, 69th Annual Conference of Delhi Ophthalmic Society (DOS), April 2019, New Delhi
7. DSAEK surgery, Keracon 2018, 30 November-2 December, New Delhi
8. SMILE surgery, Phacoemulsification and extended range vision Symphony IOL, Indian Society of Cornea and Keratorefractive Surgeons, August 2018, New Delhi
9. Phacoemulsification in difficult situations, 77th AIOS Conference, 14-17 February 2019, Indore

Radhika Tandon
1. Lo and behold a wobbly lens complex refractive cases revisited, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 7-8 April 2018, New Delhi
2. Keratoplasty recent advances corneal dystrophy what is new, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 7-8 April 2018, New Delhi
4. The applications of stem cells for ye disorders the journey and the destination, Symposium on Exploring the Wonders of Stem Cell Therapy, 2 May 2018, New Delhi
5. Dry eye: What’s new and everything we need to know, DOS Academic CME, 12 May 2018, New Delhi
6. Update on newer technologies in Keratoplasty, 6th Asia Cornea Society Biennial Scientific Meeting 2018 (ACS 2018), 16-19 May 2018, Qingdao, China
7. Evolution of eye banking and its impact on corneal surgery, 6th Asia Cornea Society Biennial Scientific Meeting 2018 (ACS 2018), 16-19 May 2018, Qingdao, China
8. Moderator, Symposium 9, 6th Asia Cornea Society Biennial Scientific Meeting 2018 (ACS 2018), 16-19 May 2018, Qingdao, China
9. AEBA Breakfast Symposium: Facilitator, 6th Asia Cornea Society Biennial Scientific Meeting 2018 (ACS 2018), 16-19 May 2018, Qingdao, China
10. Guest Faculty Session: Cornea 5—Convenor, Eye Advance 2018 XIIth International Congress on Advances in Ophthalmology, 1-3 June 2018, Mumbai
14. Keynote Address—Corneal Blindness, The follow up meeting of Corneal Blindness “Backlog Free” under NPCB and VI, 7 June 2018, Chandigarh


23. Stem cell transplantation current concepts and techniques, BOS Summit 2018 (Bangalore Ophthalmic Society), 23-24 June 2018, Bangalore


26. Round Robin: CDS, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune

27. Breakout Session I: Medical Standards, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune

28. Breakout Session II: Table 3, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune

29. Wrap up, Where to from here—Stakeholders: Panelist, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune

30. Clinical Session 1: Ocular Surface and Corneal Diseases: Keynote Address: Modern Technologies in Corneal Surgeries, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune

31. Combined Session 1: Eye Banking Cornea Achievements in India and International Developments: Panelist, Co-Chairman, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune

32. Introduction to the session, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune

33. Eye Bank Session 2: NPCB and Vision 2020: Presenter: Eye Banking models in India, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune

34. Clinical Session 8: Challenging Situations: Presenter: 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune

35. Optimizing results in Paediatric Keratoplasty Combined Session 4: Aap Ki Adalat: Judge, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune

36. Disappearing in the desert sands, rescue efforts redefined, Delhi Film Festival 2018, 20 October 2018, New Delhi

37. Guest faculty, Workshop on Physical and Mental Disabilities in the Light of Global Best Practices in Care, Rehabilitation and Research, 23 October 2018, New Delhi

38. Genetics, Keratoconus CME on the occasion of World Keratoconus Day, 1 November 2018, Noida

39. Surgical management, Keratoconus CME on the occasion of World Keratoconus Day, 1 November 2018, Noida

40. Eye donation promotion session, “Healthy Lifestyle and Well being”, A 21st Century Paradigm, 17 and 18 November 2018, New Delhi
41. Launch of MIRACLE DREAM programme on cornea donation in India, “Healthy Lifestyle and Well being” A 21st Century Paradigm, 17 and 18 November 2018, New Delhi
42. Live Surgery Transmission from Guru Nanak Eye Centre: Winter Conference of Delhi Ophthalmological Society (DOS), 17 and 18 November 2018, New Delhi
43. DSEK: Panel Discussion (17 November 2018 at 10:00-10:30), Winter Conference of Delhi Ophthalmological Society (DOS), 17 and 18 November 2018, New Delhi
44. Cataract Surgery and Secondary IOL Implantation: Surgeon (17 November 2018 at 10:30-11:30), Winter Conference of Delhi Ophthalmological Society (DOS), 17 and 18 November 2018, New Delhi
45. SSTC: Convenors, Winter Conference of Delhi Ophthalmological Society (DOS), 17 and 18 November 2018, New Delhi
47. SSTC: Convenors (18 November 2018), Winter Conference of Delhi Ophthalmological Society (DOS), 17 and 18 November 2018, New Delhi
48. Recent advances in corneal surgery, Ophthalmic Rainbow “HOS Annual Conference 2018” hosted by Gurugram Ophthalmological Society, 24 and 25 November 2018, Gurugram
50. Ocular surface update on recent developments, KERACON 2018—6th National Meeting of Cornea Society of India, 1 and 2 December 2018, New Delhi
51. New technologies in corneal surgery, Talk for the residents and faculty of PGIMER and Dr RML Hospital, 4 December 2018, New Delhi
52. Understand and define various types of Eye injuries due to prolonged occupational exposure, Train the Trainers Programme on Occupational and Environmental Health for Medical Officers, 4 December 2018, New Delhi
53. Eye Banking in India, Keratoplasty Conference cum Workshop “The Ray of Light”, 15 December 2018, Lucknow
55. Way forward to research protocol, A National level educational conference—The AIIMS Optometry Explorer, 19-20 January 2019, New Delhi
56. Eye banking and corneal preservation techniques, iFocus 2019, 21 January 2019, Hyderabad
57. Co-Chaired and Speaker: Current concepts and clinical management of low vision and blindness, 2nd National Workshop: Strengthening Low Vision and Rehabilitation Services, 29 January 2019, New Delhi
59. How to read corneal Topography and case-based discussion, 11th DOS Teaching Programme, 2-3 February 2019, New Delhi
62. Evaluation of Barrett’s Universal II Formula in Indian Eyes—Co-Author, 77th AIOS Conference, 13-16 February 2019, Indore
63. IC578: OSD—Confusions, Concerns and Changing Paradigms—Chief Instructor and Co-Instructor, 77th AIOS Conference, 13-16 February 2019, Indore
64. Hyperosmolarity and Osmoprotection—Myth or Reality? Speaker, 77th AIOS Conference, 13-16 February 2019, Indore

SK Khokhar
1. SMILE-Everything you wanted to know, Academic CME “VISICON 2018”—Advances in Cornea and Refractive Surgery: An Update, 12 May 2018, New Delhi
2. Invited as Faculty, 4th Midterm Conference of Strabismus and Paediatric Ophthalmological Society of India (SPOSI) and 1st Annual Conference of Allahabad Ophthalmological Society, 19-20 May 2018, Allahabad, UP
3. Invited as Speaker, 14th SAARC Academy of Ophthalmology Conference, 21-23 June 2018, Kathmandu, Nepal
4. Paediatric subluxated lenses and management, XIIth International Congress on Advances in Ophthalmology “Eye advance 2018”, 1-3 June 2018, Mumbai
5. Paediatric Cataract, Annual Conference of Bombay Ophthalmologists Association BOA FOCUS-2018, 24-26 August 2018, Mumbai
6. Refractive outcomes of cataract surgery in operated primary congenital glaucoma, World Society of Paediatric Ophthalmology and Strabismus, 21 September 2018, Vienna, Austria
7. Comparative evaluation of intraoperative wave front aberrometry versus conventional IOL power calculation in pediatric eyes, 122nd meeting of the American Academy of Ophthalmology (AAO), 26-30 October 2018, Chicago, USA
8. Surgical approach to persistent fetal vasculature, 122nd meeting of the American Academy of Ophthalmology (AAO), 26-30 October 2018, Chicago, USA
9. Refractive Surgery, DOSCON18—Delhi, 17-18 November 2018, New Delhi
10. Keynote address: ICL surgery simplified, DOSCON18—Delhi, 17-18 November 2018, New Delhi
11. Guest Faculty, “Binodulous 18 Vadodara” Annual Conference of Strabismus and Paediatric Ophthalmological Society of India (SPOSI), 1-2 December 2018, Vadodara, Gujarat
12. Decision making in selection of refractive surgery, 11th DOS Teaching Programme, 2-3 February 2019, New Delhi
13. Paediatric Cataract, SPOSI Symposium, 77th AIOS Conference, 14-17 February 2019, Indore
14. IC on SMILE, SPOSI Symposium, 77th AIOS Conference, 14-17 February 2019, Indore
16. Guest Speaker, Jaipur Ophthalmological Society (JOS), 24 March, Jaipur

Shakti Kumar Gupta: 5 (For details see 9.17 Hospital Administration)

Dilip R Shende: 6 (For details see 9.1 Anaesthesiology)

MS Bajaj
2. Step by Step Approach to Ptosis, 3rd Island Ophthalmological Society, 20-23 December 2018, Port Blair

Rajpal Vohra
1. Anti-VEGF in ROP Retinal Lasers, Retina Workshop, 23 September 2018, New Delhi
2. Poster presentation, 122nd AAO Conference, 27-30 October 2018, Chicago
3. Vascular retina diseases, lecture, 5 January 2019, New Delhi
4. Ocular trauma meeting, 77th AIOS Conference, 14-17 February 2019, Indore

Seema Sen
1. Pathology of Retinoblastoma, Workshop in Paediatric Oncology, 17 March 2018, New Delhi
2. Pathology of intraocular tumours, OPAI Conference, 28-30 September 2018, Jaipur
5. Pathology of Eyelid Tumors, Oculoplasty and oncology workshop, 2 December 2018, New Delhi

Sanjay Sharma: 3 (For details see 9.36 Radiodiagnosis)

Seema Kashyap
1. Pathology of Retinoblastoma, Workshop in Paediatric Oncology, 17 March 2018, New Delhi
2. Pathology of intraocular tumours, OPAI Conference, 28-30 September 2018, Jaipur
Namrata Sharma

1. Managing Preexisting and Postoperative Corneal and Ocular Surface Disorders During Phacoemulsification: Instruction Course, The Annual Meeting of ASCRS 2018, 13-17 April 2018, Washington DC, USA
11. Convened the session on “CORNEA CORNER”, The Indian Intraocular Implant and Refractive Surgery Convention 2018 organized by Intraocular Implant and Refractive Society (IIRSI), 7-8 July 2018, Chennai
12. Co-Convened the session on “live surgical session: Telecast from Dr Agarwal’s eye hospital”, The Indian Intraocular Implant and Refractive Surgery Convention 2018 organized by Intraocular Implant and Refractive Society (IIRSI), 7-8 July 2018, Chennai
13. Severe Fungal Keratitis with Very deep and large Infiltrate with Hypopyon-Intrastromal Anti-fungal therapy, The Indian Intraocular Implant and Refractive Surgery Convention 2018 organized by Intraocular Implant and Refractive Society (IIRSI), 7-8 July 2018, Chennai
14. DSAEK and DMEK problems and solutions, The Indian Intraocular Implant and Refractive Surgery Convention 2018 organized by Intraocular Implant and Refractive Society (IIRSI), 7-8 July 2018, Chennai
15. Vice captain of the confident capsules-Appasamy team in the session “Ophthalmic Premier League- 20/20”, The Indian Intraocular Implant and Refractive Surgery Convention 2018 organized by Intraocular Implant and Refractive Society (IIRSI), 7-8 July 2018, Chennai


30. Pythium Keratitis: Devastating and disastrous, The Annual Conference of ISCKRS Meet 2018 organized by Indian Society of Cornea and Keratorefractive Surgeons, 4-5 August 2018, New Delhi

31. I-OCT guided DALK Convened the “Live Surgeries” session, The Annual Conference of ISCKRS Meet 2018 organized by Indian Society of Cornea and Keratorefractive Surgeons, 4-5 August 2018, New Delhi

32. Chaired the Symposium “Keratoplasty Unlocked”, The 66th Annual Conference of the Tamil Nadu Ophthalmic Association, “Pudhu Vue’18” organized by Mahatma Gandhi Medical College and Research Institute, 10 and 11 August 2018, Puducherry

33. Opportunities and Challenges for Women in Ophthalmology: A Round Table, The 66th Annual Conference of the Tamil Nadu Ophthalmic Association, “Pudhu Vue’18” organized by Mahatma Gandhi Medical College and Research Institute, 10 and 11 August 2018, Puducherry

34. Corneal Ulcer, The 12th Kalpavriksha 2018—A National CME Programme for the post graduates organized by Dr Agarwal’s Eye Hospital and Eye Research Centre, 16-18 August 2018, Chennai

35. Dry Eye: TFOS DEWS II recommendations, The 12th Kalpavriksha 2018—A National CME Programme for the post graduates organized by Dr Agarwal’s Eye Hospital and Eye Research Centre, 16-18 August 2018, Chennai

36. Corneal Ectasia, The 12th Kalpavriksha 2018—A National CME Programme for the post graduates organized by Dr Agarwal’s Eye Hospital and Eye Research Centre, 16-18 August 2018, Chennai

37. Penetrating Keratoplasty, The 12th Kalpavriksha 2018—A National CME Programme for the post graduates organized by Dr Agarwal’s Eye Hospital and Eye Research Centre, 16-18 August 2018, Chennai


43. Phacoemulsification in Corneal Haze Endothelial keratoplasty in difficult situation, The XIXth Russian National Congress 2018 organized by Modern Technologies in Cataract and Refractive Surgery, 18-20 October 2018, Moscow, Russia

44. Attended as one of the panelists at Subspecialty Day and “When Medical Therapy Fails, What Next?” which was attended by I am packed hall, The Annual Meeting of American Academy of Ophthalmology, 27-30 October 2018, Chicago, USA

45. Comparative evaluation of Intrastromal Injections of Voriconazole, Amphotericin B, and Natamycin—This was awarded the best paper of the cornea session, The Annual Meeting of American Academy of Ophthalmology, 27-30 October 2018, Chicago, USA


50. Attended as one of the panellists at the session “Refractive surgery Practice protocol”, The Annual Conference of Kerala Society of Ophthalmic Surgeons 2018 organized by the Kerala Society of Ophthalmic Surgeons, 23 and 24 November 2018, Kannur, Kerala

51. Attended as one of the judges at “The Great Debate”, The Annual Conference of Kerala Society of Ophthalmic Surgeons 2018 organized by the Kerala Society of Ophthalmic Surgeons, 23 and 24 November 2018, Kannur, Kerala

52. Cataract surgery with Ant segment reconstruction—surgeons dilemma, The Annual Conference of Kerala Society of Ophthalmic Surgeons 2018 organized by the Kerala Society of Ophthalmic Surgeons, 23 and 24 November 2018, Kannur, Kerala

53. Attended as one of the panelists at the session Video Assisted Skill Transfer: Cornea ‘Basics’, The Annual Conference of Kerala Society of Ophthalmic Surgeons 2018 organized by the Kerala Society of Ophthalmic Surgeons, 23 and 24 November 2018, Kannur, Kerala

54. Was one of the moderators at the “LIVE SURGERY” session, The SROC-KOSCON 2018 organized by the Karnataka Ophthalmic Society, 7 December 2018, Mangalore, Karnataka

55. Refining LASIK surgery, The SROC-KOSCON 2018 organized by the Karnataka Ophthalmic Society, 7 December 2018, Mangalore, Karnataka

56. Keynote lecture in the session “KERATITIS Problem Based Learning (PBL)”, The SROC-KOSCON 2018 organized by the Karnataka Ophthalmic Society, 7 December 2018, Mangalore, Karnataka

57. Lamellar keratoplasty revisited, The 34th Annual Conference of the Odisha State Ophthalmological Society (OSOCN 2018) organized by Odisha State Ophthalmological Society, 8 and 9 December 2018, Puri

58. Women in leadership role, The 34th Annual Conference of the Odisha State Ophthalmological Society (OSOCN 2018) organized by Odisha State Ophthalmological Society, 8 and 9 December 2018, Puri

59. Management of fungal keratitis, The 34th Annual Conference of the Odisha State Ophthalmological Society (OSOCN 2018) organized by Odisha State Ophthalmological Society, 8 and 9 December 2018, Puri


63. My Experience with Phototherapeutic Keratectomy, The Refractive Surgery Meeting organized by the Gurugram Ophthalmological Society and Haryana Ophthalmological Society, 16 December 2018, Gurugram, Haryana

64. Persistent corneal edema after Phacoemulsification; How to manage, The CME Scientific Programme 2019 organized by the South Gujarat Academy of Ophthalmology, 6 January 2019, Surat, Gujarat

65. Persistent Post Phacoemulsification Corneal Oedema: How to deal, The MID Term IIRSI 2019 organized by the Intra Ocular Implant and Refractive Society of India (IIRSI), 19 January 2019, Amritsar

66. Role of Intracameral Moxifloxacin in Prevention of Endophthalmitis, The MID Term IIRSI 2019 organized by the Intra Ocular Implant and Refractive Society of India (IIRSI), 19 January 2019, Amritsar

67. Decision making in refractive surgery, The Zone CME 2019 organized by the All Gujarat Ophthalmological Society, 27 January 2019, Rajkot, Gujarat

68. Keratoconus: How to deal and when to refer, The Zone CME 2019 organized by the All Gujarat Ophthalmological Society, 27 January 2019, Rajkot, Gujarat


70. Keratoplasty and Component Corneal Surgery—Technique, Results and Complications, 77th AIOS Conference, 14-17 February 2019, Indore

71. Microbial Keratitis: How has new evidence changed the management, 77th AIOS Conference, 14-17 February 2019, Indore

72. Phacoemulsification in corneal haze Queries and Controversies, 77th AIOS Conference, 14-17 February 2019, Indore

73. Exciting awards for the best three presentations, 77th AIOS Conference, 14-17 February 2019, Indore

74. Corneal Infections—Principal of Medical and Surgical Management Graft Infiltrate: How does our management differ, 77th AIOS Conference, 14-17 February 2019, Indore
Tanuj Dada
1. Alternative and complimentary therapy in Glaucoma, World Glaucoma Congress, 27-30 March 2019, Melbourne, Australia
2. Trabeculectomy is still the Gold Standard, World Glaucoma Congress, 27-30 March 2019, Melbourne, Australia
5. Innovations in Glaucoma Surgery, International Congress Glaucoma Surgery, 6-8 September 2018, Montreal, Canada
7. Challenging Situations in Glaucoma Surgery, All India Ophthalmic Society Meeting, February 2019, Indore

T Velpandian
1. Educational course on basics of ocular pharmacology and drug delivery to eye, 25th Annual meeting of IERG ARVO India Chapter organized by CCMB 7 LV Prasad Eye Research Centre, 27-29 July 2018, Hyderabad
2. Vision Science to Patient Care—A Translational Research, Meeting organized by Arvind Medical Research Foundation, 25 August 2018, Madurai

Praveen Vashist
1. Role of NPCB in prevention of blindness due to Glaucoma in ACOIN Session, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 8 April 2018, New Delhi
3. National Health Care Protection Scheme impact on eye health in the session on Universal Eye Health, 14th VISION 2020 India, 9-10 June 2018, Guwahati
4. Prevalence of blindness and visual impairment in India in the session on Advocacy for Research in India, 14th VISION 2020 India, 9-10 June 2018, Guwahati
5. Community Based Inclusive Development (CBID) experience sharing in the session on towards a disability inclusive world, 14th VISION 2020 India, 9-10 June 2018, Guwahati
7. Guest lecture for awareness generation on various primary eye care health issues, Dte. GHS and MoH&FW, 19 July 2018, New Delhi
8. Delivered IPS Permar Oration lecture on current status of blindness in India, ACOIN Haryana State Chapter 2018, 28 July 2018, Gurgaon, Haryana
11. Current Status of Corneal Blindness in India, 10th National Conference on cornea and Eye Banking, 8 September 2018, Pune
13. Assessing the needs for rehabilitate service among functional low vision and absolute blind persons in India: Results from the population-based study, 25th ISGEO Meeting, 11-12 September 2018, Hyderabad
14. Study design, Orientation Training Programme on Research Methodology, 26-27 October 2018, New Delhi
17. Recent advances in community Ophthalmology along with current status of National Programme of Blindness in India, Meeting at Vision Eye Centre, 3 November 2018, New Delhi
18. Integration of community eye health with primary eye health care, Vision 2020 Right to Sight India Training Programme, 16 November 2018, Delhi
19. Epidemiology of diabetic retinopathy and recent NPCB survey on diabetic retinopathy, DOS Winter Conference in the ACOIN Session, 18 November 2018, New Delhi
22. National Action Plan Low Vision and Rehabilitation: Recommendation for tertiary care hospitals, 1st National workshop on low vision and rehabilitation services, 29 and 30 November 2018, New Delhi
23. Recent Initiative under NPCB, Second annual meeting, 8-9 December 2018, AIIMS, Jodhpur
24. Revised certification disability criteria, Second annual meeting, 8-9 December 2018, AIIMS, Jodhpur
27. Judged and Convenor for the free paper presentation in Community/Social Ophthalmology, 77th AIOS Conference, 14-17 February 2019, Indore
28. RAAB survey in SAARC Academy of Ophthalmology Session, 77th AIOS Conference, 14-17 February 2019, Indore
30. Blindness Survey in India—An NPCB Initiative, 77th AIOS Conference, 14-17 February 2019, Indore
31. Moderator for the Vision 2020 Session Delivered talk on New Rapid Assessment of Avoidable Blindness in India, 77th AIOS Conference, 14-17 February 2019, Indore
32. Community ophthalmology initiatives at RP Centre, 16 March 2019, Amity University, Gurgaon
33. Participated as a Guest of honor and delivered a talk on “Role of Optometrists in involvement in health system in India”, Conference organized by Ansal University, 31 March 2019, Gurgaon

Renu Sinha: 13 (For details see 9.1 Anaesthesiology)

M Vanathi

4. The path forward in cataract and refractive surgery—Session Co-convenor, IIRSI 2018 Chennai, 7-8 July 2018, Chennai
5. Latest with iOCT aided corneal lamellar surgeries, IIRSI 2018 Chennai, 7-8 July 2018, Chennai
6. Advanced Concepts—Refining TORICs with ORA, IIRSI 2018 Chennai, 7-8 July 2018, Chennai
8. LK post SLET, OSKON 2018 (3rd Ocular Surface and Keratoprosthesis Conference), 27-29 July 2018, Chennai
9. Corneal Biomechanics in Post LASIK Corneas—Refractive Learning the Tricks, ISCKRS 2018—Evolving Trends (Annual meeting of Annual Conference of Indian Society of Cornea and Kerato-Refractive Surgeons, 4-5 August 2018, New Delhi
10. Keratoplasty Unlocked, Pudhuvue 2018—Annual Conference of Tamil Nadu Ophthalmic Society TNOA, 10-12 August 2018, Puducherry
11. Contact Lens Spectrum Instruction Course—Co-instructor, Pudhuvue 2018—Annual Conference of Tamil Nadu Ophthalmic Society TNOA, 10-12 August 2018, Puducherry
12. Scleral Contact Lens, Pudhuvue 2018—Annual Conference of Tamil Nadu Ophthalmic Society TNOA, 10-12 August 2018, Puducherry
13. Fathoming pediatric keratoconus—Co-instructor, Pudhuvue 2018—Annual Conference of Tamil Nadu Ophthalmic Society TNOA, 10-12 August 2018, Puducherry
14. Keratoplasty in Paediatric Keratoconus, Pudhuvue 2018—Annual Conference of Tamil Nadu Ophthalmic Society TNOA, 10-12 August 2018, Puducherry
16. Paediatric Corneal Blindness—President Medal Oration, ACOIN 2018, 1-2 September 2018, Digha, West Bengal
19. Acute Graft Rejection, RPC Cornea Workshop, 21 October 2018, New Delhi
27. Keracon Film Challenge—Intrastromal Corneal Cyst, Keracon 2018, 1-2 December 2018, New Delhi
28. Approach to Infectious Keratitis, PG Teaching Programme, 23 December 2018, Jalna
29. AIOS—Cipla PG Teaching Programme EyeShala 2019: Approach to infectious keratitis, 77th AIOS Conference, 14-17 February 2019, Indore
30. AIOS ARC—ICO Teachers in Ophthalmology Apex Conclave—Session 1: Bedside Teaching—A Must, 77th AIOS Conference, 14-17 February 2019, Indore
31. Clinical Rounds—Cornea-Convenor, 77th AIOS Conference, 14-17 February 2019, Indore
32. Celebrating 200 years of Indian Ophthalmology-(Cornea)—Co-chair, 77th AIOS Conference, 14-17 February 2019, Indore
33. OSD—Confusions, Concerns and Changing Paradigms, 77th AIOS Conference, 14-17 February 2019, Indore
34. VAST on Corneal Theatre Masterclass—Power Capsule on Pearls and Pitfalls, 77th AIOS Conference, 14-17 February 2019, Indore
35. Mistakes in diagnosis and management, 77th AIOS Conference, 14-17 February 2019, Indore
36. Cornea Society of India (CSI) Debates and Controversies in Cornea: Medical Vs Surgical Management in Infectious Keratitis, 77th AIOS Conference, 14-17 February 2019, Indore

37. Dioptric distress: Biometry Solution for All Situations—Targeting Eagle’s Eye Vision Refining TORICs, 77th AIOS Conference, 14-17 February 2019, Indore

38. Mastering MULTIFOCALS: Maximizing Manipulations—Case Based Approach TORICS with ORA, 77th AIOS Conference, 14-17 February 2019, Indore

39. Fungal Keratitis in India: Keynote Address, Japan Cornea Conference 2019 and Cornea Seminar, 9 February 2019, Kyoto, Japan

40. Member—Organizing committee, RPC Foundation Day, 9 March 2019, New Delhi

Parijat Chandra

1. When to Operate in Advancing ROP, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, Delhi

2. ROP Surgery, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, Delhi

3. When to Operate in Advancing ROP, 3rd iROP Society Meeting, ROP in 2018, 21-22 July 2018, Raipur

4. 2nd Hyderabad Retina Society Meeting, 5 August 2018, Hyderabad

5. ROP: Screening and Management, ARC AIOS PG Teaching Course, 31 August-2 September 2018, Delhi

6. Evolving Role of Anti-VEGF drugs in ROP, Annual DOS Conference, 17-18 November 2018, Delhi

7. Retinal lasers vs Injections for ROP treatment, 16th Annual Conference of Jharkhand Ophthalmic Society, 7-9 December 2018, Ranchi

8. Anti-VEGF drugs in ROP, 16th Annual Conference of Jharkhand Ophthalmic Society, 7-9 December 2018, Ranchi

9. Management of Advanced ROP, CME Indian Academy of Paediatrics, 23 March 2019, Patna

10. Future of ROP Management in India, CME Indian Academy of Paediatrics, 23 March 2019, Patna

Senjam Suraj Singh

1. Recommendation of Eye health for IPHS in the meeting, IPHS Sub Committee Meeting, 4 August 2018, AIIMS, Bhopal

2. Assessing the needs for rehabilitative service among functional low vision and absolute blind persons in India: Results from the population-based study, 25th ISGEO Meeting, 11-12 September 2018, Hyderabad

3. Physical and Mental Disabilities in the Light of Global Best Practices in Care, Rehabilitation and Research, 23 October 2018, New Delhi

4. Low vision certification criteria according to Government of India, Inauguration of Low Vision, 1 November 2018, Gurgaon

5. Potential of e-Referral Networks on eye care, School of Public Health PGIMER with support from MCI India, 11 January 2019, Chandigarh

6. Overview of Community Ophthalmology Department, London School of Hygiene and Tropical Medicine (LSHTM), 5 March 2019, London

Nabanita Halder

1. Comparison of Ocular Pharmacokinetics of Selected Antiangiogenic Agents after Intravitreal (IVT) Injection in Rabbits using ESI-LC-MS/MS, 25th Annual Meeting of IERG ARVO India Chapter Annual National, 27-29 July 2018, Hyderabad

2. Precorneal tear film pharmacokinetics of extemporaneously compounded piperacillin and tazobactam in rabbits, Annual Conference of Association of Physiologists and Pharmacologists (APPICON), 27 November-1 December 2018, Manipal

Noopur Gupta

1. WHO-SEARO and NPCB workshop on Achieving Universal Eye Health Key recommendations, 14th VISION 2020 India, 9-10 June 2018, Guwahati

2. Corneal Blindness in India, 14th VISION 2020 India, 9-10 June 2018, Guwahati

3. Trachoma status in India: Road map to elimination, ISCKRS Meet 2018, 6 August 2018, New Delhi

4. Corneal Donation, Organ Retrieval Banking Organization, 10 September 2018, AIIMS, New Delhi

5. Burden of Corneal Blindness and need for donor cornea in India, 10th Annual Meeting of Eye Bank Association of India, 7-9 September 2018, Pune
6. Corneal Donation, Organ Retrieval Banking Organization, 10 September 2018, AIIMS, New Delhi
7. Approach to dry eye, RPC Cornea Workshop, 21 October 2018, New Delhi
9. Phenotype, causes and correlates of trichiasis in a tertiary eye care hospital, 4th Global Scientific Meeting on Trachoma, 27-29 November 2018, Geneva, Switzerland
10. Challenging Case Scenarios: Suprahard cataract, RPC Phacoemulsification and Refractive Surgery Workshop, 10 January 2019, New Delhi
12. Are we on the road to trachoma elimination in India? Overview on current status of blinding trachoma, 77th AIOS Conference, 14-19 February 2019, Indore
13. Study on health-related quality of life and costing of cataract surgery for treatment of age-related cataract in India, 77th AIOS Conference, 14-19 February 2019, Indore
16. Isolated corneal pigmented mycetoma masquerading as corneal melt with massive uveal prolapse, 77th AIOS Conference, 14-19 February 2019, Indore
17. RAAB: Survey procedures and methodology, 77th AIOS Conference, 14-19 February 2019, Indore
18. Corneal donation, Organ Retrieval Banking Organization, 18 March 2019, AIIMS, New Delhi

Rachna Meel
1. Ocular surface squamous neoplasia—The changing trends, 29th Conference of Oculoplastica Association of India, 28-30 September 2018, Jaipur
2. Case based approach for Entropion management, 10th DOS Teaching Programme, 2 and 3 February 2019, Delhi
3. Debates and Controversies in: Tumours and Ocular Oncology, 77th AIOS Conference, 5-17 February 2019, Indore

Vinod Kumar
1. Moderator of the session “Update on Endophthalmitis”, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, Delhi
3. Participated in debate on uvea session, Spoke against intravitreal for toxoplasmosis, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, Delhi
4. PRN vs Treat-and-Extend regimen for treatment of neovascular AMD (Debate)-AGAINST, Vitreo-retina update, 28-29 April 2018, Coimbatore
5. Optimizing outcomes of Macular Hole Surgery, Vitreo-retina update, 28-29 April 2018, Coimbatore
6. Intraoperative OCT: Fad or Foundation for future VR surgery, Vitreo-retina update, 28-29 April 2018, Coimbatore
7. An unusual subretinal abscess, RETNET, 9 June 2018, Bangalore
8. Representative case of Pachychoroid pigment epitheliopathy, Retina Imaging Congress, 29-30 June 2018, Thiruvanathapuram
10. Changing trends in the management of macular disorders, AIOC ARC Teaching Programme, 1 September 2018, New Delhi
11. Combined mechanism RD taking an unusual turn, Delhi Retina Forum, 1 September 2018, Delhi
12. Digging beneath the macula, Video presentation at Delhi Film Festival, 22 October 2018, Delhi
13. Moderator of Retina Surgical Session, Midterm DOS, 18 November 2018, Delhi
15. Hitting the Bull’s Eye with Case Reports, Invited lecture at iFocus, 25 January 2019, Hyderabad
16. Perceptor, DOS Teaching Programme, 3 February 2019, Delhi
Rohan Chawla
1. Diabetic vitreoretinal surgery, 69th Annual Conference of Delhi Ophthalmic Society (DOS), April 2018, Delhi
2. OCT CME on retina, June 2018, Guwahati
3. OCT-A, CME on retina, June 2018, Guwahati
4. Optic Disc Pit Surgery, Delhi Retina Forum CME, August 2018, Delhi
5. Coloboma RD, Retina Biriyani, September 2018, Chandigarh
6. OCTA in choroiditis, USI of India National Conference, November 2018, Chandigarh
7. Endophthalmitis, AIOS Teaching Programme, November 2018, Delhi

Swati Phuljhele Aalok
1. Brown’s Syndrome, Strabismus Workshop, RP Centre, 22 July 2018, AIIMS, New Delhi
2. Superior Oblique Palsy, Strabismus Workshop, RP Centre, 22 July 2018, AIIMS, New Delhi
3. Cortical Visual Impairment, Silver Jubilee CME Paediatric Ophthalmology and Strabismus, 19 August 2018, I Care Hospital
6. Should III-year resident be given independent surgery, AIOS ARC- ICO Teachers in Ophthalmology Apex Conclave—Session 4, 13 February 2019, Indore
7. Recent advances in management of amblyopia, Annual Conference of All India Ophthalmology Society, 13-17 February 2019, Indore
8. Not just resections but Apt-plications too!!, Annual Conference of All India Ophthalmology Society, 13-17 February 2019, Indore
9. Role of Steroids in NAION, Annual Conference of All India Ophthalmology Society, 13-17 February 2019, Indore

Vivek Gupta
1. Leveraging Whatsapp and free software for GIS mapping in RAAB surveys, 25th ISGEO meeting Indian Institute of Public Health organized by ISGEO, 11 and 12 September 2018, Hyderabad
2. Foldable IOL use and quality of life among patients from primary eye care clinics receiving free cataract surgery in Delhi, 25th ISGEO meeting Indian Institute of Public Health organized by ISGEO, 11 and 12 September 2018, Hyderabad
3. Research terminology and definitions: Study design, population, sampling and variables, National SORT IT Operational Research Course 2018, 3-8 September 2018, Chennai
4. Minerva Mortality in India established through verbal autopsies, IT Platform AIIMS Technical Support Unit (ATSU), 26 and 27 October 2018, DELNET
5. MINERVA coding platform—Registration and use, Cause of death and ICD-coding under SRS-based verbal autopsy in India, 13 October 2018, DELNET
7. Minerva COD coding platform, Technical Working Group (TWG), 22 November 2018, DELNET
8. Experience of adoption and use of clinical terminology at AIIMS, NRCeS Users Meet Winter 2018, 28 November 2018, New Delhi
10. Disability certification: Using the new classification, National Workshop on Strengthening Low Vision and Rehabilitation Services, 29 and 30 November 2018, New Delhi
11. Data Management and Analysis, 77th AIOS Conference, 14-17 February 2019, Indore
12. Research and Training-CBM-RPC Initiative, Inauguration of Visual Rehabilitation and Training Centre, 12 February 2019, New Delhi
13. Disability certification: Using the new visual disability classification, Strengthening Low Vision and Rehabilitation Services National Research and Training Centre for Low Vision and Rehabilitation Services, 29 January 2019, New Delhi
Nishat Hussain Ahmed
1. Antimicrobial Resistance in Ocular Pathogens, Microbiology Clinical Grand Round, 16 October 2018, New Delhi

Shikha Gupta
1. Moderator Glaucoma free paper, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, New Delhi
2. Post traumatic hypotony: Rings and more rings, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, New Delhi
3. Glaucoma medications: New and in the pipeline, Glaucoma Workshop, RPC, 2018, 19 August 2019, New Delhi
4. Anterior segment imaging in glaucoma, GSI 2018, 14-16 September 2018, Kovallam, Kerala
5. Managing the complications of the Tubes, DOS Winter Conference, 17 November 2018, New Delhi
6. Ocular and refractive development in infants, AIIMS Optometry Explorer Conference 2019, 19-20 January 2019, New Delhi
7. Patient responsibilities, Public education lecture, World Glaucoma Week, 11 and 15 March 2019, New Delhi

Neiwete Lomi
1. Molecular diagnosis of paediatric sepsis', CME on ‘Paediatric Sepsis’, 4 May 2018, Delhi
2. Mini Symposium on retinoblastoma, DOS Clinical Meeting, 15 July 2018, New Delhi
3. Brachytherapy—An eye and vision sparing therapy for ocular tumors, Uttara-Eye Conference, 5-7 October 2018, Jim Corbett, Uttarakhand
4. Acute chemical injury, RPC Cornea Workshop, 21 October 2018, New Delhi
5. Challenges of phaco surgery in pseudoexfoliation, RPC Phaco Workshop, 20 January 2019, New Delhi

Dewang Angmo
1. Difficult Situation in Glaucoma, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 7 April 2018, Delhi
2. Challenging cases in Glaucoma, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 7 April 2018, Delhi
3. Approach to Esotropia, Strabismus Workshop, 22 July 2018, Delhi
4. Role of ASOCT in Glaucoma, Glaucoma Workshop, 19 August 2018, Delhi
5. Lasers in Glaucoma, Glaucoma Workshop, 19 August 2018, Delhi
6. Principles of Medical Therapy in Glaucoma, Glaucoma Workshop, 19 August 2018, Delhi
8. Teachers In Ophthalmology Apex Conclave—Session 1—Teaching in Crowded OPD, 77th AIOS Conference, 13 February 2019, Indore
10. Trabeculectomy Basics: Tips and tricks focussing on success—Video Assisted Talk, AIOS Instruction Course, 16 February 2019, Indore
11. Trabeculectomy: Pre-op and post-op handling, AIOS Instruction Course, 16 February 2019, Indore
12. Trabeculectomy basics: Tips and tricks focussing on Success—Video Assisted Talk, AIOS Instruction Course, 16 February 2019, Indore
13. Releasable sutures—When to put and remove, AIOS Instruction Course, 16 February 2019, Indore
14. Role of Ologen in Glaucoma, AIOS Instruction Course, 16 February 2019, Indore
15. Exploring the role of endocannabinoids in glaucoma—Poster walk presentation, WGC 2019, 27-30 March 2019, Melbourne, Australia

Shorya Azad
1. Invited Faculty—“Role of OCTA in Present day Practice”, Gorakhpur Ophthalmological Association Annual Conference, 20 October 2018, Gorakhpur
2. Invited Faculty—“Diabetic Macular Edema—Management”, Gorakhpur Ophthalmological Association Annual Conference, 20 October 2018, Gorakhpur
4. Juvenile open angle glaucoma: Thinking out of the box, Annual Conference of Noida Ophthalmological Society, 5 August 2018, Noida
5. Translating genetics to clinical practice, Annual Meeting of the Tamil Nadu Ophthalmic Association, 10-12 August 2018, Puducherry
6. Genetics what the clinician should know and JOAG, Annual NZOS Meeting, 8-9 September 2018, Chandigarh
7. Steroid induced Glaucoma: Tackling the Menace, The gene association of congenital/Juvenile Glaucoma and SLT for POAG less than 40 years of age, Annual Glaucoma Society of India Meeting, 14-16 September 2018, Trivandrum, Kerala
8. Perimetry in Glaucoma for Eyeshala, Post graduate teaching programme, 77th AIOS Conference, 13 February 2019, Indore
9. The well prepared examination under anesthesia, Congenital Paediatric Glaucoma at the World Glaucoma Congress, 27-30 March 2019, Melbourne

Kanil Ranjith Kumar
1. Cadaveric workshop: Ultrasound guided regional anaesthesia, Comprehensive Symposium on Ultrasound for Anesthesiologists (CUSA), 1 and 2 December 2018, New Delhi
2. Workshop: Ultrasound guided pediatric nerve blocks, 11th Annual Conference of India Association of Paediatric Anaesthesiologist (IAPA), 8 February 2019, New Delhi

Arshad Ayub
1. Arterial blood gas analysis, AIIMS PG Assembly-2018, 18-21 October 2018, New Delhi
4. USG guided regional anaesthesia blocks, CUSA, AIIMS 2018, 1 and 2 December 2018, New Delhi
5. USG guided regional anaesthesia in Paediatrics, IAPA AIIMS 2019, 1 and 2 February 2019, New Delhi

Oral papers/posters presented

Unit II (Vitreoretina, Uvea and ROP)

Unit III (Cornea and Refractive Surgery, Paediatric Cataract)
2. Titiyal JS, Kaur M, Falera R, Bhageswar L, Comparative evaluation of Toric IOLalignment and visual quality with image guided surgery and conventional three step manual marking, PP2-09, Asia Pacific Association of Cataract and Refractive Surgeons (APACRS), July 2018, Chain Mai, Thailand

Unit IV (Glaucoma and Paediatric Cataract)


2. Angmo D, Challenging cases in Glaucoma, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, Delhi


4. Angmo D, Shakarwal J, Sihota R, Dada T, Lens extraction with or without goniosynechialysis in primary angle closure disease for angle parameters assessment, WGC 2019, 29 March 2019, Melbourne, Australia


9. Gupta B, Angmo D, Sihota R, Gupta V, Dada T, Circumferential iridotrabecular contact changes following iridotomy in primary angle closure suspect, primary angle closure and primary angle closure glaucoma eyes, WGC 2019, 29 March 2019, Melbourne, Australia


22. Management of cyclodialysis coming a full circle, Video Talk, WGC 2019, 27-30 March 2019, Melbourne, Australia

26. Shaikh NF, Gupta V, Gupta N, Gupta S, Somarajan B, Chaurasia A, To study clinical and genetic profile of patients with juvenile onset normal tension open angle glaucoma (JNTG), WGC 27-30 March 2019, Melbourne, Australia

Unit V (Squint, Neuro Ophthalmology, Paediatric Ophthalmology and Oculoplasty)

1. Bajaj MS, Vukkadala T, Pushker N, Meel R, Trephination and stent versus canaliculo-DCR in common canalicular block, 122nd Annual Conference of JOS, 19-22 April 2018, Osaka, Japan

Unit VI (Cornea, Squint and Neuro-ophthalmology)


Ocular Microbiology

1. Ahmed NH, Satpathy G, Chawla R, Tandon R, Establishment of Multiplex PCR for Detection of Herpes Simplex Viruses Type-1 and Type-2, Cytomegalovirus, Varicella-Zoster Virus and Adenovirus in Ocular Viral
Community Ophthalmology


Ocular Pathology


**Ocular Biochemistry**


**Ocular Pharmacology**


2. Das U, Titiyal JS, Singh B, Sreenivas V, Jayaram B, Halder N, Velpandian T, Comparison of tear pharmacokinetics of calcium channel blockers following systemic administration in rabbits, -do-, -do-, Hyderabad

3. Das U, Titiyal JS, Singh B, Sreenivas V, Jayaram B, Halder N, Velpandian T, Intraocular penetration and QSPR modeling of 8 congeneric antifungal and antiprotozoal agents in rabbits after systemic administration


5. Gowtham L, Halder N, Dada T, Jayasundar R, Singh B, Velpandian T, Aqueous humor metabolomic profiling of glaucomatous patients, -do-, -do-, -do-

6. Halder N, Das U, Velpandian T, Comparison of Ocular Pharmacokinetics of Selected Antiangiogenic Agents after Intravitreal (IVT) Injection in Rabbits using ESI-LC-MS/MS, -do-, -do-, -do-

7. Halder N, Velpandian T, Precorneal tear film pharmacokinetics of extemporaneously compounded piperacillin and tazobactam in rabbits, 64th Annual meeting of Association of Physiologists and Pharmacologists (APPICON), 27-1 November 2018, Manipal

11. Premkumar C, Das U, Moksha L, Halder N, Velpandian T, Poultry Antibiotics—An emerging multidrug resistant superbug threat in Delhi, -do-, -do-, -do-
12. Velpandian T, Educational course on basics of ocular pharmacology and drug delivery to eye, 25th Annual Meeting of IERG ARVO India Chapter, 27-29 July 2018, Hyderabad
13. Velpandian T, Vision Science to Patient Care—A Translational Research, Meeting organized by Arvind Medical Research Foundation, 25 August 2018, Madurai

Ocular Radiology

1. Combined 18th Meeting of Asian Oceanian Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), organized by PGIMER, 14-16 September 2018, Chandigarh
2. Dohare, N, Sharma S, Madhusudhan KS, Jana M, Das P, Malik R (Poster), Hepatic shear wave elastography as an additional paradigm in assessing response to endovascular intervention in pediatric syndrome, at PGI Chandigarh
8. Prakash A, Sharma S (Oral paper), Orbital cysticercus: More than that meets the eye, Combined 18th Meeting of Asian Oceanian Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), organized by PGIMER, 14-16 September 2018, Chandigarh

Ocular Anaesthesia

1. Dr Dilip R Shende, Dr Ramkumar, Dr L Kashyap, Presented the paper—Comparison of Sub-Tenon Block, Peribulbar Block and IV Fentanyl for Peri-Operative Analgesia in Paediatric Cataract Surgery, 15th Conference of Asian Society of Paediatric Anaesthesiogists (15th ASPA) in conjunction with the 88th Annual Scientific Meeting of the Royal College of Anesthesiologists of Thailand, 18-19 August 2018, Bangkok, Thailand
2. Sarath, Kumar KR, Sinha R, Pranita, C-MAC® D-BLADE for awake oro-tracheal intubation with minimal mouth opening—a safe alternative to fibreoptic bronchoscope, AIIMS Anaesthesiology Post Graduate Assembly, 18 October 2018, New Delhi
3. Dr Dilip R Shende, Dr Velmurgan, Dr L Kashyap, Presented paper: End expiratory occlusion test and mini fluid challenge in predicting fluid responsiveness in acute circulatory failure, 15th Annual Congress of the Turkish Society of Medical and Surgical Intensive Care Medicine and 7th Euro-Asian Critical Care Meeting 2018, 21-24 November 2018, Antalya, Lara, Turkey
4. Sinha R, Yadav S, Khanna P, Ray BR, Pandey RK, Punj J, Darlong V, Dexmedetomidine effect on serum cortisol in paediatric ophthalmic surgery, Post Graduate Assembly (PGA-72) conducted by New York Society of Anaesthesiologist, 7 December 2018, New York, USA
6. Pranita, Kumar KR, Darlong V, Air-Q as rescue conduit for fibreoptic guided intubation in a child with Treacher Collins Syndrome, 11th Annual Conference of India Association of Paediatric Anaesthesiologist, 10 February 2019, New Delhi

RESEARCH

Funded projects

Ongoing

Unit I (Cataract, Refractive surgery, Vitreoretina, Uvea and ROP)

1. CRFB002H2301, RAINBOW Study: A randomized, controlled study evaluating the efficacy and safety of RAinbizumb compared with laser therapy for the treatment of INfants BOrn prematurely With retinopathy of prematurity, Rajpal, Novartis Health Care Private Limited, May 2016 ongoing

Unit II (Vitreoretina, Uvea and ROP)

1. Evaluation of autologous bone marrow derived stem cells in the dry age related macular degeneration—A Comprehensive Study (Code-I880), Atul Kumar, ICMR, 3 years, 2015-2018, Rs 49 lakhs
2. Diabetic Retinopathy: An Epidemiological Study of its Risk Factors and Biological Markers in Delhi under NPCB and VI, Atul Kumar, MoH&FW, 2 years, 2017-2019, Rs 109.25 lakhs
3. TB DNA/RNA in choroiditis, Rohan Chawla, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
4. Chemoport for ocular delivery, Rohan Chawla, AIIMS, 1 year, 2018-2019, Rs 5 lakhs

Unit III (Cornea and Refractive Surgery, Paediatric Cataract)

2. Safety and Efficacy of the Presbyopia IPCL for correction of Presbyopia with Moderate Myopia and Hyperopia, JS Titiyal, IPCL, 3 years, 2018-2021, Rs 7.8 lakhs
3. Study of Inflammatory mediators in aqueous humour of patients undergoing FLACS surgery: A pilot surgery, JS Titiyal, AIIMS, 3 years, 2018-2021, Rs 5 lakhs
4. Comparative evaluation of 0.1% Sodium Hyaluronate drops versus 0.5% Carboxy Methyl Cellulose (CMC) in cases of Steven Johnson Syndrome (SJS) ocular sequelae: A randomized controlled pilot study, Namrata Sharma, Microlabs, 1 year, 2019, Rs 2.67 lakhs
5. Comparative evaluation of 0.1% Sodium Hyaluronate drops versus 0.5% Carboxy Methyl Cellulose (CMC) in cases of Dry eye Disease: A randomized controlled pilot study, Namrata Sharma, Microlabs, 1 year, 2019, Rs 1.22 lakhs
6. Comparative evaluation of combined 0.03% chloroquine phosphate with 0.1% olopatadine drops versus 0.1% olopatadine drops alone in cases of allergic keratoconjunctivitis, Namrata Sharma, FDC Ltd, 1 year, 2018-2019, Rs 10.50 lakhs
7. Efficacy of prophylactic use of Intracameral Moxifloxacin 0.5% in prevention of post-cataract surgery endophthalmitis in North India: A randomized control trial, Namrata Sharma, Cipla Ltd, 1 year 2 months, 2018-2019, Rs 24.5 lakhs

Unit IV (Glaucoma and Paediatric Cataract)

1. Screening of known and novel genetic variations associated with Juvenile onset open angle glaucoma, Viney Gupta, ICMR, 3 years, 2018-2021, Rs 33 lakhs
2. Exome sequencing based detection of novel and causal mutation(s) associated with juvenile onset open angle glaucoma, Viney Gupta, DRDO, 3 years, 2017-2020, Rs 68 lakhs
3. Exploring the role of endocannabinoids in primary adult glaucoma, Dewang Angmo, AIIMS, 2 years, 2017-2019, Rs 9 lakhs
4. Genetics of Primary Angle Closure Disease, Ramanjit Sihota, DBT, 2 years, 2016-2018, Rs 54 lakhs
5. To evaluate the effect of increased outdoor activity on the incidence and progression of myopia in school children, Rohit Saxena, DST, 3 years, 2016-2019, Rs 31.10 lakhs
6. CBM- RPC Disability Eye Health Programme and Strengthening of LV and Rehabilitation Services, Rohit Saxena, CBM, 5 years, 2015-2020, Rs 12.42 lakhs
7. A Pivotal Phase II/III, Randomized, Double-Masked, Sham-Controlled Trial of QPI-1007 delivered by single or Multi-Dose Intravitreal Injections to Subjects with Acute Non-Arteritic Anterior Ischemic Optic Neuropathy (NAION), Rohit Saxena, Quark Pharmaceuticals Inc, 3 years, July 2016-2019

Unit V (Squint, Neuro Ophthalmology, Paediatric Ophthalmology and Oculoplasty)

1. Molecular and mutational studies in the uveal melanoma and their correlation with clinicopathological parameters, Neelam Pushker, ICMR, 3 years, 2017-2020, Rs 30 lakhs
2. A comparative study to evaluate the efficacy of Idebenone in comparison with placebo in Leber’s Heredity Optic Neuropathy patients—A pilot study, Swati Phuljhele Aalok, AIIMS, 2 years, 2017-2019, Rs 4.32 lakhs per year
3. Exploring the Role of Tumor Microenvironment in Retinoblastoma, Rachna Meel, AIIMS, 1 year, 2018-2019, Rs 5 lakhs

Unit VI (Cornea, Squint and Neuro-ophthalmology)

1. Clinical trial of Cultivated Oral Mucosal Epithelial Transplant (COMET) in patients with bilateral ocular surface diseases, Radhika Tandon, DBT, 3 years, 2016-2019
2. Multi-centric Task-force Project: Study of impact of exposure to Ultra Violet Radiation (UVR) and aerosol exposure on ocular health in India Phase-II, Radhika Tandon, ICMR, 5 years, 2018-2023, Rs 428.42 lakhs
3. Comparative evaluation of efficacy of conjunctival stem cell transplantation with cultivated oral mucosal epithelium transplantation in patient with bilateral cicatrizing ocular surface diseases, DBT Centre of Excellence for Stem Cell Research: Basic and Translational (Phase-II), Radhika Tandon, DBT, 3 years, 2017-2020
4. Assessment of inflammatory markers and growth factors in normal and diseased corneas, Noopur Gupta, AIIMS, 3 years, 2016-2019, Rs 5 lakhs
5. Operational research project on conducting training sessions for health care professionals, Noopur Gupta, DHR
7. Clinicopathological significance of melanogenesis in uveal melanoma, Neiwete Lomi, AIIMS, 2 years, 2018-2020, Rs 5 lakhs
8. Exploring the role of tumor microenvironment in retinoblastoma, Rachna Meel, AIIMS, 2 years, 2018-2019, Rs 5 lakhs

Community Ophthalmology

1. Epidemiological study of avoidable blindness in India, Praveen Vashist, MoHFW, 4 years, 2015-2019, Rs 528.08 lakhs
2. To evaluate the effect of increased outdoor activity on the incidence and progression of myopia in school children, Praveen Vashist, DST, 3 years, 2016-2019, Rs 48.63 lakhs
3. Operational research project on strengthening integrated primary eye care in urban vulnerable populations of Delhi, Praveen Vashist, Sightsavers, 3 years, 2016-2019, Rs 163.74 lakhs
4. A Sustainable Model for Comprehensive Outreach Eye Care Service in NCR, Praveen Vashist, Deepalaya, 5 years, 2017-2022, Rs 77.12 lakhs
5. A Sustainable Model for Comprehensive Outreach Eye Care Service in NCR, Praveen Vashist, Hero Motocorp, 3 years, 2018-2021, Rs 37.04 lakhs
6. A Sustainable Model for Comprehensive Outreach Eye Care Service for underserved population, Praveen Vashist, Sparsh, 3 years, 2018-2020, Rs 39.42 lakhs
7. A Sustainable Model for Comprehensive Outreach Eye Care Service for underserved population in Delhi Slums and resettlement colonies, Praveen Vashist, Deepalaya, 5 years, 2018-2022, Rs 125.10 lakhs
8. Comprehensive primary eye care services in rural areas of Delhi/DJJS, Praveen Vashist, Divya Jyoti Jagrati Sansthan, 4 years, 2016-2020, Rs 34.74 lakhs
9. Vision Screening and Eyeglasses Dispensing Programme for Students in Delhi Schools, Praveen Vashist, Vision Spring, 2 years, 2017-2019, Rs 6.40 lakhs
11. An Operational Research on Developing Disability Inclusive Eye Health Programme in India, Suraj Singh Senjam, Christoffel Blinden Mission (CBM), 2 years, 2018-2020, Rs 22.54 lakhs
12. Patterns and pathways of care seeking for cataract and common ocular morbidities and impact of local volunteers on the pathways among urban vulnerable population settings of West Delhi, Vivek Gupta, Swami Sivananda Memorial, 2 years, 2017-2019, Rs 20 lakhs

13. Development of a culturally appropriate health literacy instrument and assessing its validity in Hindi speaking patients receiving general and primary eye care services in New Delhi, Vivek Gupta, AIIMS, 3 years, 2016-2019, Rs 9.96 lakhs

14. Correlation between outdoor activity as measured by UV radiation exposure and myopic refractive error in school going children in New Delhi, Praveen Vashist, ORBIS, 1 year, 2019, Rs 10 lakhs

Ocular Pathology

1. Identification and Characterization of Molecular Targets in Orbital Tumors: Basis of innovative therapeutic strategies, Seema Sen, UGC, 5 years, 2017-2022, Rs 40 lakhs

Ocular Biochemistry

1. Role of circulating endothelial progenitor cell markers in human retinoblastoma, Jasbir Kaur, AIIMS, 2 years, 2017-2018, Rs 10 lakhs

Ocular Pharmacology

1. Developing quality control parameters and dispensing MK Media for Corneal Transplant Preservation for Indian Eye banks under Ministry of Health, T Velpandian, MoHFW, Government of India, 11 years, 2009-2020, Rs 129 lakhs

2. Rationalizing the development of newer intravitreal agents/formulations for diabetic neovascular conditions, T Velpandian, Saksin Lifesciences Pvt Ltd, 1 year, 2018-2019, Rs 18 lakhs

3. Invivo Based QSAR model for the In-Silico Prediction of Drugs Penetrating Through Blood Retinal Barriers for High-throughput Ocular Drug Development, T Velpandian, DBT, 4 years, 2015-2019, Rs 51 lakhs

4. Preclinical studies on selected anti-angiogenic compounds for their suitability in retinal neovascular conditions, Nabanita Halder, AIIMS, 2 years, 2016-2018, Rs 9 lakhs

5. Rationalizing the usage of extemporaneously prepared topical solution of piperacillin and tazobactam combination based on their ocular kinetics, Nabanita Halder, AIIMS, 1 year, 2018-2019, Rs 4.5 lakhs

Completed

Unit I (Cataract, Refractive surgery, Vitreoretina, Uvea and ROP)

1. A 12 months, phase III, randomized, double-masked, multi-centre active controlled study to evaluate the efficacy and safety of two individualized regimen of 0.5 mg ranibizumab vs Verteporfin PDTG in patients with visual impairment due to choroidal neovascularization secondary to pathologic myopia, Rajpal, Novartis Health Care Private Limited, 2 years, 2015-2017, Rs 2.53 lakhs

Unit II (Vitreoretina, Uvea and ROP)

1. Natalizumab in rabbit eye, Rohan Chawla, AIIMS, 2 years, 2016-2018, Rs 5 lakhs

Unit III (Cornea and Refractive Surgery, Paediatric Cataract)

1. Comparison of autologous cultured limbal stem cells on amniotic membrane transplant versus limbal lenticule transplantation alone in the management total limbal stem cell deficiency due to ocular burns: A randomized controlled clinical trial, Namrata Sharma, DST, 2 years 6 months, 2015-2017, Rs 42 lakhs

2. A prospective study to evaluate Suprphob Toric Intra Ocular Lens (IOL) implantation to correct pre-existing corneal astigmatism in patients undergoing cataract surgery, Namrata Sharma, Appasami Associates Pvt Ltd, Chennai, 3 years 7 months, 2015-2018, Rs 4.4 lakhs

3. Detection of HSV-1 etiology in primary keratoplasty and failed grafts in suspected viral keratitis cases: A prospective clinic pathological and molecular study, Professor Namrata Sharma, ICMR, 4 years 2 months, 2013-2017, Rs 31 lakhs

4. Clinical Study to Evaluate the Safety and Efficacy of the Bioengineered Cornea in Patients Requiring Deep Anterior Lamellar Keratoplasty, Namrata Sharma, Linkocare Lifesciences, Sweden (Care Group India), 2 years 4 months, 2016-2018, Rs 12.8 lakhs

5. Asia Cornea Society for Infectious keratitis study, ACSIKS Study, Namrata Sharma, Asia Cornea Society, Singapore, 2 years, 2015-2017, Rs 18.29 lakhs
Unit IV (Glaucoma and Paediatric Cataract)

1. Cascade screening of family members of patients with JOAG, Viney Gupta, ICMR, 3 years, 2015-2018, Rs 47 lakhs

Ocular Microbiology

1. Establishment of Multiplex PCR for Detection of Herpes Simplex Viruses Type 1 and Type 2, Cytomegalovirus, Varicella-Zoster Virus and Adenovirus in Ocular Viral Infections, Nishat Hussain Ahmed, AIIMS, 24 months, 2016-2018, Rs 7.7 lakhs

Community Ophthalmology

1. Community Ophthalmology Programme in South Delhi, Praveen Vashist, Deepalaya, 1 year, 2017-2018, Rs 2 lakhs

Ocular Pathology

1. Molecular study of mitochondrial DNA in intraocular malignant childhood tumours, Seema Kashyap, ICMR, 3 years, 2015-2018

Ocular Pharmacology

2. Collaborative Studies on Developing newer antimicrobials based on QSPR platform for its projected use in ocular and other infections, T Velpandian, Vyome Biosciences, 4 years, 2014-2018, Rs 23.12 lakhs
3. Preclinical studies on selected anti-angiogenic compounds for their suitability in retinal neovascular conditions, Nabana Halder, AIIMS, 2 years, 2016-2018, Rs 9 lakhs
4. Development and standardisation of pharmaceutical products for their use in special population, T Velpandian, INMAS, DRDO, 3 years, 2015-2018, Rs 26 lakhs

Departmental projects

Ongoing

Unit I (Cataract, Refractive Surgery, Vitreoretina, Uvea and ROP)

1. Anatomical and functional outcomes of drainage through posterior retinotomy versus PFCL assisted drainage through pre-existing break in vitrectomy for rhegmatogenous retinal detachment
2. Characterization of secondary/idiopathic choroidal neovascular membranes and their response to anti-VEGF therapy using optical coherence tomography angiography
3. Pilot study to evaluate efficacy of subthreshold micropulse laser (577 nm) in case of central serous chorioretinopathy
4. Prospective Observational Study of Cases of Aggressive Posterior Retinopathy of Prematurity (APROP) and Zone 1 Retinopathy of Prematurity
5. To characterize treatment Naive Choroidal Neovascular Membranes Using Optical Coherence Tomography angiography
6. To compare the outcomes of 0.1 mg vs 0.25 mg Intravitreal Ranibizumab in Aggressive Posterior Retinopathy of Prematurity
7. To study the outcomes of immediate sequential Bilateral ROP surgery

Unit II (Vitreoretina, Uvea and ROP)

1. A randomized, masked, controlled trial to study the safety and efficacy of suprachoroidal CLS-TA in conjunction with intravitreal aflibercept in subject’s retinal vein occlusion
2. Assessment of role of Autologous Bone Marrow derived stem cells in the treatment of Dry Age Related Macular Degeneration—A comprehensive study
3. Characterisation of treatment naive choroidal neovascular membranes using OCT—A guide
4. Choroidal thickness measurement in normal healthy india population by using swept source optical coherence tomography
5. Coguide—High resolution photoreceptor and microvascular imaging using adaptive optics fundus camera and OCT angiography in early stages of diabetic retinopathy
7. Comparative evaluation of SF6 versus partial air tamponade on structural and functional outcomes of epiretinal membrane surgery
8. Comparison of antivegf alone with anti-VEGF + 2 mg Tricort in cases of CRVO
9. Comparison of effect of 3 antibiotic regimens in endophthalmitis
10. Digitally Assisted VS conventional vitreo-retinal surgery—A prospective randomized trial
11. Efficacy of Eplerenone in polypoidal choroidal vasculopathy
12. Efficacy of Oral Eplerenone in polypoidal choroidal vasculopathy
13. Multimodal retinal imaging of eyes with metamorphopsia after retinal detachment surgery
14. Evaluation of outer retinal structural integrity using En Face OCT Imaging in post anti-VEGF eyes with Diabetic Macular Oedema—A prospective study
15. High-resolution Photoreceptor and Microvascular Imaging Using Adaptive Optics Fundus Camera and OCT-angiography in Early Stages of Diabetic Retinopathy
16. Intraoperative monitoring of cerebral oxygen saturation using Near Infrared Spectroscopy (NIRS) and assessment of risk factors for low cerebral oxygen saturation in preterm and very preterm infants with retinopathy of prematurity during vitreoretinal surgeries: An observational prospective study
17. Intravitreal steroid in CRVO, Effect of various antibiotics in Endophthalmitis
18. Choroidal thickness measurement in normal healthy Indian population by using swept source optical coherence tomography
19. Metagenenomics in endophthalmitis and septicemia
20. Multimodal retinal imaging of eyes with metamorphopsia after retinal detachment surgery
21. Predictors for surgical outcomes in stage 4a retinopathy of prematurity
22. Prospective observational study of cases of APROP and zone 1 ROP
23. Role of 3D Heads up Digitally Assisted Vitreoretinal surgery in primary and recurrent rhegmatogenous retinal detachment with proliferative vitreoretinopathy—A prospective randomized trial
24. Surgical outcomes of sutureless clear corneal microincision vitrectomy surgery in end stage 5 ROP
25. To compare the outcomes of 0.1 mg vs 0.25 mg Intravitreal Ranibizumab in Aggressive Posterior Retinopathy of Prematurity
26. To Compare the Outcomes of Laser vs Combined Laser and Ranibizumab in Threshold Retinopathy of Prematurity
27. To study the outcomes of Immediate Sequential Bilateral Vitreo Retinal Surgery (ISBVS) in advanced ROP
28. Ultra-wide Field Fluorescin Angiography (UWFA) guided peripheral laser photoacoagulation in Recalcitrant Diabetic Macular Edema eyes—A comparative randomized study
29. Use of broad-range PCR assay for diagnosis of endophthalmitis and its comparisons against conventional and automated (BACTEC) culture
30. Yoga in CSR

Unit III (Cornea and Refractive Surgery, Paediatric Cataract)

1. Effect of Glaucoma Surgery on Corneal topography
2. Pre-descemets endothelial Keratoplasty vs descemets membrane endothelial keratoplasty
3. Role of Microscope intergrated intraoperative optical coherence tomography in pediatric Keratoplasty

Unit IV (Glaucoma and Paediatric Cataract)

1. A randomized controlled trail to evaluate the effect of low dose atropine eye drops for childhood myopia
2. A randomized controlled trial to compare outcomes of trabeculectomy alone vs trabeculectomy with deep scleral pocket
3. Effect of “Yoga Based Intervention” on Inflammatory Markers and Gene Expression Profile in Blood, Aqueous and Trabecular Meshwork of Primary Open Angle Glaucoma Patients: A randomized controlled trial
4. Correlation of AS OCT changes in trabecular meshwork with SLT outcomes among JOAG, OCT angiography in POAG and PACG
5. Effect of Mindfulness Based Stress Reduction (MBSR) on intraocular pressure in patients with ocular hypertension
6. Effect of Mindfulness Based Stress Reduction (MBSR) on Optic Disc Perfusion using OCT Angiography in Glaucoma Patients: A Randomized Controlled Trial
7. Effect of Yoga based intervention in IOP, QOL, inflammatory markers, and gene expression in glaucoma pts: A RCT
8. RCT to compare outcomes of Trabeculectomy alone vs Trabeculectomy with Deep sclerectomy
9. Endocyclophotocoagulation in refractory glaucoma, Role of SLT in Pseudophakic Glaucoma
10. Evaluating Nd-Yag PL Vs Cataract extraction in PACG—A prospective observational cohort study
11. Evaluation of effect of mindfulness based stress reduction on intraocular pressure in patients with ocular hypertension
12. Evaluation of the effects of trabeculectomy on corneal topography, aberrometry, biomechanics, and ocular surface
13. Longterm evaluation of medical therapy vs Surgical therapy in chronic glaucomas and QOL outcome, Predicting visual field deterioration based on progression analysis
14. Metabolomic and pharmacogenomic evaluation of glaucoma therapy, Incidence of Congenital Glaucoma—A multicentric Trial, Glaucoma Definition study India
15. Prevalence of glaucoma in diabetic retinopathy patients, Comparative evaluation of corneal biomechanical aberrations following corneal cross linking between thin corneas vs corneas with thickness >400 microns in patients with keratoconus
16. Prevalence of Glaucoma in Diabetic retinopathy, Evaluating the severity of glaucoma in consanguinous marriage, A 10-year review of the perimetric and confocal scanning laser ophthalmoscopic changes in glaucoma
11. Lenticular changes with use of statins—A hospital based prospective cohort study
12. Operational Research Project on conducting training sessions for health care professionals
13. Role of collagen cross linking for bleb leakage
14. Role of conjunctival autofluorescence in ocular surface squamous neoplasia
15. Sonicated versus non-sonicated liposomal amphotericin B in the treatment of fungal corneal ulcer
16. Ocular Surface evaluation in Vernal Keratoconjunctivitis
17. Study of posterior corneal astigmatism in normal and post refractive surgery corneas, Antifungal susceptibility testing in fungal keratitis
18. Study of the effect of red tinted filters on colour discrimination in patients with congenital colour vision deficiency and the impact of type, severity and structural change

Ocular Microbiology
1. Correlation of Antibiotic Resistance Patterns of Ocular Bacterial Isolates and Antibiotic Use in Patients Admitted to Hospital—A Step Towards Antimicrobial Stewardship
2. Species Identification and Determination of Virulence Factors of Coagulase Negative Staphylococci in Ocular Infections
3. Use of advanced genomics in Microbiology of culture negative infections

Community Ophthalmology
1. A population based study to assess the prevalence of glaucoma in Delhi
2. Community based operational research study on involvement of Accredited Social Health Activists (ASHAs) in strengthening Primary Eye Care services for Urban Vulnerable Population of Delhi
3. Epidemiological Study on Childhood Visual Impairment in Delhi

Ocular Pathology
1. Molecular Characterization of Malignant Lacrimal Gland Tumours
2. Molecular Characterization of NFκB pathway in Uveal Melanoma
3. Molecular characterization of Steven Johnson Syndrome Ocular Sequelae
4. Molecular mechanism of melanogenesis pathway in uveal melanoma
5. Ocular Surface evaluation in vernal Keratoconjunctivitis
6. Study of CHED patients with and without SLC4A11 Gene mutation
7. Study of tear film and ocular surface changes after long term use of Rose K Lenses in patients with Keratoconus
8. Targeting PD-1/PD-L1 Pathway in Tumor Microenvironment: New Immunotherapeutic Paradigm for Ocular Malignancies
9. To study variable gene expression of collagen and associated degradative enzymes present in human vitreous in patients with myopia vs normal population

Ocular Pharmacology
1. Collaborative Studies on Developing newer antimicrobials based on QSPR platform for its projected use in ocular and other infections
2. Determining Omics relationship with the pathophysiology of diabetic retinopathy
3. Development and standardisation of pharmaceutical products for their use in special population
4. Feasibility Study for Developing the Pharmaceutical and Bio-analytical Methods for the Development of Newer Anticancer Agents for Retinoblastoma
5. Invivo Based QSPR model for the In-Silico Prediction of Drugs Penetrating Through Blood Retinal Barriers for High-throughput Ocular Drug Development
6. Metabolomic and pharmacogenomic evaluation of glaucoma therapy
7. Preclinical studies on selected anti-angiogenic compounds for their suitability in retinal neovascular conditions
8. Understanding the drug transporter functions in blood ocular barriers during ocular inflammation in the experimental model of uveitis
Ocular Radiology
1. Imaging and Intervention in Paediatric Budd Chiari Syndrome, Ultrasound Assessment of Gastric Emptying of Clear Fluids with Different Energy Content in Children: A Crossover Pilot Study
2. Role of MR guided biopsy in detection of prostate cancer, Effects of use of bolster and its orientation on kidney position in reference to prone percutaneous nephrolithotomy, Role of ultrasound and advanced MRI in evaluation of prostate cancer

Ocular Anaesthesia
1. Comparison of low-fresh gas flow technique to standard technique of sevoflurane induction in children
2. Comparison of paravertebral block and Caudal epidural block undergoing renal surgery in pediatric patients
3. Comparison of Ultrasound guided femoro-scatic nerve block versus epidural analgesia for post-operative analgesia following excision of knee tumours—A randomized control study
4. Effect of entropy guided low flow desflurane anaesthesia on laryngeal mask airway removal time in children undergoing ophthalmic surgery—A prospective, randomized, comparative study
5. Intra operative monitoring of cerebral oxygen saturation using Near Infra Red Spectroscopy (NIRS) and Assessment of risk factors for Low cerebral oxygen saturation in preterm and very preterm infants with Retinopathy of prematurity during Vitreo retinal surgeries: An observational prospective study
6. Serum Procalcitonin, Interleukin-6 and sTREM-1 as diagnostic and prognostic markers in sepsis in Intensive Care Unit
7. To determine the association between altered cerebral blood flow in the frontal cortex during sevoflurane anaesthesia and incidence of postoperative emergence delirium in children: An fNIRS based observational study
8. To study the outcomes of Immediate Sequential Bilateral Vitreo Retinal Surgery (ISBVS) in advanced ROP, Fascia Iliaca Block for Acetabular Fractures, Erector Spinae Block for Spine surgeries, USG guided confirmation of LMA

Completed

Unit I (Cataract, Refractive Surgery, Vitreoretina, Uvea and ROP)
1. Anatomical and functional outcomes of drainage through posterior retinotomy versus PFCL assisted drainage through pre-existing break in vitrectomy for rhegmatogenous retinal detachment
2. Characterization of secondary/idiopathic choroidal neovascular membranes and their response to anti-VEGF therapy using optical coherence tomography angiography
3. Characterization of treatment Naive Choroidal Neovascular Membranes Using Optical Coherence Tomography-Angiography
4. Choroidal Vascular Patterns in Sturge Weber Syndrome
5. Comparison of OCTA and fluorescein angiography in patient of diabetic retinopathy
6. Determination of clinic-imaging abnormalities and vitreo retina-choroido-scleral relationship in Myopia
7. Ocular biometry in pediatric age group less than 15 years using 35 mhz ultrasound biomicroscopy
8. Patterns of retinal vasculitis and their clinical and etiological profile—Ultra Wide Field (UWF) study
9. Pilot Study to evaluate efficacy of subthreshold micropulse laser (577 nm) in case of central serous Chorioretinopathy
10. Prevalence of ocular manifestation of tuberculosis in pulmonary TB patients
11. Prospective Observational Study of Cases of Aggressive Posterior Retinopathy of Prematurity (APROP) and Zone 1 Retinopathy of Prematurity
12. Prospective pilot study for compassion of three antibiotic drug regimens (intravitreal) in endophthalmitis
13. Retinopathy of prematurity profile in Inborn and Outborn babies in a tertiary hospital
14. Role of fundus fluorescein angiography in the management of aggressive posterior retinopathy of prematurity
15. To characterize treatment Naive Choroidal Neovascular Membranes Using Optical Coherence Tomography-Angiography
16. To compare the outcomes of 0.1 mg vs 0.25 mg Intravitreal Ranibizumab in Aggressive Posterior Retinopathy of Prematurity
17. To study efficacy of Intravitreal Ranibizumab plus Tricort vs Intravitreal ranibizumab alone in patients with macular edema secondary to CRVO
18. To study the outcomes of immediate sequential Bilateral ROP surgery
Unit II (Vitreoretina, Uvea and ROP)
1. A randomized controlled trial to evaluate the Role of no Strict prone positioning versus one day postoperative strict prone positioning in anatomical closure of Idiopathic full thickness Macular Hole: A preliminary study
2. Anatomical and Functional outcome after Vitrectomy (with ILM peeling) for Recalcitrant Tractional VS non-Tractional Diabetic Macular Edema
3. Anatomical and visual Outcome of posteriorly dislocated lens after phacoemulsification, Services in Dr RPC AIIMS, New Delhi
4. Assessment of role of autologous bone marrow derived stem cells in the treatment of dry age-related macular degeneration—A comprehensive study
5. Comparative evaluation of conventional macular hole surgery with inverted Internal Limiting Membrane flap technique for large macular holes—A prospective randomized study
6. Comparative evaluation of ultra-wide field fluorescein angiography guided peripheral laser photocoagulation with and without intravitreal antiVEGF in recalcitrant centre involving diabetic macular edema—A randomized study
7. Comparison of Ultra-Wide Field FA (UWFFA) with conv FA guided Pascal laser treatment in DR
8. Evaluation of Autologous Stem Cells for management of Dry AMD
9. Evaluation of the Role of Retinal Renin Angiotensin System (RAS) in the Animal Model of Retinopathy of Prematurity (ROP)
10. Measurement of choroidal thickness in healthy Indian population using swept source OCT
11. Microwave Assisted Synthesis, Development of LC-ESI-MS Method and Quantification of Ocular bis-retinoids in Human Cadaver Retinal Pigment Epithelium
12. OCT-A in CNV
13. Predictors for surgical outcomes in stage 4a retinopathy of prematurity
14. Prospective randomized interventional trial comparing branch retinal vein occlusion treatment with ultra wide field imaging guided peripheral laser in combination with Ranibizumab v/s Ranibizumab only in treatment naïve cases
15. Retinopathy of prematurity profile in Inborn and out born babies in a tertiary Hospital Services in Dr RPC AIIMS, New Delhi
16. Role of fundus fluorescein Angiography in the management of Aggressive posterior Retinopathy of Prematurity Services in Dr RPC AIIMS New Delhi
17. Strengthening of Low Vision and Rehabilitation Services in Dr RPC AIIMS, New Delhi
18. To Determine the Patterns of Ocular Trauma and final visual acuity based on Ocular Trauma Scoring (OTS)
19. To study the role of additional posterior barrage laser in Type 1 Zone 2 ROP

Unit III (Cornea and Refractive Surgery, Paediatric Cataract)
1. A study to identify the Genetic basis underlying Epidermal Necrolysis
2. Clinicobiochemical profile of tear fluid in Patients of Primary Open Angle Glaucoma
3. Comparative Evaluation of Femtosecond Small Incision Lenticule Extraction (SMILE) and Femtosecond Laser Assisted In-situ Keratomileusis (FS-LASIK) in moderate to high Myopia
4. Evaluation of Etiology, Clinical features and Outcomes in cases of Descemetocoele, An Ambispective Observational Study
5. Evaluation of Visual functions and Ocular surface before and after Conjunctival Autograft in Patients with Pterygium
6. Molecular Characterization of Stevens-Johnson Syndrome Ocular Sequelae

Unit IV (Glaucoma and Paediatric Cataract)
1. Circumferential iridotrabecular contact changes following iridotomy in primary angle closure suspect, primary angle closure and primary angle closure glaucoma eyes
2. Evaluation of the effect of mindfulness based stress reduction in patients with primary open angle glaucoma

Unit V (Squint, Neuro Ophthalmology, Paediatric Ophthalmology and Oculoplasty)
1. Comparative study of trephination with stent with mitomycin c vs trephination with stent in distal canalicular and common canalicular block
2. Evaluation of botulinum toxin injection in lacrimal outflow obstruction
3. Evaluation of canalicular trephination and monocanalicular stenting versus canaliculodacryocystorhinostomy in common canalicular block
4. Evaluation of collagen matrix implant in failed dacryocystorhinostomy surgery as compared to mitomycin c
5. Evaluation of surgical outcome of porous polyethylene implants in anophthalmic sockets with implant migration
6. Evaluation of vitreous seed regression using intravitreal melphalan in combination with intravenous chemotherapy for persistent/partially regressing vitreous seeds in group C and D retinoblastoma In vivo assessment of somatostatin receptor expression with 68Ga DOTANOC PET/CT in patients with autoimmune and immune related orbitopathy
7. Mucous Membrane Grafting (Fibrin Glue vs Suture) for Lid Margin Pathologies in Patients with Stevens-Johnson Syndrome: A randomized comparative study
8. The spectrum of visual impairment in Hypoxic Ischemic Encephalopathy and their relationship with clinical classification

Ocular Microbiology
1. Molecular characterization of Fungi from Mycotic Keratitis and invasive infections and comparison with conventional methods like direct detection and culture

Ocular Pathology
1. Correlation of between baseline intraocular pressure and histopathology of trabecular meshwork

Ocular Biochemistry
1. Clinical performance and ocular surface homeostasis study with gas permeable scleral contact lens for ocular surface disease
2. Gene expression profiling in retinopathy of prematurity
3. Genomic alterations in juvenile open angle glaucoma
4. Molecular alterations in glaucoma
5. Study of Endothelial Progenitor Cell (EPC) tetrahydrobiopterin (BH4) levels and its association with EPC number and function in Coronary Artery Disease (CAD) patients

Ocular Pharmacology
1. Analysing the levels of Vitamin D3 in pharmaceutical formulations available in the market
2. Comparison of time to intubate and intubation conditions with CMAC Miller blade size 1 and CMAC Macintosh blade size 2 in paediatric patients—A prospective randomized controlled study
3. Comparison of two techniques (bolus morphine vs morphine infusion) of analgesic titration with IV morphine in cancer patients
4. Development and standardisation of pharmaceutical products for their use in special population
5. Diagnostic performance of Lung Ultrasound in Ventilator Associated Pneumonia
6. Effect of ACE inhibitor on plasma levels of norepinephrine
7. Effect of low dose ketamine on inflammatory markers and on perioperative analgesia in patients undergoing laparoscopic hernia surgery—A prospective, randomized, comparative study
8. Efficacy of Pulse Dexamethasone in addition to standard therapy alone in children with Juvenile Idiopathic Arthritis: A double blind randomised controlled trial
9. Efficacy of three different antiseptic solutions in neonates admitted in NICU: A randomised non-inferiority trial
10. End expiratory occlusion test and mini fluid challenge for predicting fluid responsiveness in acute circulatory failure
11. Estimation of ceramides in autosomal recessive congenital ichthyosis
12. Estimation of neurotransmitters, metabolites and phospholipids from epileptic brain tissues
13. Evaluation of the Role of Ultrascan Biomicroscopy in Retinoblastoma
14. Feasibility study for developing the pharmaceutical and bio-analytical methods for the development of newer anticancer agents for retinoblastoma
15. Hormonal response during oscillatory lower body negative pressure
16. Pharmacokinetic evaluation of first line anti-tubercular drugs in patients with TB
17. Pharmacokinetic evaluation of second line anti-tubercular drugs in patients with TB
18. Pharmacokinetics of second-line anti-tubercular drugs in children
19. Pharmacological evaluation of selected Ayurvedic formulation
20. Preclinical studies on selected anti-angiogenic compounds for their suitability in retinal neovascular conditions
21. Therapeutic drug monitoring and evaluation of clinical response in abdominal tuberculosis
22. Time-based animal study in hind limb of rat for sequestration of methotrexate-loaded nanoparticles
23. Toxicological analysis and distribution pattern of alcohol and different drugs in various biological samples and their neurobiological effects in suicidal deaths
24. Understanding the drug transporter functions in blood ocular barriers during ocular inflammation in the experimental model of uveitis

Ocular Radiology
1. Role of multi parametric MRI, and Ga-68 PSMA PET scan in evaluation of intermediate and high grade prostate cancer

Collaborative projects

Ongoing

Unit IV (Glaucoma and Paediatric Cataract)
1. Development of a portable and non-contact type intraocular (IOP) pressure measurement device, IIT, Delhi

Unit VI (Cornea, Squint and Neuro-ophthalmology)
1. A metagenomic approach to evaluate the human ocular microbiome in ocular surface disease
2. Efficacy of low dose versus standard regimen of oral betamethasone pulse therapy in rapidly progressive vitiligo: A randomized controlled trial

Community Ophthalmology
1. Establishing a Technical Support Unit (TSU) for Verbal Autopsy based Cause of Death Ascertainment in the Sample Registration System, Registrar General of India—MINerVA - N1715, CCM, AIIMS and Registrar General of India
2. SNOMED-CT: NRCeS—Development of National Drug Repository Database, MoHFW and C-DAC Pune
3. Study on Health-Related Quality of Life and Costing of cataract surgery for treatment of age-related cataract in India
4. Tools to Diagnose—Eye-development and assessment of image analysis tool for identification of glaucoma, IIT Delhi
5. Tools to Diagnose—Eye-development and assessment of image analysis tools for identification of retinal disorders, Diabetic Retinopathy, IIT, Delhi

Ocular Pathology
1. Study of Lipid Metabolism in Ocular Malignancies (N-PDF; DST-SERB), Jamia-Millia Islamia

Shakti Gupta
1. Indoor navigation assistance for patients at Dr RP Centre for Ophthalmic Sciences, Assitech Lab, Indian Institute of Technology, Delhi

PUBLICATIONS
Journals: 254    Abstracts: 10    Chapters in Books: 22

PATIENT CARE

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<thead>
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<th>New Cases</th>
<th>Old Cases</th>
<th>Total</th>
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<td>Emergency</td>
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<td>Cornea Clinic</td>
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AIIMS 2018-19 / 667
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<th>Clinic</th>
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<td>Low Visual Aid</td>
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<td>a) Orthoptic Clinic</td>
<td>568</td>
<td>21,690</td>
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<td>b) Squint Clinic</td>
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<td>Refraction</td>
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<td>Day Care</td>
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<td><strong>Grand Total</strong></td>
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<td><strong>49,576</strong></td>
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| Deaths                         |         |         | 0       |

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<tr>
<td>Average bed occupancy ratio</td>
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<td>Average length of stay</td>
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<tr>
<td>Average OPD Attendance per working day</td>
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<td>1,916 per day</td>
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<tr>
<td>Average No. of Indoor Admission per day</td>
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<td>130 per day</td>
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<tr>
<td>Average No. of Surgeries per day</td>
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<td>136 per day</td>
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<td><strong>Investigations</strong></td>
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<td>Dark room prone provocation test (DRPPT)</td>
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<td>Tear Lab</td>
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<td>Pupillometry</td>
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<td>Scanning and storage of MRI records</td>
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<td>Photo Dynamic Therapy (PDT)</td>
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<td>GDx Variable Corneal Compensation (VCC) and Enhanced Corneal Compensation (ECC)</td>
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<td>Ultrasonic Biomicroscopy</td>
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<td>Adaptive Optics</td>
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<td>Flaremeter</td>
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</table>
Optic Neuritis Clinic 652
Electroretinogram (ERG) and Multifocal ERG 1,158
Medical Board 1,504
Goldman Visual Field 2,105
Schirmer + Tear Film Breakup Time 2,195
YAG Laser + Selective Laser Trabeculectomy 2,662
Contact Lens Clinic 2,852
Ant. Seg. Clinical Photograph 2,984
i-TRACE Aberrometer 3,415
Retinopathy of Prematurity (ROP) 3,527
Video Keratography (VKG), Cassini + Sirius Topography 3,894
Post Segment laser (PRP) 4,105
Contrast Sensitivity 4,825
OCT Angiography 4,943
Heidelberg Retinal Tomography (HRT) 5,039
ECG 5,462
Low Vision Aid Services 5,585
Colour Vision Assessment 6,527
Visual Evoked Responses (VER) 7,615
Fundus Photo and Auto-fluorescence 8,237
Laser Interferometry 9,515
Fluorescein Fundus Angiography (FFA), and Indocyanin Green Angiography (ICG) 10,434
Specular Microscopy 10,815
Anterior Segment Ocular Coherence Tomography (AS OCT) 11,397
Pentacam 12,235
Humphrey Perimeter and Micro Perimetry 13,997
Auto-lensometry 14,541
Pachymetry (Central Corneal Thickness and NCCT) 15,627
Axial Length 24,491
B-Scan Ultrasound 25,945
Keratometry (Manual + Auto) 27,913
Ocular Biometry, IOL Master & Lens Star 29,934
High Definition OCT (HD-OCT), Polarisation-sensitive OCT (PS OCT) 56,459
Refraction 99,015
Auto Refraction (AR) 1,15,969
Non-contact tonometry (NCT), Applanation tonometry (ATN) 1,36,415
Total 6,95,913

Community Ophthalmology

Total Patients Seen in Outreach Programme: 1,09,772

<table>
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<tr>
<th>Primary Eye Care Services through Vision Centres</th>
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<tbody>
<tr>
<td>Number of Vision Centres</td>
<td>28</td>
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<tr>
<td>Attendees at Vision Centres</td>
<td>72,944</td>
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<tr>
<td>Refractions Conducted</td>
<td>29,578</td>
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<tr>
<td>Spectacles prescribed</td>
<td>28,704</td>
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<tr>
<td>Patients referred to RP Centre</td>
<td>9,186</td>
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Primary Eye Care Volunteer training events
Volunteers Training Programmes organized | 16
Volunteers Trained | 230

**Eye Health Education Events**
Eye Health Education Events conducted in Vision Centres | 1,104
Eye Health Education Events conducted in RPC | 198

**Reach-in-Programme for cataract surgery in Rural and remote areas**
Cataract screening camps organized | 2
People examined | 395
Refraction | 189
Patients referred to RP Centre | 124

**School Eye Screening (SES) Programme**
Schools covered under SES Programme | 34
Numbers of Children screened | 36,378
Refractions Conducted | 5,092
Spectacles Prescribed | 3,312
Spectacles Booked | 3,312

**Diabetic Retinopathy Screening Camps**
Total number of DR screening camps organized | 242
Diabetic patients screened in camps | 2,764
Total DR Patients identified and referred to RP Centre | 562 (523)

**Patient Reported for treatment at Dr RP Centre under Community Ophthalmology**
Total Patient Reported under community ophthalmology | 4,825
Total Patient Operated for cataract surgeries under community ophthalmology | 2,121

**Follow-up**
Follow up clinic organized | 50
Patients examined in follow-up clinics | 1,422

**Low Vision Rehabilitation**
Total Enrolled | 772
Mobility Training | 463
ADL Counselling | 641
Visual Disability Certification | 274
Vocational Training | 55
Special School Admission | 26

**Ocular Biochemistry**

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<th>Tests Name</th>
<th>Number</th>
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<td>2.</td>
<td>HbA1c</td>
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<td>3.</td>
<td>TBIL</td>
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<td>4.</td>
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<td>5.</td>
<td>ALT or SGPT</td>
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<td>6.</td>
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<td>8.</td>
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</tr>
<tr>
<td>Sl. No.</td>
<td>Test</td>
<td>Total</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>11.</td>
<td>Urea (UREA)</td>
<td>13,564</td>
</tr>
<tr>
<td>12.</td>
<td>Uric Acid (UA)</td>
<td>13,563</td>
</tr>
<tr>
<td>13.</td>
<td>Sodium (Na+)</td>
<td>13,566</td>
</tr>
<tr>
<td>14.</td>
<td>Potassium (K+)</td>
<td>13,566</td>
</tr>
<tr>
<td>15.</td>
<td>Chloride (Cl-)</td>
<td>13,566</td>
</tr>
<tr>
<td>16.</td>
<td>TCHOL</td>
<td>2,766</td>
</tr>
<tr>
<td>17.</td>
<td>LDL-C</td>
<td>2,766</td>
</tr>
<tr>
<td>18.</td>
<td>HDL-C</td>
<td>2,766</td>
</tr>
<tr>
<td>19.</td>
<td>Triglyceride (TRIG)</td>
<td>2,766</td>
</tr>
<tr>
<td>20.</td>
<td>Free T3</td>
<td>1,052</td>
</tr>
<tr>
<td>21.</td>
<td>Free T4</td>
<td>1,053</td>
</tr>
<tr>
<td>22.</td>
<td>TSH</td>
<td>1,121</td>
</tr>
<tr>
<td>23.</td>
<td>Vitamin B12</td>
<td>378</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td>1,95,302</td>
</tr>
</tbody>
</table>

**Ocular Microbiology**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Test</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bacterial culture and sensitivity</td>
<td>17,858</td>
</tr>
<tr>
<td>2.</td>
<td>Fungal culture</td>
<td>5,016</td>
</tr>
<tr>
<td>3.</td>
<td>Specimens processed for cytology</td>
<td>2,740</td>
</tr>
<tr>
<td>4.</td>
<td>Specimens processed for chlamydia ag detection using DFA</td>
<td>58</td>
</tr>
<tr>
<td>5.</td>
<td>Specimens processed for HSV Ag detection using DFA</td>
<td>26</td>
</tr>
<tr>
<td>6.</td>
<td>Viral PCR for herpes simplex virus, adeno and coxsackie virus (conjunctivitis/corneal ulcer)</td>
<td>149</td>
</tr>
<tr>
<td>7.</td>
<td>Specimens processed for microsporidia</td>
<td>18</td>
</tr>
<tr>
<td>8.</td>
<td>Specimens processed for mycobacteria</td>
<td>19</td>
</tr>
<tr>
<td>9.</td>
<td>Culture for acanthamoeba</td>
<td>29</td>
</tr>
<tr>
<td>10.</td>
<td>Automated (Bactec) culture for endophthalmitis</td>
<td>46</td>
</tr>
<tr>
<td>11.</td>
<td>Broad range PCR for endophthalmitis</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>26,005</strong></td>
</tr>
</tbody>
</table>

**Ocular Pathology**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood</td>
<td></td>
<td>1,18,089</td>
</tr>
<tr>
<td>Urine</td>
<td></td>
<td>7,852</td>
</tr>
<tr>
<td>Cyto + Cyto research</td>
<td></td>
<td>2,460</td>
</tr>
<tr>
<td>Histo + Histo research</td>
<td></td>
<td>28,763</td>
</tr>
<tr>
<td><strong>Total Number of Investigations</strong></td>
<td></td>
<td><strong>1,57,164</strong></td>
</tr>
</tbody>
</table>

**Ocular Pharmacology**

**Drugs Supplied/ Dispensed through Ocular Pharmacy during the year**

<table>
<thead>
<tr>
<th>Drug Dispensed</th>
<th>Total Vials (5 ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Drugs purchased by the patient and fortified at the pharmacy</td>
<td></td>
</tr>
<tr>
<td>Acetyl Cysteine (10, 20%, 2.5%, 5%)</td>
<td>194 vials</td>
</tr>
<tr>
<td>Amikacin (1.3%, 2.5%,1%,5%)</td>
<td>47 vials</td>
</tr>
<tr>
<td>Amphotericin B (0.25, 0.15%)</td>
<td>57 vials</td>
</tr>
<tr>
<td>Betaxolol (0.25%)</td>
<td>363 vials</td>
</tr>
<tr>
<td>Cefazolin (5%)</td>
<td>1,132 vials</td>
</tr>
<tr>
<td>Conc. Tobramycin (1.3%)</td>
<td>4,602 vials</td>
</tr>
<tr>
<td>Item Description</td>
<td>Quantity</td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Mitomycin (0.02%, 0.04%)</td>
<td>119 vials</td>
</tr>
<tr>
<td>Pilocarpine (0.125%, 0.5%, 0.25%, 1%)</td>
<td>87 vials</td>
</tr>
<tr>
<td>Polymixin B (20,000 μg, 30,000 μg/ml, 50,000 μg/ml)</td>
<td>225 vials</td>
</tr>
<tr>
<td>Vancomycin (5%)</td>
<td>3,057 vials</td>
</tr>
<tr>
<td>Timolol 0.25%</td>
<td>4 vials</td>
</tr>
<tr>
<td>Ceftazidine</td>
<td>47 vials</td>
</tr>
<tr>
<td>Bevacizumab/Avastin</td>
<td>5,367 vials</td>
</tr>
<tr>
<td>Interferon</td>
<td>167 vials</td>
</tr>
<tr>
<td>Voriconazole (1%)</td>
<td>573 vials</td>
</tr>
</tbody>
</table>

2. Dispensed than pharmacy RPC free of cost

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autologous Serum</td>
<td>208 vials</td>
</tr>
<tr>
<td>Artificial Tears</td>
<td>56,682 vials</td>
</tr>
<tr>
<td>Ciprofloxacin (0.3%)</td>
<td>8,557 vials</td>
</tr>
<tr>
<td>Corneal storage media (MK Media)</td>
<td>4,037 vials</td>
</tr>
<tr>
<td>Cyclosporine 2%, 1%</td>
<td>134 vials</td>
</tr>
<tr>
<td>EDTA (1.1%)</td>
<td>123 vials</td>
</tr>
<tr>
<td>Homatropine (2%)</td>
<td>14,000 vials</td>
</tr>
<tr>
<td>Hypertonic Saline (5%)</td>
<td>4,371 vials</td>
</tr>
<tr>
<td>Methyl Cellulose (2%)</td>
<td>77 L</td>
</tr>
<tr>
<td>Methyl Cellulose (2%)</td>
<td>1,099 vials</td>
</tr>
<tr>
<td>Pilocarpine (2%)</td>
<td>1,698 vials</td>
</tr>
<tr>
<td>Acetazolamide 30 mg, 10, 25, 40, 50, 60, 80 mg</td>
<td>1,699 pkt</td>
</tr>
<tr>
<td>Sodium Ascorbate (10%)</td>
<td>352 vials</td>
</tr>
<tr>
<td>Sodium Citrate (10%)</td>
<td>326 vials</td>
</tr>
<tr>
<td>Thimerosal Solution (0.005%)</td>
<td>90 L</td>
</tr>
<tr>
<td>Tropicamide (1%)</td>
<td>33,374 vials</td>
</tr>
<tr>
<td>Pipracillin</td>
<td>115</td>
</tr>
<tr>
<td>Tropic + Phenylepherine (0.5%+2.5%) (ROP)</td>
<td>9,487 vials</td>
</tr>
<tr>
<td>Gancyclovir vials100 mg</td>
<td>105</td>
</tr>
<tr>
<td>PHMB</td>
<td>168 vials</td>
</tr>
<tr>
<td>Meropenam 5 mg/ml</td>
<td>321 x 5 ml</td>
</tr>
<tr>
<td>Piloconulidine</td>
<td>8 vials</td>
</tr>
<tr>
<td>Atropine 0.01%</td>
<td>165 vials</td>
</tr>
<tr>
<td>Mycophenolate Diazoxide 10 mg, 12.5 mg</td>
<td>4 vials</td>
</tr>
<tr>
<td>Glycerin 20%</td>
<td>69</td>
</tr>
<tr>
<td>Olopatadin</td>
<td>1</td>
</tr>
<tr>
<td>Voriconazole 25 mg</td>
<td>6261</td>
</tr>
</tbody>
</table>

3. Kit items dispensed

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botox</td>
<td>307 ampoules</td>
</tr>
<tr>
<td>Ethylalcohol 20%</td>
<td>321 x 5 ml</td>
</tr>
<tr>
<td>Gold chloride</td>
<td>73</td>
</tr>
<tr>
<td>Hydrazin Hydrate</td>
<td>321 x 5 ml</td>
</tr>
<tr>
<td>Sod. Chloride 20% solution</td>
<td>25 ml x 2 vials</td>
</tr>
<tr>
<td>Tab. Citrizen 2.5 mg</td>
<td>4 sachets</td>
</tr>
<tr>
<td>Tab. A cyclover 1/8</td>
<td>16 sachets</td>
</tr>
<tr>
<td>Voriconazole 25 mg</td>
<td>63 sachets</td>
</tr>
<tr>
<td>Folicacid 0.5%</td>
<td>4 vials</td>
</tr>
<tr>
<td>Ethylalcohol 100%</td>
<td>5 ml x 1 vials</td>
</tr>
</tbody>
</table>
### Ocular Radiology

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of patients for X rays</td>
<td>8,496</td>
</tr>
<tr>
<td>Total number of patients for CTs</td>
<td>1,407</td>
</tr>
</tbody>
</table>

### Ocular Anaesthesia

<table>
<thead>
<tr>
<th>S. No.</th>
<th>G.A. Cases</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Routine + EUA</td>
<td>5,720</td>
</tr>
<tr>
<td>2.</td>
<td>Emergency</td>
<td>1,667</td>
</tr>
<tr>
<td>3.</td>
<td>Monitored Anaesthesia Care</td>
<td>485</td>
</tr>
<tr>
<td>4.</td>
<td>Dr R.P.C. CASUALTY-O.T.</td>
<td>3,137</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>11,009</strong></td>
</tr>
</tbody>
</table>

### National Eye Bank

<table>
<thead>
<tr>
<th>National Eye Bank (Neb):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Collection of Cornea</td>
<td>2,209</td>
</tr>
<tr>
<td>Total Utilization for Cornea Transplantation</td>
<td>1,439</td>
</tr>
<tr>
<td>Other Eye Bank (Oeb):</td>
<td></td>
</tr>
<tr>
<td>Total Collection of Cornea</td>
<td>99</td>
</tr>
<tr>
<td>Total Utilization for Cornea Transplantation</td>
<td>82</td>
</tr>
<tr>
<td>Total Number of Peoples Pledged for Eye Donation at Neb:</td>
<td></td>
</tr>
<tr>
<td>Total Number of People Pledged for Eye Donation</td>
<td>225</td>
</tr>
</tbody>
</table>

### Low vision Services:

A total number of 4,950 patients were presented to the low vision services for their clinical evaluation. Among 4,950, a total number of 3,060 patients were seen for low vision evaluation which required low vision devices. New patients enrolled under Low vision were 1,808 and 1,252 were follow ups.

1,890 number of patients were challenging cases referred from OPD/wardsclinics which could be improved with refraction, for clinical photograph, tear sample analysis.

Total Number of New Patients were: 3,155
Total Number of Follow Up patients were: 1,795

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total no. of Males</td>
<td>2,261</td>
</tr>
<tr>
<td>Total no. of Male Child</td>
<td>1,035</td>
</tr>
<tr>
<td>Total no. of Females</td>
<td>1,104</td>
</tr>
<tr>
<td>Total no. of Female Child</td>
<td>550</td>
</tr>
</tbody>
</table>
AWARDS, HONOURS AND SIGNIFICANT EVENTS

Unit I (Cataract, Refractive Surgery, Vitreoretina, Uvea and ROP)

Professor SK Khokhar was honored by MOS, UK for “Video based teaching of cataract surgical difficulties including the management of complications” in The Midland Ophthalmological Society Medical Education Department at Worcester, UK, which was held from 29 March to 2 April 2019.

Unit II (Vitreoretina, Uvea and ROP)

Professor Atul Kumar was Hon. Consultant Ophthalmology, Armed Forces Medical Services (December 2015-December 2018); Advisor Ophthalmology, Government of India, December 2015-2018; Member, Advisory Board, Current Indian Eye Research Journal of Ophthalmic Research Group; Co-Chairperson, Advisory Committee for the 13th Five Year Plan under National Programme for Control of Blindness (NPCB), Government of India; Member PMOA Duties Committee under NPCB, Government of India; AIIMS Committee Member for selection of Assistant Professor Ophthalmic Anaesthesia; Member Advisory Committee for National Blindness Survey and National Trachoma Survey, May 2016; Co-Chairman Treatment of Retinal Diseases in the country under committee for National Programme for Control of Blindness (NPCB); Awarded Dr BC Roy National Award for Excellence in Ophthalmic Sciences by the President of India; Director, WHO Collaborating Centre for Prevention of Blindness, IND-142; Co-Chairman in the Advisory Committee for the 13th Five-year Plan under National Programme for Control of Blindness (NPCB); Member of APS “Standing Selection Committee Meeting for Interview under APS” PGIMER, Chandigarh; Founder’s Day Oration on High Myopia related Retinal Pathologies at 11th Founders Day AEC—PGI, Chandigarh, 18 March 2017; Awarded “Golden Apple” Award at i-Focus CFS Dwarka, Delhi, 27 January 2018; Chairman: Retina Diagnostics Session at iFocuser PG Teaching Programme, New Delhi on 27 January 2018; Chairperson: Retina Capsule Session at AIOS Refresher Course, PGIMER, Chandigarh on 3 February 2018; Dr Subramaniam Oration Lecture delivered at 36th Annual Karnataka State Ophthalmic Conference 2018 at Bangalore on 3 November 2017; Invited External Examiner for MS (Ophthalmology) at “PGI” Chandigarh on 4 and 5 May 2018; Received Award of Fellowship Ad hominem of the Royal College of Surgeons of Edinburgh held at Edinburgh, UK on 20 April 2018; Chairperson: Managing retinal detachments and IOFB and managing infections and inflammation after trauma, Ocular Trauma Con 2018 Meeting, 12-15 July 2018, Chennai; Chairman of Session: Choroidal Neovascular Membrane: IPCV Management Protocol and When to refer to Vitreoretinal Specialists, CME: Retina Capsules for the Comprehensive Ophthalmologists, 12 August 2018, Chandigarh

Professor Mahesh Chandra: Evaluated thesis projects of other Universities.

Dr Parijat Chandra was Co-convener, Retina Grand Rounds, 69th Annual Conference of Delhi Ophthalmological Society, Delhi, 6-8 April 2018; Panelist, AntiVEGF in ROP, 3rd iROP Society meeting, Raipur, 21-22 July 2018; Panelist, 2nd Hyderabad Retina Society Meeting, Hyderabad, 5 August 2018; Chairman, Instruction Course: Retinopathy of Prematurity, 16th Annual Conference of Jharkhand Ophthalmic Society, Ranchi, 7-9 December 2018; Examiner, FAICO [Vitreoretina] Examination, Under Aegis of All India Ophthalmological Society, AIIMS, New Delhi, 17 December 2018; Evaluator, Free Papers (Paediatric), AIOS, Indore, 14-17 February 2019.

Unit III (Cornea and Refractive Surgery, Paediatric Cataract)

Professor Jeewan S Titiyal received AIOS International Heroes Award, 77th All India Ophthalmological Society Conference, February 2019, Indore, Madhya Pradesh, India; IJO Honor, 77th All India Ophthalmological Society Conference, February 2019, Indore, Madhya Pradesh, India; Best E Poster (First Prize) on cornea and refractive section, Correlation of corneal biomechanics and confocal microscopy with corneal thickness in myopes, PP3-06, Asia Pacific Association of Cataract and Refractive Surgeons (APACRS), July 2018, Chiang Mai, Thailand; Titiyal JS, Kaur M, Shaikh F, Management of difficult lenticule extraction in learning curve of SMILE 2018, Best of Show Award at American Academy of Ophthalmology, Chicago, USA, October 2018; Col. Henry “Jullundur” Smith Oration Award, Jalandhar Cataract and Refractive Club, August 2018, Jalandhar, Punjab; Maharshi Sushruta Oaration, Mahatama Gandhi University of Medical Sciences and Technology, January 2018, Jaipur, Rajasthan.

Unit IV (Glaucoma and Paediatric Cataract)

Professor Rohit Saxena was awarded AIIMS Excellence Award 2018 for the paper Incidence and Progression of Myopia and associated factors in urban school children in Delhi: The North India Myopia Study (NIM Study), PLoS One, 2017 December 18;12(12):e0189774.

Dr Dewang Angmo received Young Ophthalmologists Travel Grant in the World Glaucoma Congress 2019; Chaired and Delivered Successful Instruction Course in AIOS 2019 on Basics of Trabeculectomy.

Unit V (Squint, Neuro Ophthalmology, Paediatric Ophthalmology and Oculoplasty)

Professor Pradeep Sharma received the distinguished International Heroes of AIOS from All India Ophthalmological Society at Coimbatore 2018; Invited Keynote Guest Speaker for Indonesian Paediatric Ophthalmology and Strabismus Society, INAPOSS at Semarang, Indonesia, April 2018; Professor Pradeep Sharma’s Poster on DigiTAC selected for special presentation in the Poster Theater at the American Academy of Ophthalmology, AAO, Chicago, October 2018; Invited Guest Speaker for the International Paediatric Ophthalmology and Strabismus Symposium at Tilganga Eye Institute, Kathmandu, Nepal, October 2018; Installed as the President of Strabismus and Paediatric Ophthalmological Society of India, SPOSI December 2018; Awarded IS Roy Oration of Kolkata Academy of Ophthalmology, Kolkata, January 2019; Awarded Dr HK Tewari Golden Apple Award of iFOCUS, Hyderabad, January 2019.

Dr Swati Phuljhele Alok was awarded SNEC-ARC AIOS Fellowship in Neuro-Ophthalmology; Joint Organizing Secretary for Annual Conference of Indian Neuro-Ophthalmology Society; First prize for e-poster at Annual Conference of Indian Neuro-Ophthalmology Society, 2018; Phuljhele Aalok S, Saluja G, Nirajana B, Saxena R, Sharma P, “Correlation of Magnetic Resonance Imaging and Ocular examination findings in Patients of Hypoxic Ischemic Encephalopathy”; Appointed as Co-Chairperson, BSc Optometry; Appointed as an Internal Examiner for BSc Optometry Phase III; Moderator for Advances in Neuro-Ophthalmology, 1st Annual Conference of Indian Neuro-Ophthalmology Society, 30 September 2018; Invited faculty for Silver Jubilee CME on Paediatric Ophthalmology and Strabismus of I Care Hospital, 19 August 2018, New Delhi; Invited as Faculty for AIOS ARC-ICO Teachers in Ophthalmology Apex Conclave, 77th Annual Conference of All India Ophthalmology Society 2018, 13-17 February 2019 at Indore; Panelist for Neuro-Ophthalmology (INOS) session at 77th Annual Conference of All India Ophthalmology Society 2018, 13-17 February 2019 at Indore.

Unit VI (Cornea, Squint and Neuro-Ophthalmology)

Professor Radhika Tandon was President of EBAI conferred by EBAI; Vice President of Association of Eye Banks of Asia; Member of NOTTO conferred by NOTTO; Appointed as Chairperson, Eye Leadership Summits supported by WHO, 7 September 2018; Advisory Member for the Global Alliance of Eye Bank Associations (GAEBA); Appointed as Chairperson of the Committee for Standard Treatment Workflows (STWs) conferred by ICMR; Invited to participate in the framing of Barcelona principles for Ethical Practices in Usage of donated tissue released in collaboration with Global Alliance of Eye Bank Associations and WHO; Appointed as Member of the Advisory Committee for National Programme for Control of Blindness and Visual Impairment (NPCB&VI), Ministry of Health and Family Welfare, Government of India; Appointed as an Expert for Project Review Committee (PRC) conferred by ICMR; Nominated as a Member of the Editorial Board of the Indian Journal of Medical Research (IJMR) from July 2018; Nominated as Member of DBT Bioengineering Task Force, Department of Biotechnology, Ministry of Science and Technology, Government of India; Nominated as a Member of the Editorial Board of the Indian Journal of Medical Research (IJMR) from July 2018 [Ref. No. IJMR/EB/2017-18/194 dated 4 July 2018]; Appointed as an External Expert for Standing Selection Committee Meeting of AIIMS, Jodhpur, on 22 December 2018; Appointed as an External Expert for Standing Selection Committee Meeting of AIIMS, Gorakhpur, on 7 February 2019 in SGPGIMS, Lucknow.


Dr Noopur Gupta was invited by WHO Headquarters, Geneva as WHO Global Trachoma Expert for developing recommendations for global elimination of trachoma; Nominated as Expert for Project Review Committee Meeting conferred by ICMR; Invited as Expert for Developing Standard Treatment Workflows for Ophthalmology under Government of India; Appointed as Expert for the Central Task Force at national level for policy planning and strategy for implementation for elimination of Trachoma from the country by the year 2020 by the MoH&FW; Appointed as WHO Regional Expert for South-East Asia (SEARO) on Prevention of Blindness and promoting eye health and represented India at the Regional Group Consultation-accelerating actions for Prevention of Blindness; As resource faculty and National WHO expert for NPCB-WHO SEARO Expert Group Meeting on Development of National Action Plan for achieving Universal Eye Health in India; Trainer and resource faculty for DALK (lamellar keratoplasty) and DSAEK (endothelial keratoplasty) Workshop as part of Surgeon Training Initiative in EBAI, Pune in September 2018; As Expert Ophthalmologist and trainer for optometrists and ophthalmologists at Goa and Banda for supervision and monitoring of National Blindness Survey, 2015-2019 under NPCB, MoH&FW, Government of India in May 2018 and January 2019, at the 52nd RP Centre Foundation Day, 2019.

Ocular Microbiology

Professor Gita Satpathy was made a Scientific Advisory Group Member for the Epidemiology and Communicable Diseases Division of ICMR.
Dr Nishat Hussain Ahmed was awarded third prize in poster presentation titled ‘Establishment of Multiplex PCR for Detection of Herpes Simplex Viruses Type-1 and Type-2, Cytomegalovirus, Varicella-Zoster Virus and Adenovirus in Ocular Viral Infections’ in National Conference of the Clinical Infectious Diseases Society, 2018, held at Christian Medical College, Vellore, Tamil Nadu.

Professor Praveen Vashist was invited by WHO for review of WHO World Vision Report; Nominated by WHO as member of the committee of the Nepal trachoma elimination Dossier Review Group to recommend the validation of trachoma elimination in Nepal; Nominated as member Secretary of National Trachoma Task Force and National Trachoma Monitoring Committee by Government of India, Submitted Trachoma Modules for elimination of trachoma in India and survey proposal for “Trachoma only survey” to Ministry of Health and Family Welfare, Government of India; Appointed Chairperson for the Scientific Committee of Vision 2020 Right to Sight India for the period 2018-2019; Invited by Lok Sabha TV as an expert panellist for Eye Care in the programme “Swasth Bharat” on 1 June 2018; Chaired session on “School Screening and Refractive Error” and “HMIS Challenges and Recommendations” in Annual Conference of Vision 2020 India at Sri Sankaradeva Nethralaya, Guwahati on 8-10 June 2018; Invited as member of Technical Appraisal Committee Meeting held on 3 July 2018 at DHR, Red Cross, New Delhi to evaluate the activities relating to Health Technology Assessment in India; Invited in the stakeholders consultative meeting for the outcome study on the Health Technology Assessment of Intra Ocular Lenses for Cataract Surgery at DHR on 20 July 2018; Invited as an expert by Sightsavers to discuss clinical quality assurance for Sightsavers partner hospitals on 18 July 2018; Also invited by Sightsavers as an expert for mentoring support to Ophthalmology Units of district for service quality enhancement on 21 August at Ranchi; Awarded Dr Parmar Memorial Oration 2018 by ACOIN on 28 July 2018 at Gurgaon, Haryana; Chaired the session of “Equity and Universal Eye Health” in 25th ISGEO Meeting held on 11-12 September 2018 at Hyderabad; Resource person for development of guidelines on Primary Eye Care through Health and Wellness Centres under NHSRC, Government of India; Presented report for the National Blindness and Visual Impairment Survey 0-49 years in India to Joint Secretary, MoH&FW, New Delhi on 6 March 2019; Presented report for the Epidemiological Study of Avoidable Blindness in India (2015-2018) to Joint Secretary, MoH&FW, New Delhi on 9 December 2018; Awarded project by NPCB&VI for developing a Vision Atlas on National Blindness Survey on 30 March 2019; Appointed member of NPCB&VI committee to provide technical assistance in developing benchmarks for States/UTs wise cataract burden and designing protocol for evaluation process for verification cataract free claims of states/districts for awards and incentivization under NPCB&VI; Nominated by Chief to represent RP Centre in the NPCB&VI Advisory Committee Meeting to review existing scheme and future plan for implementation of NPCB&VI on 9 October 2018 at MoH&FW, Nirman Bhawan; Nodal officer for RP Centre for the Hindi Rajbhasha Committee, Prepared RPC calendar as part of committee recommendations; Nominated as member of Intramural Project Review Committee (Clinical Science) by research section, AIIMS; Nominated by Chief as Nodal Officer for RP Centre Annual Report for submission to Director AIIMS.

Dr Senjam Suraj Singh was recipient of Commonwealth Eye Health Consortium UK Scholarship, for MSc Public Health for Eye Care, 2017-2018; Awarded Master’s Degree in public health for Eye Care on 5 March in London School of Hygiene and Tropical Medicine (LSHTM); Chaired a session and presented lecture on “New disability guidelines for visual impaired in India” in the AIIMS Optometry Explorer 2019 held on 19 and 20 January 2019; Organizing Secretary, CBM—1st National Workshop Strengthening Low Vision and Rehabilitation Services, 29 November 2018, Dr RP Centre, AIIMS; Organizing Secretary, CBM—2nd National Workshop Strengthening Low Vision and Rehabilitation Services, 29 January 2019, Dr RP Centre, AIIMS.

Dr Vivek Gupta was Organizing Secretary, 52nd RPC Foundation Day Congress 2019; Organizing Secretary, ACOIN-RPC Workshop 2018; Developed an Online Training Platform for Distance Training of Coders in Verbal Autopsy under the MINErVA project: www.causeofdeathindia.com; Assisting Faculty, Computer Facility, AIIMS, New Delhi; Member Secretary, Technical Specifications Committee, Computer Facility, AIIMS, New Delhi; Member, Committee for redevelopment and expansion of campuses of AIIMS, New Delhi; Member of “Central Task Force at national level for policy planning and strategy Implementation for elimination of Trachoma from the country by the year 2020” set up by Ministry of Health and family Welfare, Government of India; Member of “Monitoring Committee for monitoring and reporting of Trachoma cases in states for elimination of Trachoma from the country by the year 2020” set up by Ministry of Health and Family Welfare, Government of India; Member of the NPCB&VI “Group to prepare action plan for forming a sound IT platform for transparent monitoring of the field level performance and payments to NGOS through NPCB&VI MIS”.

Ocular Biochemistry

Professor Jasbir Kaur was examiner, PhD, Postgraduate Institute of Medical Education and Research, Chandigarh; Reviewed research project under Indo-US Programme, Department of Biotechnology, Ministry of Science and Technology, Government of India; Associate Editor, Global Journal of Immunology and Allergic Diseases; Editorial Board Member: Journal
Ocular Pharmacology

Professor T. Valpandian received 2 Best Oral Presentation Award at 64th Annual Meeting of Association of Physiologists and Pharmacologists of India (APPI), APPICON at Manipal, during 27 November-1 December 2018 at Kasturba Medical College, Manipal, India; Received BIG GRANT (BIRAC) for the project entitled “Development and validation of TransRecon Technique for sterile pharmaceutical preparation”.

Ocular Radiology

Professor Sanjay Sharma was Editorial Board Member JCIR: Uro-Radiology Section; Consulting Editor (Radiology), Indian J Urology; External expert for ICMR, for assessing Extra Mural Funded Project June 2018.

Hospital Administration

Professor Shakti Kumar Gupta was honored with Capital Foundation National Award in September 2018 by Governor of Assam for tremendous contribution to the field of Health Care Administration; Awarded with Times Healthcare Achievers Award, 2018 by Times of India in honor of excellence in Healthcare; Member for the Selection Committee Meeting for the master plant for AIIMS, Jammu at MoHFW, New Delhi on 22 January 2019; Member of the expert committee for setting of a Psychiatric and Mental Hospital at Juba, South Sudan from 2 to 5 November 2018; Member of National Executive Committee of Hemovigilance Programme of India at National Institute of Biological, Noida on 18 September 2018; Jury Member for the evaluation of prospective incumbates to the Medivalley and Biovalley incubation parks at Vishakhapatnam on 11 September 2018; Expert for the panel selection committee for recruitment of Faculty in the Department of Hospital Administration at AIIMS, Bhopal on 6 September 2018; Honored with Chairman position for FICCI Taskforce Chair for Costing of Select Medical Procedures and to share the outcome of AIIMS studies on costing with FICCI; Member of the Board of Directors for International Association for Applied Management (IAAM), USA, 2018; Expert for the selection of candidates for the promotion/selection in the speciality of Hospital Administration on 1 August 2017 at Soura, Srinagar, Jammu and Kashmir; Honorary Consultant for National Mineral Development Corporation Limited for establishing 200 Bedded Multi Specialty Hospital, New Nagarnar, Jagdalpur, Chhattisgarh; Programme Director for 3rd Lean Six Sigma Green Belt International Programme in Healthcare, New Delhi from 22 to 24 June 2018; Expert member for the standing selection committee for selection of “Faculty post” of NEIGRIHMS in the Department of Hospital Administration on 2 May 2018 at AIIMS, New Delhi; Attended Grand Finale of Healers of India Awards on 19 April 2018; Invited to “CME on Future of Healthcare Gen. Next” as Guest of Honor for inauguration of “Indo US Academy of Health and Hospital Administration” at Hyderabad on 15 April 2018; Attended the Symposium on Pharmacologists in Indian Healthcare System, Director’s Board Room, AIIMS, New Delhi on 15 April 2018; Attended CII Regional Lifesciences Summit 2018 at India Habitat Centre, New Delhi on 13 April 2018; Expert member of the Task Force in Healthcare at FICCI, New Delhi on 12 April 2018; Invited as an expert member for the selection committee for Casual Medical Officers at Institute of Liver and Biliary Sciences, Vasant Kung, New Delhi on 9 April 2018; Honorary Board Member of the Patient Safety and Access Initiative of India Foundation.

VISITING SCIENTIST

1. Foreign Guest Faculty, Professor Christopher Liu OBE from UK visited on 16 November 2018
2. Foreign Guest Faculty, Professor James Chodosh, Professor Harvard Medical School visited on 28 January 2019
3. Dr Rainer Brockhaus, Chief Executive Officer (CEO) of CBM Germany was the chief guest of Inauguration Ceremony of Visual Rehabilitation and Training Centre at Community Ophthalmology, 7th Floor, Dr RP Centre, AIIMS on 12 February 2019
4. Professor Sarah Coupland, George Holt Chair of Pathology, Director of the NWCR Cancer Research Centre, Institute of Translational Medicine, University of Liverpool, UK presented guest lecture entitled “An update on Ocular Melanomas and Lymphomas” on 20 November 2018.
HIGHLIGHTS

Jai Prakash Narayan Apex Trauma Centre, AIIMS continues to provide holistic care to the victims of trauma. It continues to be flag bearer in quality patient care services, research, teaching and training. Trauma center constitutes dedicated team of doctors, paramedics and other supporting staff whose prime motto is to achieve excellence and develop novel ideas and techniques in field of trauma managements.
A total of 77,139 patients visited casualty in year 2018-2019, an increase of 1951 over the previous year. Among these, 7,080 patients were admitted; an increase of 170 over the previous year and 8,672 surgical intervention were performed. A total of 51,660 patients attended follow up clinic/OPD, an increase of 3,003 patients over last year.

The emergency department of the center has been designated as the WHO collaborating centre in Emergency and Trauma for the South East Asian region in January 2019.

Faculty members and residents are involved in various research projects. Over 200 research papers have been published in national and international journals an increase of 13 reasearch papers over last year. The first batch of Mch (Trauma Surgery and Critical Care) successfully passed out in the year 2018. The JPNA Trauma Center is leading a multi-centric project on building capacities for Infection Control, Surveillance of HAIs and AMR, funded as a cooperative agreement by the CDC. A total of 36 hospitals, representing more than 120 ICUs are a part of this surveillance network. This is also a novel initiative to integrate the National Kaya Kalp Programme and the existing HAI surveillance framework.

EDUCATION

CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered

Rajesh Malhotra: For details, see 9.25 Orthopaedics

Abhinav Kumar

1. Varicose veins: Recent advances in management regional refresher course, ASI, 6-8 July 2018, Patna
2. Role of bystander in road traffic injuries mega event by IRSC, 30 October 2018, DTU, New Delhi

Adrash Kumar

1. Latest trends in forensic medicine, IPS Induction Training Course, 4 April 2018, SVP National Police Academy, Hyderabad, Telangana
2. Emerging trends and technologies in forensic toxicology TOXOCON-12, 12th Annual Conference of Indian Society of Toxicology, 6-7 April 2018, Sikkim Manipal Institute of Medical Sciences, Gangtok, Sikkim
3. Defensive medicine as a plea of defense—How far justified mid term CME jointly organized by Department of Medicine and Forensic Medicine with Punjab Academy of Forensic Medicine and Toxicology, 12 May 2018, Punjab Institute of Medical Sciences, Jalandhar, Punjab
4. Latest trends in forensic medicine IPS induction training course, 28-29 August 2018, SVP National Police Academy, Hyderabad, Telangana
5. Legal aspects to be dealt by Medical Officers CME speaker for CHS Medical Officers, 19 September 2018, National Institute of Health and Family Welfare, Munrika, New Delhi
6. Forensic consultative forum meeting humanitarian forensics on dignified management of the dead including forensic human identification in India, 25-26 September 2018, Gujarat Forensic Science University, Gandhinagar, Gujarat
7. Legal aspects of medical records: Challenges and solutions national CME jointly organized by Medicolegal Society of Assam and IJHRMLP, 9 October 2018, Department of FMT, Tejpur Medical College, Tejpur, Assam
8. Human rights violation issues and crime against women in Indian perspective CME on “Crime Against Females: Problems and Solutions”, 12 October 2018, Department of FMT, Subharti Medical College, Meerut, UP
10. Custodial death investigation—NHRC Experience, 15th Annual Conference of South India Medicolegal Association, 30 November-2 December 2018, Government Medical College, Thiruvananthapuram, Kerala
11. Forensic toxicology in India—Present scenario, 40th Annual National Conference of Indian Academy of Forensic Medicine, “FORENSIC MEDICON-2019”, 1-2 February 2019, SN Medical College, Jodhpur, Rajasthan

Amit Gupta

1. Initial Management of a Multiply Injured Patient, 26th NTPC Medical Professional Conference, 7-8 April 2018, Bongaigaon, Guwahati
2. Road Traffic Injuries—Prevention is better than cure safe riding initiative, 12-13 April 2018, CRRI, New Delhi
3. Session on Trauma Care, 29th Road Safety Week: Conclave with Corporates on Road Safety, 26 April 2018, Pravasi Bharatiya Kendra, Chanakyapuri
5. Post-crash care in session on public health, Sustainability and Road Casualty Reduction CII Conference on Road Safety—Safer Journey for All, 27 June 2018, India Habitat Centre, New Delhi, India
6. How various organs gets effected during accident, first aid and trauma care Meeting of Institute heads of IDTR’s, 24 August 2018, Gurgaon
7. Planning for Emergency Department, Mass Gathering Care and Mass Fatality Management Training course on Hospital Preparedness for Health Emergencies for Senior Hospital Administrators, 29 August 2018, NIHFW, New Delhi
8. Planning of Disaster Risk Communication Training course on Hospital Preparedness for Health Emergencies for Senior Hospital Administrators, 29 August 2018, NIHFW, New Delhi
9. Panel Discussion on “Trauma Care for Accident Victims” Fast Tracking Road Safety, 1 September 2018, PHD House, Opp. Asian Games Village, New Delhi
10. Chair and Moderator: WTC Session on Geriatric Trauma and Outcomes, 77th Annual Conference of the American Association for the Surgery of Trauma and Clinical Congress of Acute Care Surgery and 4th World Trauma Congress, 25-29 September 2018, San Diego, CA, USA
11. Planning for Emergency Department, Mass Gathering Care and Mass Fatality Management Orientation Workshop of Partner Institutions for Senior Hospital Administrators on Hospital Preparedness in Health Emergencies, 24 October 2018, NIHFW, New Delhi
12. Planning of Disaster Risk Communication Orientation Workshop of Partner Institutions for Senior Hospital Administrators on Hospital Preparedness in Health Emergencies, 24 October 2018, NIHFW, New Delhi
13. Injury Surveillance and Trauma Registry through the Integrated Health Information, Platform Road Safety Legislation and Multisectoral Action, 13 December 2018, New Delhi
14. First aid care, Trauma Care Centre and Emergency related to Road Safety Certification Course on Road Safety Audit and Associated Road Safety Related Aspects, 22 December 2018, CSIR-CRRI, New Delhi
15. Basic concepts and principles of Incident Response System Training Programme on District Preparedness for Public Health Emergencies Management for District Health Officers at NIHFW, 9 January 2019, NIHFW, New Delhi
16. Coordination mechanism under the incident Response System Training Programme on District Preparedness for Public Health Emergencies Management for District Health Officers at NIHFW, 9 January 2019, NIHFW, New Delhi
17. Planning for Emergency Department and Mass Gathering Care and Hospital Internal Evacuation Plan during Disasters Orientation Workshop of Partner Institution for District Health Officers at NIHFW, 6-8 February 2019, NIHFW, New Delhi
18. Planning of Logistic Systems for Hospital in Public Health Emergencies and Capacity Building and Training systems in Hospital Orientation Workshop of Partner Institution for District Health Officers at NIHFW, 6-8 February 2019, NIHFW, New Delhi
19. Trauma Care Initiatives in India to save lives of road accident victims—Challenges in the nationwide implementation, 30th National Road Safety Week 2019: Conference on Trauma Care—A National Mission, 8 February 2019, India Habitat Centre, Lodi Road, New Delhi
20. Post Accident Trauma Care, 30th Road Safety Week: Seminar on Road Safety, 12 February 2019, Ranchi, Jharkhand
21. Planning and Management of Accident and Trauma Service Training Programme on District Preparedness for Public Health Emergencies Management for District Health Officers at NIHFW, 14 February 2019, NIHFW, New Delhi
22. Importance of Post-Crash Care in Road Safety Training Course of IPS Officers in Traffic Management, 30 March 2019, College of Traffic Management, Faridabad
23. Faculty for Session and Skills stations on Management of Paediatric and Adult Airway in Trauma Skill based Trauma Care Workshop 2018, 25 February-2 March 2019, BCPS Skills Lab, Mohakhali, Dhaka, Bangladesh
Ashish Bindra

1. Trigeminal Neuralgia, Chronic Interventional Pain Management Course, Cadaveric Training and Research Facility, 13 October 2018, JPNATC, AIIMS, New Delhi
2. Laryngoscopy, Cadaveric Airway Management Course, Cadaveric Training and Research Facility, 23 October 2019, JPNATC, AIIMS, New Delhi
4. Panel on Post Traumatic Epilepsy, Medanta Neurocritical Care Conference, 2 October 2019, New Delhi
5. Latest modalities in treatment of Trigeminal Neuralgia, International Conference of Pain, 28 October 2019, Jodhpur
8. Management of Status Epilepticus, “Acute Neuro Care”, Artemis Hospital, 14 February 2019, Gurugram
11. Hypothermia ISNACC Webinar Classroom, 7 October 2019, Broadcasted on Youtube through Google Hangout
12. Anaesthesia in Intraoperative MRI suit ISNACC Webinar Classroom, 23 December 2019, Broadcasted on Youtube through Google Hangout

Atin Kumar For details, see 9.36 Radiodiagnosis

Babita Gupta For details, see 9.1 Anaesthesiology

Biplab Mishra

1. Managing the agitated patient National CME on Consultation-Liaison Psychiatry, 9 April 2018, AIIMS, New Delhi
2. Mass Casualty Management and Hospital Disaster Management Plan “Emergency Medical Response and Psychosocial Care in Disaster Situation” Organized by Haryana Institute of Public Administration (HIPA), 12 April 2018, JPNATC, AIIMS, New Delhi
3. Isafe—The Safer India Challenge, 2017-2018 Indian Road Safety Campaign (IRSC), 22 April 2018, IIT, Delhi
4. Initial Assessment of A Trauma Victim ICSIS-NZCON 2018, 12-13 May 2018, Agra, UP
5. X-ray Identification of Thoracic Trauma, Advanced Trauma Life Support Instructor Course, 24-25 May 2018, JIPMER, Pondicherry
7. How Can Youth Contribute to Changing the Scenario of Road-Safety India, I-SAFE’17: The Safer India Challenge, 19 August 2018, IIT, Delhi
8. Reproductive Health in Disasters Training Programme on Gender and Disaster Management, 27-31 August 2018, NIDM
9. Post-Crash Management High Level Conference on Road Safety, 28-29 August 2018, Gurugram, Haryana
12. Panel Discussion Role of Youth in Road Safety, Cum Launch of I-SAFE’18: The Safer India Challenge Ministry of Road Transport and Highways, Indian Road Safety Campaign, 9 September 2018, IIT, Delhi
14. A Brief On Sustainable Goal #3 – Good Health And Well Being GGJ Delhi 2.0, 21 September 2018, Delhi
15. Role of Bystander in Road Traffic Injuries Mega Event by IRSC, 30 October 2018, DTU, Delhi
16. Wound Care Nursing Programme Launch of on Job Enrichment Programme (OJEP) for Nurses, 27 November 2018, JPNATC, AIIMS, New Delhi
17. Disaster Planning in India Regional Health Emergencies in Large Populations Course, 3-14 December 2018, International Institute of Health Management Research (IIHMR), New Delhi
18. Role of Youth and Technology to Promote Multi-Sectoral Action in Road Safety Morth in Support with IRSC and NSS, 9 February 2019, IIT, Delhi

Chhavi Sawhney

1. Donor screening and management, In house training of nurses on deceased organs and tissue donation, AIIMS, New Delhi
2. Trauma Care Systems in India, PGIMER, AIIMS, RMLH, Resuscitation in Trauma and Preoperative Care, 29 March 2017, PGIMER, Chandigarh
3. Maintainence of brain dead potential organ donor, 16th Annual Delhi Critical Care Symposium, 19 August 2018, Gurugram

Deepak Kumar Gupta

1. Current status of organ donation in India and care of Brain Dead Autc 2018, October 2018, New Delhi
2. Is their a doctor in flight, Antc 2018, October 2018, New Delhi
4. First successful craniopagus twin separation surgery of India, Annual Conf API Association, Kakinada

Dinesh Kumar Bagaria

2. Organized following Trauma First Responder workshops for commoner in collaboration with IRSC (Indian Road Safety Campaign, IIT, New Delhi)
4. Faculty and Moderator, iSAFE Mega event, 30 October 2018, Delhi Technical University
5. Faculty, AIIMS—MAWE course, 18 September 2018
6. Faculty, AIIMS—MAWE course, 15 December 2018
7. Faculty, AIIMS—MAWE course, 29 January 2019
8. Faculty, AIIMS—MAWE course, 21 February 2019
9. Trauma Care expert, 3rd World Sustainable Development Summit on Road Safety Policies, New Delhi, 11-13 February 2019
10. Faculty, AIIMS Trauma Assessment and Management course, Badshah Khan Civil Hospital, Faridabad, 22 November 2019
11. Participated in Endosurg 2019 as chairperson for live operative workshops and for free paper session (28-31 March 2019)

Garima Kachhawa For details, see 9.24 Obstetrics and Gynaecology

Gyaninder Pal Singh

1. Anaesthesia in Intraoperative Neurophysiological Monitoring IONM 2018, 4 May 2018, Max Super Speciality Hospital, Sachet, New Delhi
4. Child for Hydrocephalus for VP Shunt, AIIMS Anaesthesiology Post-Graduate Assembly, 18-21 October 2018, AIIMS, New Delhi
5. Airway, Breathing and Sedation in Neurocritical Care Patient Acute Neurological Care, 13-14 February 2019, Artemis Hospital, Gurugram
7. Disorders of Osmolality in ICU, Update on Fluid, Electrolyte and Acid Base Disorders, 16-17 March 2019, AIIMS, New Delhi

Kamran Farooque
1. MIS Fixation of Thoraco Lumbar Fractures, 20th Asia Pacific Orthopaedic Association Congress, 14 April 2018, Antalya, Turkey
2. Tips and Tricks in Thoraco Lumbar Fractures, DOA Advanced Spine Symposium, 13 May 2018, Indian Spinal Injuries Center, New Delhi
3. Case Presentation on Thoraco Lumbar Trauma ‘MIDCON- 2018’, Delhi Orthopaedic Association, 8 July 2018, New Delhi
4. Orthotics, Prosthetics and Role of Traction in Spine ICS 2018, Association of Spine Surgeon of India, 10 August 2018, Amritsar
5. Faculty for Panel Discussion ‘Miscellaneous Topics In Spine’ ICS-2018, Association of Spine Surgeon of India, 10 August 2018, Amritsar
8. New Fixation Modalities in Intertrochanteric Fractures Geriatric Trauma Care Symposium-In GOSICON-FFN-CCA-Conference, 6 September 2018, AIIMS, New Delhi
9. Panel Discussion, Optimizing Perioperative Outcome in Spine Surgery in Elderly, Geriatric Trauma Care Symposium-In GOSICON-FFN-CCA-Conference, 8 September 2018, AIIMS, New Delhi
12. ACL Graft Preparation DOACON 2018, 23 November 2018, AIIMS, New Delhi
13. All Posterior Corpectomy for Burst Fractures, 70th Annual Congress of the Egyptian Orthopaedic Association, 12 December 2018, Cairo, Egypt
14. Treatment Options for Thoraco Lumbar Burst Fractures, 70th Annual Congress of the Egyptian Orthopaedic Association, 12 December 2018, Cairo, Egypt
15. Neglected Cervical Dislocation with Intact Neurology—Which Approach, 70th Annual Congress of the Egyptian Orthopaedic Association, 12 December 2018, Cairo, Egypt

Keshav Goyal
1. Awake Craniotomy, Nuggets for Newbies Neuroanesthesiology and Neurocritical Care Update 2018, 18-19 August 2018, SGPGI Lucknow, UP
5. Prognostic value of serially estimated serum procalcitonin levels in traumatic brain injury patients with or without extra cranial injury—A longitudinal observational study, 16th Annual Meeting of Neurocritical Care Society (NCS), “Neurocritical Care without Borders, 25-28 September 2018, Florid, USA
6. Facet Joint Block: Considerations and tips, 3rd Cadaveric Pain Workshop, 13 October 2018, JPNATC, AIIMS, New Delhi
7. Anaesthesia for craniotomy for aneurism surgery and brain tumor, AIIMS Anaesthesiology Post-Graduate Assembly 2018 (APGA18), 18-21 October 2018, JLN Auditorium, AIIMS, New Delhi
8. Chin Chest Deformity (Case Discussion), AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, JLN Auditorium, AIIMS, New Delhi
10. Advances in Multimodality Neuromonitoring, Third Conference of Nepalese Society of Critical Care Medicine (NSCCM), 16-17 November 2018, Convention Centre, Kathmandu, Nepal
11. Recent Trial in Critical Care—Panelist Third Conference of Nepalese Society of Critical Care Medicine (NSCCM), 16-17 November 2018, In Convention Centre, Kathmandu, Nepal
12. Intracranial Hypertensive ENLS in 3rd Conference of Nepalese Society of Critical Care Medicine (NSCCMCON 2018), 18 November 2018 Conference Hall (2nd Floor), Norvic International Hospital, Kathmandu, Nepal
13. Traumatic Brain Injury ENLS in 3rd Conference of Nepalese Society of Critical Care Medicine (NSCCMCON 2018), 18 November 2018, Conference Hall (2nd Floor), Norvic International Hospital, Kathmandu, Nepal
14. Sodium and Fluid Management in Surgical ICU Patients, 1st Acute Critical Care Course (ACCC) for Interns, 8-9 December 2018, SET Facility, AIIMS, New Delhi
15. Traumatic Brain Injury: Acute Emergency Management Course, Director and Coordinator Acute Neuro Care (ANC), 13-14 February 2019, Auditorium, Artemis Hospital, Gurugram, Haryana

Narender Choudhary

Navdeep Sokhal
2. Stellate Ganglion Block, Cadaveric Pain Conference, 13 October 2018, JPNATC, New Delhi
3. Sepsis—What is New, AIIMS Neuroanaesthesia Update, 4 November 2018, AIIMS, New Delhi
4. Respiration—Applied Physiology, AIIMS Critical Care Course for Interns, 8 December 2018, AIIMS, New Delhi
5. Meningitis and Encephalitis Acute Neuro Care, 14 February 2109, Artemis Hospital, Gurugram
7. Trigeminal Ganglion Block, Cadaveric Pain Conference, 13 October 2018, JPNATC, New Delhi
8. Thoracostomy and Thoracocentesis, AIIMS Critical Care Course for the Interns, 8 December 2018, AIIMS, New Delhi
9. Meningitis and Encephalitis, Acute Neuro Care, 14 February 2109, Artemis Hospital, Gurugram

Neeraj Kumar
1. Vascular Access, AIIMS—EMSONO, 11 August 2017, JPNATC, AIIMS, New Delhi
3. Ultrasound as an aid to airway, Cadaver airway workshop, 23 September 2018, JPNATC, AIIMS, New Delhi
4. Caudal Block, Interventional pain management workshop, 13 September 2019, JPNATC, AIIMS, New Delhi
5. Workshop for Technologist, AIIMS Neuroanaesthesia Update 2018, 4 November 2018, AIIMS, New Delhi
6. Point of care ultrasound, ACCC, AIIMS, 8-9 December 2018, AIIMS, New Delhi
7. Traumatic Spine Injury (TSI) and USG in Neurological Emergencies ANC (ISNACC), 13-17 February 2019, Gurugram
8. Role of Technologists in Cervical Spine Injury Management (Moderator) NCOTT, 2 December 2018, AIIMS, New Delhi

Pankaj Singh
2. Evolution in management of hangmans fracture, 8 AIIMS complex spine live operative workshop, 5-6 May 2018, AIIMS, Delhi
3. Long term outcome of pediatric vertebral hemangiomas treated surgically, Brain Spine 186th, 7 November, Maldives National University, Male
4. Evolution in management of hangmans fracture, APCSS 2018, 15-17 November, Delhi
5. Evolution in management of Paediatric hangmans fracture INDSPNCON, 15-17 February 2019, AIIMS, New Delhi

Pratyusha Priyadarshini

Purva Mathur
1. Paediatric Sepsis—Implementation of CLABSI Bundle in NICU and PICU, Paediatric Sepsis Cause to Treatment Paediatric Sepsis Conference, Chacha Nehru Bal Chikitsalya, 4 May 2018, New Delhi
2. HISI Educational and Awareness Initiative, 19 May 2018, New Delhi
3. Consensus Building “Preventing Intravascular Device Related Infections”, HISI, Delhi NCR Chapter, 7 July 2018, New Delhi
5. Essentials of Infection Control MICROCON 2018, 28 November 2018, Bengaluru
6. Dr Ajita Mehta Oration Lecture on “Surveillance of HAI” IDCC, 17 September 2018, Hinduja Hospital, Mumbai
7. Candida Infections in ICU: Scenario in India and Asia ESCMID, Postgraduate Education Course Antifungal Resistance in Candida and Aspergillus: From Clinic to Clinical Laboratory, 19 September, VP Chest Institute, Delhi
8. Antimicrobial Resistance (AMR) and Its Implications in Antibiotic Policy in Severe Head Injury Undergoing DC 5, ANTC, 26 October 2018, AIIMS, New Delhi
9. HAI Surveillance and Preventing Spread of AMR Pathogens in Healthcare Settings MICROCON 2018, 28 November 2018, Bengaluru

Richa Aggarwal
1. Airway management acute critical care course, 11 August 2018, Maulana Azad Medical College, New Delhi
2. Airway skill station acute critical care course, 11 August 2018, Maulana Azad Medical College, New Delhi
3. Initial management in Advanced trauma life support, AIIMS, Anaesthesiology Post-Graduate Assembly 2018 (APGA18), 21 October 2018, AIIMS, New Delhi
4. Surgical site infection [as chairperson], Intensive Care—Clinical Microbiology and Infectious Disease Certification Course, Annual DCCS, 19 August 2018, Gurgaon
5. Recruitment Manouvers in ARDS-Controversies Chairperson Scientific Meeting [CME], Organized by Society of Critical Care Medicine, 17 September 2018, Gurgaon
6. Donor Screening and Maintenance Training Programme of MSc Nursing Student, 18 January 2019, CMET, AIIMS, New Delhi
7. Airway management ANLS course, Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care, 13 February 2019, Gurgaon
8. Initial assessment of the sick patient acute critical care course, 8 December 2018, SET facility, AIIMS, New Delhi
9. Renal dysfunction in surgical patient acute critical care course, 8 December 2018, SET facility, AIIMS, New Delhi
10. Approach to a surgical patient with altered sensorium acute critical care course, 9 December 2018, SET facility, AIIMS, New Delhi
11. Airway skill station acute critical care course, 8 December 2018, SET facility, AIIMS, New Delhi

Samarth Mittal
1. Role of new implant options in periprosthetic fractures, 24th Annual Conference of Punjab Orthopaedic Association (POACON), 10 November 2018, Chandigarh
2. Intertrochanteric fractures, Treatment options and outcomes AO Trauma Course—Advanced Principles of Fracture, 3 August 2018, Chandigarh
3. Intertrochanteric fractures, AO Trauma Course—Basic Principles of Fracture Management, 15 March 2019, Kochi
4. Case presentation using TFNA, 9th AO Trauma India National Conference, 19 April 2019, Chandigarh
5. Case presentation—Intertrochanteric Fractures Meet the Masters Depuy Course, 25 November 2018, New Delhi
6. KL approach with flip Cadaveric workshop on Pelvi acetabular fractures as part of DOACON 2018, 22 November 2018, New Delhi
7. Floating Shoulder, DOACON 2018, 24 November 2018, New Delhi
8. Floating clavicle CCR presentation from Department of Orthopaedics Trauma, 19 March 2019, AIIMS, New Delhi

Sanjeev Kumar Bhoi
1. Emergency Care System WHO meeting on Integration, 13 December 2017, AIIMS, New Delhi

Subodh Kumar
1. Damage Control Surgery in Trauma Patients Surgery Update 2018, 14 April 2018, Aligarh Muslim University, Aligarh
2. Damage Control Surgery in Trauma, AIIMS-FAM Joint Symposium in Trauma and Injury Prevention, 20 April 2018, JPNATC, AIIMS, New Delhi
5. Imaging in Trauma Practical Approach, 8th National Conference of the Indian Association of Traumatology and Critical Care, 24-25 August 2018, Mangalore, Karnataka
6. Damage Control Resusitation and Surgery, 8th National Conference of the Indian Association of Traumatology and Critical Care, 24-25 August 2018, Mangalore, Karnataka
7. Damage Control Resusitation and Surgery, CS-ISCON 2018, 64th Annual Conference of International College of Surgeons Indian Section, 14-16 September 2018, Varanasi, UP
11. Initial Assessment and Management of A Trauma Victim CME on Polytrauma Management, 15-16 February 2019, Sir Guru Ram Das Institute of Medical Sciences and Research, Amritsar, Punjab
15. Patient Extrication from Vehicle and Safe Transport Road Traffic Crash Training of Nursing Officers of Vice-President Medical Unit 8, March 2019, Dr RML Hospital, New Delhi

Sushma Sagar
1. Managing the Agitated Patient National CME on Consultation-Liaison Psychiatry, 9 April 2018, AIIMS, New Delhi
2. Mass Casualty Management and Hospital Disaster Management Plan “Emergency Medical Response and Psychosocial Care in Disaster Situation”, Organized by Haryana Institute of Public Administration (HIPA), 12 April 2018, JPNATC, AIIMS, New Delhi
3. Isafe—The Safer India Challenge, 17-18 Indian Road Safety Campaign (IRSC), 22 April 2018, IIT, New Delhi
4. Initial Assessment of a Trauma Victim ICSIS-NZCON 2018, 12-13 May 2018, Agra, UP
5. X-ray Identification of Thoracic Trauma, Advanced Trauma Life Support Instructor Course, 24-25 May 2018, JIPMER, Pondicherry
7. How Can Youth Contribute to Changing the Scenario of Road-Safety India, I-SAFE’17: The Safer India Challenge, 19 August 2018, IIT, New Delhi
8. Reproductive Health in Disasters Training Programme on Gender and Disaster Management, 27-31 August 2018, NIDM Post-Crash Management High Level Conference on Road Safety, 28-29 August 2018, Gurugram, Haryana
11. Panel Discussion Role of Youth in Road Safety Cum Launch of I-SAFE’18: The Safer India Challenge Ministry of Road Transport and Highways, Indian Road Safety Campaign, 9 September 2018, IIT, Delhi
12. Facial Injuries Challenges ICS-ISCN 2018, 64th Annual Conference of International College of Surgeons Indian Section, 14-16 September 2018, Varanasi, UP
13. A Brief on Sustainable Goal #3–Good Health and Well Being GGJ Delhi 2.0, 21 September 2018, New Delhi
14. Role of Bystander in Road Traffic Injuries Mega Event by IRSC at DTU, 30 October 2018, DTU, Delhi
15. Wound Care Nursing Programme Launch of On Job Enrichment Programme (OJEP) for Nurses, 27 November 2018, JPNATC, AIIMS, New Delhi
16. Disaster Planning in India Regional Health Emergencies in Large Populations Course, 3-14 December 2018, International Institute of Health Management Research (IIHMR), New Delhi
17. Role of Youth and Technology to Promote Multi-Sectoral Action in Road Safety Morth in Support with IRSC and NSS IIT-Delhi, 9 February 2019, IIT, New Delhi

Tej Prakash Sinha
1. MEDINSPIRE 2019 (AUTLS), DY Patil University, 14 February 2019, Mumbai
2. Annual national conference of Pedi STARS shaping the safety culture, 27 February-3 March 2019, AIIMS, New Delhi

Vijay Sharma
1. Pelvic packing/Embolization/B/L internal iliac ligation, 3rd Pelvic Acetabulum Cadaveric Course, 14-15 April 2018, AIIMS, New Delhi
3. Decision Making in Treatment of Acetabulum Fractures, 3rd Pelvic Acetabulum Cadaveric Course, 14-15 April 2018, AIIMS, New Delhi
4. Treatment Modalities in Fracture of Acetabulum, 14th DNG-JOS Meeting, 25 August 2018, DNG Ortho Hospital, Jaipur
6. Pelvic Injuries: Road to Rehabilitation, POACON, 11 November 2018, Chandigarh, Punjab
7. Decision Making in Acetabular Fractures: Operate or Not Approach Rationale, DOACON 2018, 22 November 2018, AIIMS, New Delhi
9. Unusual Femoral Shaft Fracture (Case Presentation), DOACON 2018, 23 November 2018, AIIMS, New Delhi
12. Essential Steps of Ilio Inguinal Approach, 3rd AOPAS Meeting, 29-31 March 2019, Bhubaneswar, Orissa

Vivek Trikha
1. Decision Making and Management Protocols for Calcaneal Fractures, Uttarakhand Annual Conference 2018, 6-8 April 2018, Dehradun
3. Anterior Acetabular Trauma Reduction and Fixation, Uttarakhand Annual Conference 2018, 6-8 April 2018, Dehradun
4. Definitive Stabilization Percutaneous Fixations Pelvis, Uttarakhand Annual Conference 2018, 6-8 April 2018, Dehradun
5. Associated Both Column Fracture, AIIMS-ACSST Pelvic Acetabulum Course, 14-15 April 2018, Delhi
7. Why is Research Important in Daily Practice, AOPEER Principles of Clinical Research Course, 27-28 April 2018, Lucknow
9. Crescent pelvic fractures, AO Trauma National Conference, 27-29 April 2018, Lucknow
10. Trochanteric Flip Osteotomy, Advanced Pelvi-Acetabular Course, 6-8 July 2018, Bengaluru
11. Quadrilateral plate comminution, Advanced Pelvi-Acetabular Course, 6-8 July 2018
12. Soft tissue lesions associated with pelvic trauma, Advanced Pelvi-Acetabular Course, 6-8 July 2018, Bengaluru
13. Difficult pelvic case, Advanced Pelvi-Acetabular Course, 6-8 July 2018, Bengaluru
14. Non-union cases, 5th AAOS-IOA Trauma Conclave, 20-21 July 2018, Mumbai
15. Tibial Plateau Fractures, 5th AAOS-IOA Trauma Conclave, 20-21 July 2018, Mumbai
17. Emergency management of pelvic fractures—A critical skill that can save lives, AOA Basic Principles of Trauma Course, 9-11 August 2018, Colombo, Sri Lanka
20. KL approach, National Symposium on Pelvic Acetabular Fractures, 25 August 2018, Raipur
24. Proximal humerus fractures to fix, to replace or treat nonoperatively? AOA Advanced Principles of Trauma Course, 13-15 September 2018, Kathmandu, Nepal
27. Both column fractures, Pelvi-Acetabular Cadaveric National Workshop, 9-10 November 2018, Vijayawada
28. Associated Both Column Injuries, DOACON 2018 Cadaveric Course on Pelvi-Acetabular Injuries, 22 November 2018, Delhi
30. Sequencing the Dual Approach in Acetabular Injuries, IOACON 2018, 29 November 2018, Coimbatore
34. Masquelet Technique in Infective nonunions, GOACON 2019 Annual Conference of Gujarat Orthopaedic Association, 1-3 February 2019, Ahmedabad
35. Local Antibiotic Delivery System in Infected cases, GOACON 2019 Annual Conference of Gujarat Orthopaedic Association, 1-3 February 2019, Ahmedabad
36. Experimental studies; RCT (CONSORT Guidelines), IJO-JCOT Scientific Writing Workshop, 17 February 2019, Delhi
37. Scapular fractures being safe n successful, SESICON 2019 Conference of Shoulder and Elbow Society of India, 23-24 February 2019, Coimbatore
38. Proximal humerus fractures fixation tips n tricks, SESICON 2019 Conference of Shoulder and Elbow Society of India, 23-24 February 2019, Coimbatore
39. Emergency management of pelvic fractures a critical skill can save lives, AO Trauma Basic Principles of Fracture Fixation, 28 February-2 March 2019, Bhubaneswar
40. Femoral neck fractures, AO Trauma Basic Principles of Fracture Fixation, 28 February-2 March 2019, Bhubaneswar
41. Bone healing and the effect of patient factors and injury mechanism on fracture management, AO Trauma Basic Principles of Fracture Fixation, 28 February-2 March 2019, Bhubaneswar
42. ABC Fractures Reduction Techniques, 3rd AOPAS 2019, Association of Pelvi-Acetabular Surgeons Annual Conference, 29-30 March 2019, Bhubaneswar
44. Preop Planning n Augmentation in Proximal Humerus Fractures, One Day One Topic on Proximal Humerus Fractures, 31 March 2019, Delhi

Oral papers/posters presented
1. Agarwal H, Gupta A, Kumar S, Mishra B, Sagar S, Kumar A, Evaluation of outcomes in patients with liver trauma—A Level 1 Trauma Centre observational study, 5th World Society of Emergency Surgery Congress, 28-30 June 2018, Bertinoro, Italy
2. Aggarwal R, Does real time ultrasonography confer any benefit during bronchoscopy guided percutaneous tracheostomy: A preliminary, randomised controlled trial conference IARS, AUA and SOCCA 2018 Annual Meetings, 27 April 2018, Chicago, USA
7. Albert V, Subramanian A, Pati HP, Mukhopadhyay AK, Assessing the efficiency of pre-hospital scoring system with conventional coagulation tests-based definition of acute traumatic coagulopathy poster, CCCLM 2018, 20th International Conference on Clinical Chemistry and Laboratory Medicine, 14-15 May 2018 (WASET), London, United Kingdom
9. Anwar M, Singh P, Singh TP, To determine the accuracy of FAST and its comparative analysis with CECT Torso in Paediatric Patients at Level 1 Trauma Centre of India (1st Prize), 5th AIIMS Neurotrauma Conference, 26-28 October 2018, Pain Despite Analgesia—Cured by Surgery Majid Anwar Delhi State Chapter, 23 February 2019, AIIMS, Delhi

16. Bhardwaj N, Khurana S, Mathur P, Malhotra R, Reduced monocytic TNF-α and IL-β in early stage of trauma lead to positive outcome in severely injured trauma patients, IMMUNOCON 2018, 1-3 November 2018, THISTI, Faridabad

17. Bindra A, A rare case of malpositioning of guidewire into external jugular vein during USG cannulation, Indian Society of Critical Care Medicine, 2 February 2019, Mumbai

18. Bindra A, Effect of Cerebral perfusion pressure augmentation on brain regional energy Metabolism, Medanta Neurocritical Care Update, Gurugram


21. Bindra A, Paediatric Traumatic Brain Injury: Neurointensive Care Management in a Tertiary Care Trauma Centre, 10th Euro Neuro, 8 November 2018, Brussels, Belgium


30. Govindaswamy A, Singh P, Malhotra R, Mathur P, Antimicrobial resistance pattern and attributable burden of pseudomonas aeruginosa in hospitalized patients from Level 1 Trauma Centre in India, IAMM DC at SSPGI Noida, 25 November 2018, Noida

31. Govindaswamy A, Singh P, Malhotra R, Mathur P, E-poster antimicrobial resistance pattern and attributable burden of pseudomonas aeruginosa in hospitalized patients from Level 1 Trauma Centre in India, AIIMS Research Day, 26 March 2019, Delhi


36. Gupta B, Release of pro and anti-inflammatory cytokines and development of sirs with different anesthetic techniques in major Orthopaedic trauma surgeries, Cytometry Society of India Conference, 29-30 October 2018, AIIMS, New Delhi


44. Khurana S, Mathur P, Bharadwaj N, et al. Interplay of nTreg, iTreg, and Th3: Regulatory T helper cell populations in major and minor trauma patients, MICRO-D-CON 2018, 10th Annual Conference of IAMM Delhi Chapter, 31 October-3 November 2018, New Delhi (Best Free Poster Award (II))

45. Khurana S, Mathur P, Bhadwaj N, Towards developing immunodiagnostic tests for septic polytrauma patients based on T helper-22 and regulatory T helper cells, MICRO-D-CON 2018, 10th Annual Conference of IAMM Delhi Chapter, 31 October-3 November 2018, New Delhi

46. Khurana S, Mathur P, Bhadwaj N, et al. Dynamics of T helper 9, T helper 22, and regulatory T helper cells in minor and major trauma AAAAI Annual Meeting, 2019 organized by American Academy of Allergy, Asthma and Immunology, 22-25 February 2019


50. Kumar V, Agarwal H, Mishra B, Sagar S, Kumar S, Prehospital care in India—The need of the hour, 77th Annual Meeting of the AAST (American Association for the Surgery of Trauma) and Clinical Congress of Acute Care Surgery and 4th World Trauma Congress (WTC), 26-29 September 2018, San Diego, California, USA

51. Kumar V, Kumar A, Mishra B, Gupta A, Sagar S, Kumar S, Traumatic laryngotracheal injuries—7 year experience from A Level 1 Trauma Center, 77th Annual Meeting of the AAST (American Association for the Surgery of Trauma) and Clinical Congress of Acute Care Surgery and 4th World Trauma Congress (WTC), 26-29 September 2018, San Diego, California, USA


54. Maji R, Tiwari A, Albert V, Subramanian A, Biochemical markers (Amylase and CRP) in Isolated Traumatic Brain Injury Poster, 16th Annual Meeting of the Society for Free Radical Research India-2018 (SFRRI-2018) and
55. Mir M, Sagar S, Sagar R, Bed sided grief counselling sessions to a patient with amputation international conference on cognitive behavioural intervention, 23-29 September 2018, SGT University

56. Mishra B, Joshi M, Lalwani S, Kumar A, Kumar A, Kumar S, Gupta A, Sagar S, A comparative analysis of the findings of post-mortem CT scan and traditional autopsy in traumatic deaths—Is technology mutually complementing or exclusive? 77th Annual Meeting of the AAST (American Association for the Surgery of Trauma) and Clinical Congress of Acute Care Surgery and 4th World Trauma Congress (WTC), 26-29 September 2018, San Diego, California, USA

57. Mittal S, Challenges of managing anterior acetabular fractures with the Stoppas approach in a developing country, 39th SICOT Orthopaedic World Congress, 10-13 October 2018, Montreal, Canada

58. Mittal S, Avoiding malalignment in proximal femur fractures treated with newer generation cephalomedullary nails: Some technical tips, DOACON 2018, 22-24 November 2018, JLN Auditorium, New Delhi, India

59. Mittal S, Radiologic CT study of trans sacra and Ilio sacral screws in the Pelvis in an Indian population, 39th SICOT Orthopaedic World Congress, 10-13 October 2018, Montreal, Canada

60. Mittal S, Total hip replacement in the active stage of Tuberculosis of the hip joint, DOACON 2018, 10-13 October 2018, Montreal, Canada


64. Mukhopadhyay T, Albert V, Arulselvi S, Mukhopadhyay AK, Flowcytometric analysis of platelet function in trauma patients with thrombocytopenia postet, The Cytometry Society-India, 11th Annual Conference and Workshops, 29-31 October and 1 November 2018, All India Institute of Medical Sciences, New Delhi

65. Mukhopadhyay T, Flowcytometry based platelet function analysis to rationalize platelet transfusion in trauma patient paper VISA, 10 November 2018, Madurai, Tamil Nadu


78. Sagar S, Maqbool M, Sharma U, Mir N, Kumar S, Sagar R, Effectiveness of YOGA on QOL, Self esteem and psychopathology among patient with lower limb amputation admitted at Surgical Unit of Level 1 Trauma Center, AIIMS: A pilot study, ANCIPS 2019, 31 January-3 February 2019, Lucknow


80. Sangwan A, Goyal A, Kandasamy D, Kumar A, Kimura’s Disease: How to suspect this uncommon disease clinicoradiologically, 18th Annual Meeting of Asian Oceanian Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISP), September 2018, Chandigarh


83. Sardana S, Bhardwaj N, Mathur P, Khurana S, et al. Memorial award (poster) in immunodiagnostic techniques, Decreased monocytic TNF-a, IL-6 and IL-b after 72 hours of injury lead to positive outcome in severely injured trauma patients, AAAAI Annual Meeting, Organized by American Academy of Allergy, Asthma and Immunology, 22-25 February 2019, Moscone Center, South Building, San Francisco, California, USA


87. Sharma U, Maqbool M, Mir N, Kumar S, Arulselvi, Sagar R, Sagar S, Impact of Yoga therapy on perceived quality of life, depression, anxiety and stress among patient with lower limb amputation, Admitted at Surgical Unit of Level 1 Trauma Centre, AIIMS Neuroanaesthesia Update, 2-4 November 2018, AIIMS


91. Singh P, Govindaswamy A, Malhotra R, Mathur P, Prevalence of acinetobacter baumannii infections in ICU patients from Level 1 Trauma centre in India IAMM DC at SSPGI Noida, 25 November 2018, Noida


93. Singh P, Malhotra R, Mathur P, Antimicrobial resistance pattern and attributable burden of acinetobacter baumannii infection in intensive care unit, Patients at Level 1 Trauma Centre in India, MICRODCON, 31 October-3 November 2018
94. Singh PK, Sawarkar DS, Chandra PS, Kale S, Verma S, Kumar A, Surgical management of symptomatic paediatric vertebral haemangiomas presenting with myelopathy with long term follow up, ISPNO 2018, 29 June-3 July 2018, Denver


96. Singh PK, Sawarkar DS, Chandra PS, Kale SS, Verma S, Kumar A, Surgical management of symptomatic paediatric vertebral haemangiomas presenting with myelopathy with long term follow up, ISPN 2018, 7-11 October 2018

97. Singh PK, Sawarkar DS, Kale SS, Kumar A, Management of paediatric traumatic thoracolumbar spondyloptosis, ISPN 2018, 7-11 October 2018


99. Subramanian A, Albert V, Arora M, Study of bone marrow response to injury using Hematopoietic Progenitor Cells (HPC) measurement in trauma patients poster, LMCE (Laboratory Medicine Congress and Exhibition) and KSLM 59th Annual Meeting, 1-3 November 2018, Seoul, S Korea

100. Subramanian A, Albert V, Bhoi S, Agrawal D, Mild Traumatic Brain (MTBI) induced coagulation abnormality and its association with Cognitive Impairment (CI) Poster ISBT-1339, 35th International Congress of the ISBT, 2-6 June 2018, Toronto, Canada


102. Subramanian A, Venencia A, Bhoi S, Utility of Thromboelastography Derived MA-R ratio as a predictor of mortality in trauma patients poster CCCLM 2018, 20th International Conference on Clinical Chemistry and Laboratory Medicine, 14-15 May 2018 (WASET), London, United Kingdom


104. Tiwari P, Gupta B, Arulselvi S, Mathur P, Gupta A, Release of pro- and anti-inflammatory cytokines and development of sirs with different anaesthetic techniques in major Orthopaedic trauma surgeries poster The Cytometry Society-India, 11th Annual Conference and Workshops, 29-31 October and 1 November 2018, All India Institute of Medical Sciences, New Delhi


106. Trikha V, Chowdhury B, Arulselvi S, Does surgical delay effect the temporal expression of bone turnover markers after intramedullary nailing of isolated femur shaft fracture, 19th EFORT Congress, 30 May-1 June 2018, Barcelona, Spain

107. Trikha V, Chowdhury B, Floating hip injuries: Sequence of fixation: A retrospective study, 19th EFORT Congress, 30 May-1 June 2018

108. Trikha V, Chowdhury B, Management of morel-lavalle lesion associated with pelvi-acetabular fractures, 19th EFFORT Congress, 30 May-1 June 2018, Barcelona, Spain

109. Trikha V, Chowdhury B, Management of morel-lavallee lesion associated with pelvi-acetabular fractures: A retrospective study, SICOT World Congress, 10-13 October 2018, Montreal, Canada

110. Trikha V, Chowdhury B, Proximal humeral fracture dislocations managed with locked plates: A retrospective study, SICOT World Congress, 10-13 October 2018, Montreal, Canada

111. Trikha V, Chowdhury B, Role of staged approach in functional and radiological outcome of high energy tibial plateau fractures, A retrospective study, SICOT World Congress, 10-13 October 2018, Montreal, Canada

112. Trikha V, DCO vs ETO How do I decide in India? 19th EFFORT Congress, 30 May-1 June 2018, Barcelona, Spain


RESEARCH

Funded projects

Ongoing

1. A country-level assessment of the current status of emergency and injury care at secondary and tertiary care centers in India—50 Tertiary care level and large Private Hospitals, NITI Aayog, India, Rs 38 lakhs
2. A country-level assessment of the current status of emergency and injury care at secondary and tertiary care centers in India—50 District Hospitals, NITI Aayog, India, Rs 35 lakhs
3. A prospective randomized study to compare the systemic emboli in computer assisted navigation vs conventional surgical technique of knee replacement, Rajesh Malhotra, ICMR, 3 years, 2018-2021, Rs 49 lakhs
4. A randomized control trial to study the impact of Yoga intervention in lower limb amputees following trauma in relation to postsurgical outcome, Behavior and quality of life at Level I Trauma Center, Sushma Sagar, DST, 3 years, 2017-2020, Rs 54 lakhs
5. ADAPT, Deepak Gupta, National Institute of Health, 7 years, 2015-2022, Rs 49,336
6. An Intervention Study on Comprehensive Emergency Care and Trauma Registry for Road Traffic Injuries in India, Amit Gupta, ICMR, 2 years, 2017-2019, Rs 32 lakhs/year
7. Capacity building and strengthening of hospital infection control to detect and prevent antimicrobial resistance in India, Purva Mathur, Centers for Disease Control and Prevention, 5 years, 2015-2020, Rs 33 crores
8. CENTER-TBI Deepak Gupta Universitair Ziekenhuis Antwerpen (UZA), Belgium, 4 years, 2016-2020, 5000 USD per year
9. Comparing the use of needle guidance versus free hand technique in performing ultrasound guided central venous cannulation: A prospective randomized trial, 2016 Ongoing, Rs 4.6 lakhs
10. Correlation between preoperative CSF melatonin levels and post-operative delirium in geriatric hip fractures, Samarth Mittal, AIIMS, 2 years, 2018-2020, Rs 4.6 lakhs per annum
11. CV 185-158: Phase IV, Open-label, multi-center study to evaluate the safety of apixaban in Indian subjects undergoing elective total knee replacement or total hip replacement surgery, Rajesh Malhotra, Bristol-Myers Squibb, 4 years, 2015-2019, Rs 3.3 lakhs
12. Development and validation of an electronic surveillance system for surgical site infections developing during hospital stay and after discharge: A multi-centric study, Purva Mathur, ICMR, 3 years, 2017-2020, Rs 1.3 crores
13. Effect of decompressive craniectomy on jugular venous oximetry in patients with severe traumatic brain injury, Navdeep Sokhal, AIIMS, 2 years, 2017-2018, Rs 2.5 lakhs
14. Estimation of occurrence of intra abdominal hypertension and its implication on non operative management protocol in patients with solid organ injury following blunt trauma abdomen, Dinesh Bagaria, AIIMS, 1 year, 2018-2019, Rs 4.80 lakhs
15. Evaluation of urinary biomarkers TIMP-2 and IGFBP7 for early prediction of acute kidney injury after traumatic crush injuries, Richa Aggarwal, AIIMS, 2 years, 2017-2019, Rs 3.5 lakhs
16. Impact of alcohol on dysregulation of inflammation and recovery of trauma hemorrhagic shock patients, AIIMS, Rs 9.5 lakhs
17. Incidence of heterotropic ossification in Pelvi-Acetabular fractures—Can it be predicted and prevented? Samarth Mittal, AO Trauma, 2018-2020, CHF 8000
18. Paroxysmal Sympathetic Hyperactivity (PSH) and its role in outcome in severe traumatic brain injury, S Arulselvi, AIIMS, 1 year, 2018-2019, Rs 10 lakhs
19. RESCUE ASDH Deepak Gupta Cambridge University, 3 years, 2017-2020, Consumables: 144 Pounds Per Randomised Patient CRF Completion Costs: 213 Pounds per Randomised Patient, Rs 9.52 lakhs
20. Role of Endocrine Disrupting Chemicals (EDCs) in Maternal and Chils Health, ICMR, 3 years, 2018, Rs 35 lakhs
21. Role of Post-Trauma Lymphocyte—Monocyte Response and Programmed Death—1 Levels in Early Diagnosis of Sepsis and Prognosticating Outcome in Trauma Patients, Purva Mathur, ICMR, 2018-2021, Rs 45 lakhs
22. Study of osteogenic humoral factors on fracture healing in patients with head injury: Decoding the mystery, Vijay Kumar Digge, DST, 3 years, 2018-2021
23. To evaluate combination of biochemical endothelial markers and arterial stiffness in prediction of preeclampsia ICMR (DHR), 3 years, 2018, Rs 76 lakhs
24. To evaluate results of soft tissue reconstruction and augmentation with structural fat grafting in patients with post traumatic facial disfigurement, Sushma Sagar, DST (Women Scientist), 3 years, 2015-2018, Rs 30 lakhs

25. To study efficacy of amniotic membrane as an alternative wound dressing in patients with post traumatic raw area admitted in Trauma Surgery Unit, Abhinav Kumar, AIIMS, 1 year, 2018-2019, Rs 5 lakhs

26. To study the impact of Yoga on pulmonary functions, immune response and quality of life in chest trauma patients at Level-1 Trauma Center, Subodh Kumar, DST, 3 years, 2016-2019, Rs 40 lakhs

27. Utility on Novel Coated Platelets as a Marker for Early Prognostication of Neurocognitive Impairment Following Traumatic Injury, S Arulselvi, DST–CSIR, 3 years, 2016-2019, Rs 37.11 lakhs

Completed

1. Cleft lip and palate anomaly in India: Clinical profile, Risk factors and current status of treatment—Hospital based surveys, Sushma Sagar, ICMR, 5 years, 2013-2018, Rs 35 lakhs

2. Reducing the burden of injury in India and Australia through development and piloting of improved systems of care, Amit Gupta, DST, 4 years, 2013-2018, Rs 2.74 crore

3. Assessment of effect of cerebral perfusion pressure augmentation in severe head injuries by monitoring of regional energy metabolism by cerebral microdialysis, Ashish Bindra, AIIMS, 2 years, 2016-2018, Rs 4.95 lakhs

4. Cerebroprotective role of dexmedetomidine in Epilepsy Surgery, Ashish Bindra, AIIMS, 2 years, 2012-2014, Rs 2.62 lakhs

5. Does real time ultrasonography during bronchoscopy guided percutaneous tracheostomy confer any benefit: A preliminary Randomized controlled trial, AIIMS, Rs 0.83 lakhs

6. A multi-centre, prospective, uncontrolled Post Market Clinical Follow-Up Study (PMCFS) to monitor the survival and performance of the Delta Motion Cup System in subjects requiring a total hip replacement, Rajesh Malhotra, Johnson and Johnson Medical India, 5 years, 2013-2018, Rs 15.50 lakhs


8. Comparison of yearly zoledronic acid versus weekly alendronate in preference, Convenience, compliance, persistence and bone turnover markers in Indian postmenopausal osteoporotic women, Rajesh Malhotra, ICMR, 3 years, 2015-2018, Rs 40 lakhs

9. A single blind cluster randomized controlled trial to compare the clinical and radiological outcomes in patients with ankylosing spondylitis with fused hips and spinopelvic deformity undergoing total hip arthroplasty using a Novel Computer Aided Design (CAD) model based protocol vs Conventional technique, Rajesh Malhotra, DBT, 3 years, 2015-2018, Rs 34 lakhs

10. Evaluation of Micro RNA (MiRNA) as a marker for bone healing in osteoporotic traumatic proximal femur fractures: Pilot study, S Arulselvi, AIIMS, 2 years, 2016-2018, Bioinformatic Analysis and Interpretation, Rs 5 lakhs

11. A country-level assessment of the current status of emergency and injury care at secondary and tertiary care centres in India, Niti Aayog, India, Rs 60 lakhs

12. To study the efficacy of Chitosan in achieving haemostasis in patients with acute traumatic wound presenting to Emergency Department, DRDO, India, Rs 55 lakhs

Departmental projects

Ongoing

1. A pilot study to evaluate the need of post operative systemic anticoagulation in patient with post traumatic medium size peripheral artery repair: A randomised control trial

2. A prospective randomised study to compare large console, Image less computer assisted navigation vs accelerometer based portable navigation technique of total knee replacement

3. A prospective randomized clinical trial to compare clinical, fluoroscopic and radiological outcome between medial pivot and lateral pivot knee

4. A prospective randomized controlled trial to study the effect of two different tidal volumes (6-8 ml/kg vs 12-15 ml/kg) on the time to wean from ventilator in patients with cervical spine injury (C1-C5)

5. A randomized controlled trial to study the clinical and radiological outcomes of a study comparing contrast enhanced computed tomography abdomen versus diagnostic laparoscopy in patients with penetrating abdominal trauma: A randomized controlled trial

6. A study comparing enhanced recovery protocol versus standard care in patients undergoing laparotomy following trauma—A randomized control trial
7. A study to evaluate utility of routine use of contrast enhanced computed tomography scan torso in patients presenting with dangerous mechanism of injury in Level I Trauma Centre
8. A study to find minimum effective volume of 0.5% ropivacaine for ultrasound guided costoclavicular block
9. A study to grade management related complications in acutely injured patients and their correlation with the outcomes at a Level 1 Trauma Center
10. Abbreviated discharge protocol in patients with blunt liver and splenic injury: A pilot study
11. Assessment of cardiac activity by bed side ultrasound to predict outcome in cardiac arrest patients in Emergency Department
12. Assessment of splenic immune function in patients with blunt splenic injury
13. Cardiovascular complications after traumatic spinal cord injury
15. Comparison of C-MAC video-laryngoscope with D-Blade, C-MAC video-laryngoscope with standard blade and Macintosh Laryngoscopes for intubation with cervical spine immobilization: A randomized study
16. Correlation of NIRS with intraoperative transfusion trigger in paediatric patients posted for posterior fossa tumour excision
17. Does real time ultrasonography during bronchoscopy guided percutaneous tracheostomy confer any benefit a preliminary randomised controlled trial? Richa Aggarwal, AIIMS, 3 years, 2013-2016, Rs 83,000
18. Effect of Decompressive Cranietectomy on Jugular Venous Oximetry (SJVO2) in patients with severe Traumatic Brain Injury (TBI), Funded by AIIMS, Rs 5 lakhs
19. Effect of different dose regimens of Tranexamic acid in pelviacetabular fracture surgery: Randomized clinical trial
20. Effect of ketamine infusion as neuroprotective agent on neurological outcome in patients with severe traumatic brain injury: A randomized controlled pilot study
21. Effect of neuroradiologic interventions on regional cerebral oxygenation in patients with anterior circulation aneurysms: An observational study
22. Effect of phrenic nerve stimulation on diagram strength and thickness: A randomized controlled trial
23. Effect of virtual reality therapy on lower limb amputee balance ADL and pain
24. Epidemiology and analysis of predictors of mortality in trauma patients at a Level I Trauma Centre
25. Evaluation of diagnostic characteristics of point of care ultrasound in identification of maxillofacial fractures as compared to CT scan
26. Evaluation of soft tissue vascular anomalies using CEUS and elastography
27. Feasibility and Implementation of Hospital Based Trauma Registry for RTI at different levels of health care setting and it’s effects on quality of patient care
28. Fibroadipose vascular anomaly: Comprehensive analysis of clinic-radiologic-pathological features and treatment outcomes of this new entity
29. Histology of lumbar inter vertebral disc in degenerative disc disease and its correlation with clinical and radiological findings
30. Imaging in infantile brachial plexopathy
31. Implant migration analysis using RSA and clinic-radiological outcome in Indian population undergoing mobile bearing UKR
32. Intertrochanteric Femur Fractures (Commenced in January 2019)
33. Intraoperative use of dexmedetomidine in large vascular meningiomas
34. Outcome correlation of initial arterial blood gas analysis in isolated thoracic injury
35. Primary versus delayed primary closure in patients undergoing lower limb amputation—A randomized controlled study
36. Prospective observational study of transfusion practices in severely injured trauma patients in Emergency Department in Level 1 Trauma Center
37. Randomized control trial: Comparative analysis of orbital volume in 3D-Model assisted mesh adaptation versus conventional technique in reconstruction of orbital floor fracture
38. Reconstruction of post traumatic facial defects using adipose tissue derived mesenchymal stem cells seeded on 3D Printed Hydroxyapatite Scaffold Guided by CAD Models in Zygomatico-Orbital-Maxillary Complex Fractures
39. Role of imaging for clinical outcome evaluation in pelvic fracture patients
40. Role of interventional radiology in obstetric related hemorrhage
41. Role of T-Helper cells and neurophilps in the outcome of patients with chest trauma
42. Sclerotherapy in low-flow vascular malformations: Assessment of clinical effectiveness of the current practices in a tertiary care center
43. Serum lactate, base deficit and glucose levels as prognostic markers of severe traumatic brain injury
44. Study of role of biochemical parameters to determine outcome in elderly hip fracture patients
45. To compare the effect of goal directed fluid therapy versus standard fluid regimen on the cuff leak volume in patients undergoing spine surgery
46. To determine by ultrasound the optic nerve sheath diameter in pediatric patients with increased intracranial pressure compared with control group
47. To evaluate the effect of change in end tidal carbon dioxide on optic nerve sheath diameter under general anaesthesia
48. To study management, outcomes and quality of life in patients with pelvic fractures at Level 1 Trauma Center
49. To study the correlation between clinical parameters and intra-abdominal pressure and their effect on the non operative management of patients with blunt trauma abdomen at Level 1 Trauma Centre
50. To study the risk factors and causes of extubation failure in head injury patients
51. Use of intratracheal lignocaine to reduce emergence reaction in the patients undergoing endoscopic transphenoidal pituitary surgery: A randomized controlled study
52. Water bath evaluation technique for ultrasound of distal hand and foot injuries in emergency department

Completed
1. A study of the acceptability and feasibility of opportunistic cervical cancer screening in pregnancy by conventional pap smear and HPV DNA testing
2. A study to assess pancreatic endocrine and exocrine functions in patients with pancreatic trauma
3. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis of organ dysfunction and sepsis
4. Clinical characteristics and outcome of patients with fat embolism syndrome in Level 1 Apex Trauma Centre—A prospective observational study
5. Comparative study of prevalence of human papilloma virus infection in premalignant lesion of vulva and cervix and comparison among HIV positive and negative women
6. Comparison of propofol and ketofol on transcranial motor evoked potentials in patients undergoing thoracolumbar spine surgery, Ongoing
7. Comparison of Propofol versus sevoflurane anaesthesia in subarachnoid haemorrhage patients undergoing clipping for aneurysm
8. Correlation between invasive and non-invasive technique of ICP measurement in children with traumatic brain injury: An observational study
9. Diagnostic and prognostic role of MRI in evaluation of acute traumatic cervical spine injuries
10. Elected as Joint Secretary in DOA in November 2018
11. Evaluation of effect of intravenous Dexametadomine on intraoperative blood loss during intracranial meningeoma surgery: A randomized controlled study, Completed
12. Evaluation of the role of a capacity building programme for initial assessment and management of trauma patients in Emergency Department in improving knowledge, skills and attitude of Doctors and Nurses
13. Incidence and risk factors of deep vein thrombosis in patients undergoing intracranial tumor surgeries, A prospective study, Ongoing
14. Management and outcome of mesh laparostomy in patient with abdominal trauma at Level I Trauma Centre
15. Outcome of trauma patients with acute kidney injury with renal replacement therapy in surgical ICU: Our experience
16. Outcome of patients of chest trauma suffering from COPD—Our experience at Level 1 Trauma Centre
17. Post mortem histopathological study of post TBI Induced Axonal B APP Stains in Corpus Callosum, Thalamus and Brain Stem
18. Prospective evaluation of functional outcome along with histological features of induced membrane in patients with infective non-union managed with masquelet technique
19. QI project—To improve the compliance of VAP bundle in ICU
20. Randomized trial comparing two techniques of fibreoptic orotracheal intubation under general anaesthesia: Fibreoptic intubation with and without the use of air-Q intubating laryngeal airway
21. Role of Urinary Neutrophil Gelatinase Associated Lipocalin (U-NGAL) as early biomarker for prediction of acute kidney injury in patients treated with colistin

22. Study of association between insulin sensitivity and cardio-vascular risk factors in lean versus overweight subjects with polycystic ovarian syndrome

23. Study of platelet dysfunction in trauma patients requiring platelet transfusion

24. Study of TEG versus conventional coagulation tests in liver trauma (Retrospective)

25. To compare efficacy of Tolterodine and Solefanacin in patients with overactive bladder syndrome

26. To compare the efficacy of ulipristal acetate versus GnRH agonist in women with symptomatic uterine myoma and post treatment follow up: A prospective randomized control study

27. To compare the hormonal and metabolic outcomes in Metformin plus Myoinositol vs Metformin alone and fertility outcome in PCOS women undergoing OVI and IUI cycles

28. To evaluate the efficacy of Cabergoline as compared to GnRH agonist in women with Endometriosis: A prospective randomised controlled trial

29. To evaluate the functional outcome, histological and electron microscopic features of the induced membrane in patients of post traumatic bone defects managed with Masquelet technique

30. To evaluate the reproductive outcome of IVF ICSI Cycles using ejaculated sperm ICSI versus Percutaneous Epididymal sperm (PESA ICSI) in male factor infertility

31. To study clinical and immunological parameters in predicting short term outcomes in polytrauma patients admitted to Trauma Surgery

32. To study splenic functions and complications in patients with blunt splenic injury at Level 1 Trauma

33. To study the effect of Yoga on pulmonary functions, Respiratory muscle strength and endurance, chest wall mobility, inflammatory markers and quality of life in blunt chest trauma patients and their correlation with thoracic trauma severity score at Level 1 Trauma Centre

34. To study the efficacy of serratus anterior plane block in patients undergoing trunk based flap surgeries—A pilot study

35. To evaluate the functional outcome, histological and electron microscopic features of the induced membrane in patients of post traumatic bone defects managed with Masquelet technique

36. To study the role of T helper-9, T helper-17, T helper-22, T-Regulatory lymphocytes in Post-Trauma Immunopathogenesis

Collaborative projects

**Ongoing**

1. A comparative pilot study of autologous rectus fascia pubovaginal sling and transobturator vaginal tape procedure in women with stress urinary incontinence, Urology

2. A prospective randomized trial comparing laparoscopic versus endoscopic drainage for walled off necrosis following acute pancreatitis, Surgery

3. A randomized sham controlled clinical trial of targeted low frequency repetitive transcranial magnetic stimulation in childhood focal onset refractory epilepsy, Paediatrics

4. A week in Neurocritical Care Unit: Point prevalence observational study in Neurocritical Care: PRINCE Study, Baylor College of Medicine, Houston, Texas

5. Abbreviated discharge protocol in patients with liver and or splenic injury following blunt trauma abdomen, Trauma Surgery and Critical Care

6. An evaluation of diaphragmatic movement by M-mode sonography as a predictor of successful extubation during routine surgical procedures, Anaesthesia, Radiodiagnosis

7. Comparison of C-MAC video-laryngoscope with D-Blade, C-MAC video-laryngoscope with standard blade, and Macintosh Laryngoscopes for intubation with cervical spine immobilization: A randomized study, Neuroanesthesiology and critical care

8. Comparison of letrozole plus Gonadotropins versus Gonadotropins alone for Controlled Ovarian Stimulation in PCOS women undergoing IVF-ICSI Cycles—A randomized controlled trial

9. Comparison of various modalities to diagnose occult stress urinary incontinence in Pelvic Organ Prolapse

10. Correlation of first trimester metabolic parameters and maternal body fat indices with development of gestational diabetes mellitus in Asian Indian women—A comparative study

11. Correlation of the gastric residual volume determined by ultra sound and acceptance of enteral tube feed in medical/surgical ICU—An observational study, Anaesthesia and Critical Care
12. DTI, fMRI and qEEG correlates of cognition and behavior in children and adolescents with well controlled non-lesionalepilepsy: An observational study, Paediatrics
13. Effect of lidocaine infusion on hemodynamics and recovery in patients undergoing endoscopic pituitary surgery: A multicentre randomized control trial, Anaesthesiology, Health Sciences Centre, University of Mannitoba, Winnipeg, Canada
14. Evaluation of changes in measured GFR, echocardiography, markers of bone mineral metabolism and carotid intima media thickness after renal donation, Nephrology
15. Evaluation of Efficacy and feasibility of implementation of Enhanced Recovery after Surgery (ERAS) protocol in women undergoing gynaecological surgery
16. Histology of Lumbar Inter Vertebral Disc in Degenerative Disc Disease and its correlation with clinical and radiological findings, Orthopaedic
17. Incidence and risk factors of preterm brain injury (periventricular leukomalacia and/or intraventricular hemorrhage) in very low birth weight neonates (32 weeks gestation or less than 1500 gm birth weight): A prospective cohort study, Paediatrics
18. Minimally Invasive Autopsy (MIA) in the evaluation of fetal malformations and stillbirths, Paediatrics
19. Morphometric and morphoscopic study of ear and nose in Brahmin and Rajput Population of Mandi, Himachal Pradesh—A forensic anthropological investigation, Anthropology, Panjab University, Chandigarh
20. Muscle ultrasound in children with peripheral hypotonia in children aged 1 month–18 years, Paediatrics
21. Optimizing blood inventory management at a super speciality blood centre in India—A case study, CNC Blood Bank
22. Outcome correlation of initial arterial blood gas analysis in Isolated Thoracic Injury, Trauma Surgery and Critical Care
23. Primary versus delayed primary closure in patients undergoing lower limb amputation following trauma, A randomized controlled trial, Trauma Surgery and Critical Care
24. Prospective observational study of transfusion practices in severely injured trauma patients in Emergency Department at Level 1 Trauma Center, Laboratory Medicine
25. Risk factors and outcome of patients with ventilator associated events and complications in trauma ICU, Anaesthesia and Critical Care
26. Role of Gene Xpert in Diagnosis of Female Genital Tuberculosis as compared to other conventional diagnostic techniques
27. Role of T-helper cells and neutrophils in the outcome of patients with chest trauma
28. Study of Early Urine and Blood Biomarkers (IGFBP7 and TIMP2) for Acute Kidney Injury in Trauma ICU, Anaesthesia and Critical Care, JPNATC
29. Surveillance of Blood Stream Infections (BSI) at a referral Indian Hospital Surveillance of Blood Stream Infections (BSI) at a Referral Indian Hospital, Microbiology, JPNTC
30. To compare the effect of metformin plus myoinositol vs myo inositol alone in terms of clinical pregnancy rate in infertile PCOS women undergoing ovulation induction and IUI cycles
31. To evaluate exhaled air carbon monoxide level in pregnancy and correlate with maternal and fetal outcome: A pilot study
32. To evaluate the efficacy of Myoinositol in treatment of gestaional Diabetes Mellitus in Asian Indian women: A pilot study
33. To study clinical and immunological parameters in predicting short term outcomes in polytrauma patients admitted to Trauma Surgery
34. To study splenic functions and complications following blunt splenic trauma at Level 1 Trauma Centre
35. To study the effect of Yoga on pulmonary functions, Respiratory muscle strength and endurance, Chest wall mobility, Inflammatory markers and Quality of life in blunt chest trauma patients and their correlation with Thoracic Trauma Severity Score at Level 1 Trauma Centre
36. To study the extent of variation in ridge characteristics and determining gender among twins using their fingerprint characteristics, Forensic Medicine and Toxicology, KMC, Manipal
37. To study the impact of Yoga on pulmonary functions, immune response and quality of life in chest trauma patients at Level 1 Trauma Centre
38. To study the role of Myo-Inositol-D-Chiro-Inositol Combination versus Combined Oral Contraceptives on Clinico-hormonal and Metabolic Parameters in Young Asian-Indian Girls with Polycystic Ovary Syndrome
39. Understanding differences in the patterns of osteoarthritis in Indian and Western population: Impact on symptoms, treatment options and their outcome DST-UKIERI, IGIB, IIT
40. Whole body MRI in the assessment of metastatic disease of osteosarcoma and Ewing’s sarcoma, Orthopaedics

Completed

1. A study on distribution of glucose tolerance among women with history of gestational diabetes mellitus by IADPSG criteria/overt diabetes in pregnancy and their spouses, Endocrinology and Metabolism
3. Post Mortem Histopathological Study of Post TBI Induced Axonal B APP Stains in Corpus Callosum, Thalamus and Brain Stem, Forensic Medicine and Neurosurgery
4. Prognostic Significance of Cytokines and Biomarkers in Patients with Traumatic Lung Injuries, Laboratory Medicine
5. Proposal for the Microstructural Analysis of Soft Tissue (Human Heart and Lung) after Dynamic Compression, IIT Mechanical Department, Delhi
6. Role of Metabolic imaging in patient’s with undiagnosed abdominal pain, Surgery
7. Role of T-helper cells and neutrophils in the outcome of patients with chest trauma, Laboratory Medicine
8. The role of point of care ultrasound as an adjunct to diagnostic test in evaluation of acute dyspnoea patients presenting to Emergency Department, Emergency Medicine
9. To evaluate the functional outcome, histological and electron microscopic features of the induced membrane in patients of post-traumatic bone defects managed with Masquelet Technique, Orthopaedics

PUBLICATIONS
Journals: 177 Abstracts: 6 Chapters in Books: 8

PATIENT CARE

I. Total Bed Strength of facility: 278
   Ward beds: 194 ICU beds 2nd floor: 12 ICU beds 3rd floor: 20
   Triage: 30 New Private Ward: 22
   Total functional beds: 248

II. Statistics at a Glance
   Total no. of ED attendance: 77,139 Average per day: 211
   Total no. of admissions: 7,678 Average admissions per day: 21
   Average Length of Stay (ALS): 10
   Total no. of follow-up OPD cases: 51,660 Average follow up OPD attendance: 176
   Males: 51,271 Females: 17,662
   Male child: 5,332 Female Child: 2,858
   Other: 16
   MLC: 43,361 Non-MLC: 33,778
   Specialty Wise
   Yellow: 21,374 Green: 46,690 Red: 5,328
   OPD: 3,613 Radiology: 37 Black: 97

III. Total No. of Follow-up OPD Cases: 51,660
   New: 20,040 Old (Re-visit): 31,620
   Male: 35,027 Male Child: 3,865
   Female: 10,734 Female Child: 2,034
   Specialty-wise break-up
   Trauma Surgery and Critical care: 6,051 Orthopaedics: 29,129 Neurosurgery: 6,961
   Plastic and Reconstructive Surgery: 9,461 Brachial Plexus Injury: 58

IV. Total No. of Admissions: 7,678
   Regular: 7,438 Short - 240
   MLC: 5,229 - 116
   NMLC: 2,209 - 124
   Male: 5,515 - 173
Female: 1,306 -36  
Male child: 388 -18  
Female child: 234 -13  
Others: 1  

Speciality wise Break-up  
Trauma Surgery and Critical care: 2146 Short -81  
Orthopaedics: 2,506 -14  
Neurosurgery: 1,853 -7  
PRS: 871 -137  
ENT: 1 -1  
Paediatric surgery: 61 -0  

VI. Total No. of Operations performed: 8,672  
Major: 8,372 Minor: 300  
Speciality-wise break-up  
Trauma Surgery and Critical care: 1,985  
Orthopaedics: 4,325  
Neurosurgery: 1,315  
PRS: 1,040  

VII. Total Discharges: 7266  
MLC: 4,929 NMLC: 2,337  
Male: 5,313 Female: 1,209  
Male Child: 490 Female Child: 253  
Others: 1  

Department Wise Distribution  
Trauma Surgery and Critical Care: 2,113  
Orthopaedics: 2,474  
Neurosurgery: 1,695  
PRS: 936  
ENT: 1  
Paediatric surgery: 438  

VIII. Days of Care: 72,142  
Trauma Surgery and Critical Care: 20,265  
Orthopaedics: 21,869  
Neurosurgery: 24,666  
PRS: 4,903  
ENT: 1  
Paediatric surgery: 438  

IX. Total Deaths Registered: 908  
Brought Dead Cases: 110  
Total Deaths at TC (Deaths Registered–Brought Dead): 798 (908-110)  
Deaths Under 48 Hours: 419  
Deaths Over 48 Hours: 379  
Gross Death Rate: 11%  
Net Death Rate: 6%  
Bed Occupancy Rate: 80%  
Average length of stay: 10 days  
Bed Turnover rate: 29%  

Tests conducted in Laboratory Medicine, JPNA Trauma Centre: 13,38,898  

Haematology  
MCH: 50,830  
Haemoglobin: 50,830  
TLC: 50,830  
Platelet count: 50,830  
Differential count: 50,830  
HCT: 50,830  
ESR: 3,973  
RBC: 50,830  
RBC Morphology: 7,693  
MCH: 50,830  
Blood parasite: 7,693  

Total 5,27,659  

Coagulation  
PT: 30,369  
Fibrinogen: 12  
APTT: 30,369  
D-dimer: 196  

Total 60,946  

Clinical pathology  
Urine routine and Microscopy: 2,374  
CSF microscopy: 809  
Urine myoglobin: 178  
Fat globules: 67  

Total 3,428  

Total tests done in Haematology section: 5,92,033
**Biochemistry**

- **Sugar:** 16,649
- **Urea:** 52,845
- **Creatinine:** 52,845
- **Calcium:** 49,267
- **Phosphorous:** 48,024
- **Uric Acid:** 35,006
- **Sodium:** 51,974
- **Potassium:** 51,974
- **TBIL:** 38,317
- **DBI:** 38,252
- **Total protein:** 38,218
- **Albumin:** 38,217
- **SGOT:** 38,266
- **SGPT:** 38,266
- **ALP:** 38,212
- **Cholesterol:** 5,092
- **HDL:** 773
- **LDLD:** 718
- **TG:** 1,152
- **VLDL:** 1,152
- **CK:** 86
- **CRP:** 3,079

**ABG**

- **PO2:** 5475
- **PCO2:** 5475
- **PH:** 5475
- **H+:** 5475
- **Potassium (K):** 5475

**Histopathology**

- **Specimen processed:** 580
- **No. of blocks:** 2,178
- **Total No. of slides:** 3519

**Microbiology samples**

- **Total Culture:** 18,952
- **Positive:** 5,161
- **Sensitivity:** 5,161
- **Procalcitonin:** 7,395
- **HIV (Spot+Vidas):** 1,738
- **HBsAg (Spot+Vidas):** 1,647
- **HCV:** 1,461
- **Hospital Infection Control:** 4,555
- **Total:** 46,070

**Radiology**

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No. of voluntary blood donation camps: 6

Infectious Marker Laboratory and Donor Counselling

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<td><strong>11,400</strong></td>
<td><strong>159</strong></td>
<td><strong>1,148</strong></td>
<td><strong>109</strong></td>
<td><strong>11,187</strong></td>
<td><strong>32</strong></td>
<td><strong>10,511</strong></td>
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Number of Donor and Patient Grouping done

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<th>Month</th>
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<td>April 2018</td>
<td>864</td>
<td>1,187</td>
<td>2,051</td>
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<tr>
<td>May 2018</td>
<td>806</td>
<td>1,345</td>
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<td>June 2018</td>
<td>917</td>
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<tr>
<td>July 2018</td>
<td>785</td>
<td>1,355</td>
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<tr>
<td>Month</td>
<td>No. of PRBC issued</td>
<td>FFP issued</td>
<td>PRC issued</td>
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<tr>
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<td>--------------------</td>
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<tr>
<td>April 2018</td>
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<td>965</td>
<td>619</td>
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<td>May 2018</td>
<td>912</td>
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<tr>
<td>June 2018</td>
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<td>822</td>
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<td>July 2018</td>
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<td>760</td>
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<td>November 2018</td>
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<td>776</td>
</tr>
<tr>
<td>January 2019</td>
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<td>February 2019</td>
<td>763</td>
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<td>March 2019</td>
<td>825</td>
<td>1,058</td>
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<td>Total</td>
<td>10,967</td>
<td>8,538</td>
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Blood and components issued to other hospital Blood Banks (Main AIIMS, CNC, GB Pant, LNH, ESI, Dr Hedgewar)

<table>
<thead>
<tr>
<th>Month</th>
<th>Blood Issued</th>
<th>Blood Received</th>
<th>FFP Issued</th>
<th>FFP Received</th>
<th>PRC Issued</th>
<th>PRC Received</th>
<th>Cryo Issued</th>
<th>Cryo Received</th>
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<td>May 2018</td>
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<td>0</td>
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<td>121</td>
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<tr>
<td>February 2019</td>
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<td>0</td>
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<tr>
<td>March 2019</td>
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<td>550</td>
<td>0</td>
<td>10</td>
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<tr>
<td>Total</td>
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<td>258</td>
<td>1,785</td>
<td>nil</td>
<td>100</td>
<td>247</td>
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Emergency Department patient’s data

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<th>MLC</th>
<th>Non-MLC</th>
<th>Criticality</th>
<th>Mode of Injury</th>
<th>Medical examination</th>
</tr>
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<tbody>
<tr>
<td>Red</td>
<td>Yellow</td>
<td>Green</td>
<td>Black</td>
<td>Fall</td>
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<tr>
<td>44,175</td>
<td>34,349</td>
<td>5,502</td>
<td>18,229</td>
<td>51,099</td>
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AIIMS 2018-19 / 705
Dr Abhinav Kumar participated as Faculty at Suturing workshop organized by Department of Surgical Disciplines, AIIMS, 7 April 2018; Chaired the session for Competitive paper presentation at ENDOSURG 2018 (19-22 April 2018), organized by Department of Surgical Disciplines, AIIMS, New Delhi; Chaired the session in MEDSICON 2018 (26-29 April 2018) organized by Department of Surgery, VMCC and Safdarjung Hospital, New Delhi; Participated as Fellow in the International Course on Trauma System and Mass Casualty Management (3-14 June 2018), organized by RAMBAM Health Care Campus, Haifa, Israel; Participated as Fellow in training programme on “Building Organizational Excellence Focus: Synergy of IT and HR” (28 January-1 February 2019), by National Productivity Council, Under Ministry of Commerce and Industry, Government of India.

Professor Adarsh Kumar was elected Governing Council Member of International Academy of Legal Medicine (IALM) for 2019-2021; Award of Excellence in View of Outstanding Service to Medical Profession by MN Barman Charitable Trust, Guwahati at Government Medical College, Tezpur, Assam, 9 October 2018; Elected as Governing Council Member of Indo-Pacific Association of Law Medicine and Science (INPALMS) for 2016-2019; Nominated as Board of Studies-External Expert Member (Forensic Medicine and Forensic Sciences) by Kasturba Medical College, Manipal Academy of Higher Education, Manipal, Karnataka for 2017-2019; Member, Asia Pacific MedicoLegal Association (APMLA) for another term of 2 years, 2018-2020; Medicolegal Expert to National Human Rights Commission, Central Bureau of Investigation; Member, Editorial Board of Various Journals: International Editorial Board Member—H二氧化物 Journal of Forensic, Legal and Investigative Sciences (USA); Egyptian Journal of Forensic Sciences, Egypt, Adli Tip Bulletin, Turkey; The Egyptian Journal of Forensic Sciences and Applied Toxicology; Associate Editor, Medicolegal Update, Journal of Research in Medical Education and Ethics; Web Editor, International Journal of Health Research and Medicolegal Practice; Member, Editorial Board, Journal of Indian Society of Toxicology; Journal of Karnataka Medicolegal Society; Indian Journal of Community and Family Medicine; Indian Journal of Forensic Medicine and Toxicology; Journal of Forensic Chemistry and Toxicology; Chairman, Scientific Committee, 9th International Conference “IAMLE-2018” held at Dr DY Patil Medical College, Pune, Maharashtra on 26-28 October 2018 and organized workshop on “Sudden Cardiac Death Investigations” as preconference activity.

Professor Amit Gupta was member, International Relations Committee: American, Association for Surgery of Trauma (AAST), American College of Surgeons–Committee on Trauma, USA; Member Expert Committee for Faculty Selection: Institute of Medical Sciences, Banaras Hindu University; Member Technical Resource Group: For Finalization of Minimum Standards for Trauma Care Facilities in India, Trauma and Burns Care Division, Ministry of Health and Family Welfare, Government of India, 2018-till date; Member Technical Group: Drafting and Review of Curriculum for the First Aid Module for the Community; WHO and Ministry of Health and Family Welfare, Government of India, 2018-2019; Member Expert Group: For development of materials under the IEC activities of National Programme for Trauma Care, Ministry of Health and Family Welfare, Government of India, 2018; Member Expert Group: Handbook on Prevention of Accidents and Awareness on First Aid, National Programme for Trauma Care, Ministry of Health and Family Welfare, Government of India, 2018; Member, Steering Committee for Commissioning of Trauma Centre at SGPGI, Lucknow, 2018 Onwards; Member, Expert Committee CATS: To formulate the tender documents for outsourcing the operations and maintenance of CATS Ambulance Services, Government of NCT Delhi, 2018-2019; Member, Experts Group NIHFW, For the standardization of training material on Hospital preparedness for Health Emergencies for Senior Hospital Administrators, 2018; Member, Experts Group NIHFW, For the standardization of training material on Hospital preparedness for Health Emergencies for District Health Officers, 2018; Member, Expert Group: Establishing the feasibility of a taxi-based dispatcher coordinated layperson emergency medical system for use in low- and middle-income countries; University of Chicago and TRIPP IIT Delhi, 2018; Member, Committee for purchase of First Responder Vehicles to improve the emergency response service in Delhi, Government of NCT Delhi, 2017-2019; Member, Medical Board for Medical/Psychological Examination at AIIMS for Antarctic Expedition Team, 2016 to till date; Member, Committee on Hindi Rajbhasha, Jai Prakash Narayan Apex Trauma Centre, AIIMS, New Delhi, 2016 to till date; Member, Technical Committee to revise the “Protective Helmets for Two Wheeler Riders-Specification” (IS 4151:2015) to develop acceptable Helmet design for India, MoRTH, Government of India, 2016-2018; Member, (RTAG-RTS) Regional Technical Advisory Group on Road Traffic Safety WHO South East Asian Region Office, 2015-2018; Member, Technical sub-committee for developing National Trauma System Plan, Dte. General of Health Services, MoHFW, Government of India, 2014 to till date; Regular Member, H-1 Committee, Transport Planning, Traffic engineering of the Indian Roads Congress, 2015-till date.

Dr Ashish Bindra conducted Cadaveric Interventional Pain Management Workshop on October 2018 at Cadaveric Training and Research Facility, JPN Trauma Centre, New Delhi.

Professor Atin Kumar delivered NG Gadkar Oration of Indian College of Radiology and Imaging 2018; Elected ‘President Elect’ of Delhi Chapter of Indian Radiological and Imaging Association for 2019; Worked as Treasurer of Delhi Chapter of Indian Radiological and Imaging Association for 2018; Organising Secretary of CME on IR Primer on Basics of Angiography, Embolisation and Sclerotherapy.
Professor Deepak Kumar Gupta: First book on Craniosynostosis as Editor written by Dr Deepak Kumar Gupta: Tenets of Craniosynostosis: Surgical principles and advanced multidisciplinary care, 2018 (Thieme Medical and scientific publishers private limited) (Editor: Deepak Kumar Gupta, Ashok Kumar Mahapatra); ANTC 2018, 26-28 October, 5 AIIMS NEU-ROTRAUMA CONFERENCE, October 2018, New Delhi; AIIMS Annual Micro neurosurgery Workshop, 13-14 February 2019, New Delhi; INDSPNCON 2019, 15-17 February; Annual Conference of Indian Society for Paediatric Neurosurgery, February 2019, New Delhi.

Dr Dinesh Kumar Bagadia participated in Endosurg 2018 as chairperson for live operative workshops (20-22 April 2018); Organized following Trauma First Responder workshops for commoner in collaboration with IRSC (Indian Road Safety Campaign, IIT New Delhi) at KIIT University, Gurugram, Vidy Mandir Public School, New Delhi, Suman Vidy Man, IIT, New Delhi and DTU; Organizing Secretary of 2nd National Conference of Indian Society of Clinical Nutrition at AIIMS, New Delhi (31 August-2 September 2018); Participated as Faculty and Moderator in iSAFE Mega event on 30 October 2018 at Delhi Technical University; Participated in WHO conference on Road Safety Legislation and Multisectoral Action at New Delhi (13-14 December 2018); Participated as Trauma Care expert in 3rd World Sustainable Development Summit on Road Safety Policies at New Delhi (11-13 February 2019); Participated as faculty in AIIMS Trauma Assessment and Management course at Badshah Khan Civil Hospital, Faridabad on 22 November 2019.

Dr Guru Dutta Satyarthee received Faculty Research Awards 2018 in Neurosciences Conferred by Honorable Union HRD; Minister Mr Prakash Javadekar; Lifetime Achievement Award 2019, Marquis Who’s Who, America; Whos Who in World 2019, Marquis Who’s Who, America.

Dr Gyaninder Pal Singh organised the “AIIMS Neuroanaesthesia Update 2018” from 2-4 November 2018 at AIIMS, New Delhi; Cadaveric Airway Workshop, 23 September 2018, JPNATC, AIIMS, New Delhi; Cadaveric Interventional Pain Management Workshop as Course Coordinator on 23 September 2018, JPNATC, AIIMS, New Delhi.

Professor Kamran Farooque was Course Director of “Basic Spine Workshop” in DOACON 2018 on 22 November 2018 at JPNATC, AIIMS, New Delhi

Dr Keshav Goyal was awarded preceptorship in Neurocritical Care and Visiting Neurological intensive care as an observer to Cleveland Clinic, Ohio, USA from March-May 2018; Awarded preceptorship in Anaesthesiology institute and Visiting Neuroanaesthesiology Department as an observer to Cleveland Clinic, Ohio, USA from May to June 2018; Awarded ISNACC Travel Grant for 2018-2019 by National Society of Neuroanaesthesiology and Critical Care (ISNACC); Member of Core Faculties of AIIMS Advanced Care Life Care Support (ACLS); Introductory course in September 2015 at JPNATC, New Delhi; Renewed ACLS and BLS instructor status, November 2018; Emergency Neurological Life Support (ENLS) Instructor Recertification, November 2018; Course director cum Coordinator of 1st Acute Neuro Care (ANC) affiliated by National Society (ISNACC) January 2019 at Artemis Hospital, Gurgaon; Member of Trainee Engagement Committee of SNACC, USA; Reviewer of International Journal of Respiratory and Pulmonary Medicine; Executive member of organizing committee of AIIMS Neuroanaesthesia Update 2018, 3rd Cadaveric Chronic Pain Workshop, 1st Acute Neuro Care (ANC), Course Director and Coordinator.

Dr Narender Choudhary participated as Faculty at Suturing workshop organized by Department of Surgical Disciplines, AIIMS on 7 April 2018; Chair the session for competitive paper presentation at ENDOSURG 2018 (19-22 April 2018) organized by Department of Surgical Disciplines, AIIMS, New Delhi; Chair the session in MEDSICON 2018 (26-29 April 2018), organized by Department of Surgery, VMMC and Safdarjung Hospital, New Delhi; Participated as Fellow in the International Course on Trauma System and Mass Casualty Management (3-14 June 2018), organized by RAMBAM Health Care Campus, Haifa, Israel; Participated as coordinator for workshop on primary survey in trauma victim at OIL India Medimeet (2-3 February 2019), organized at Duliajan, Assam.

Dr Navdeep Sokhal successfully organised “AIMS Critical Care Course for Interns” as Course Director on 8-9 December 2018. In this course Interns were trained for various lifesaving skills on mannequins and taught basic concept of critical care; Conducted cadaveric pain workshop as a course coordinator on 13 October 2018; Organised 5th Cadaveric Airway Management Workshop as Course Coordinator on 23 September 2018; Participated as faculty in AIIMS Neuroanaesthesia Update held in AIIMS on 2-4 November 2018; Participated as faculty in Acute Neuro Care (ANC) course on 13-14 February 2019 held at Artemis Hospital, Gurugram; Participated as faculty in 20th Annual Conference of ISNACC 2019 on 15-17 February 2019 in Gurugram; Trained residents to do Percutaneous Tracheostomy (PCT).

Dr Neeraj Kumar pursuing Part Time Clinical Research Methodology and Evidence Based Medicine at AIIMS, New Delhi, January 2019; Instructor (Faculty) of ANLS, ACCC, AIIMS—EM-SONO, AUTLS, AIIMS cadaver airway, Interventional pain management workshop courses; As a faculty of ORBO team facilitates knowledge, awareness amongst the hospital staff and also actively involved in procedures related to organ procurement; AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018 at AIIMS, New Delhi
Dr Pratyusha Priyadarshini chaired live operative workshop on Breast and Endocrine Surgery at ENDOSURG 2018 (19-22 April 2018), organized by Department of Surgical Disciplines, AIIMS, New Delhi; Organizing Secretary of 2nd National Conference of Indian Society of Clinical Nutrition at AIIMS, New Delhi (31 August-2 September 2018).

Professor Purva Mathur delivered Dr Ajita Mehta Oration on “Surveillance of HAI”, IDCC, Hinduja Hospital, 17 September 2018.

Dr Richa Garg was Course Director of the 2 days course “Acute critical care course” held for interns at AIIMS in December 2018; Core faculty of the Quality Improvement Programme at AIIMS; Regular faculty for the organ donation teaching with ORBO at AIIMS.

Professor Arulselvi S Co-Authored a Paper Presentation on A Study “Assessment of Platelet Function in Traumatic Brain Injury Patients with Thrombocytopenia Using Flowcytometry” in ANTC 2018, 4th AIIMS Neurotrauma Conference, Held in AIIMS, New Delhi, 27-28 October 2017 and Won the First Paper Award; Co-Authored a Paper Presentation on a Study “Correlation of Microalbuminuria with Traumatic Brain Injury and Its Outcome—A Longitudinal Study at Level 1 Trauma Centre” in ANTC 2018, 4th AIIMS Neurotrauma Conference, Held in AIIMS, New Delhi, 27-28 October 2017 and Won the Second Award; Co-Authored a Paper Presentation on a Study “Flowcytometric Analysis of Platelet Function in Trauma Patients with Thrombocytopenia” In the 11th Annual Conference and Workshops organized by the Cytometry Society, India, 29-31 October and 1 November 2018, held in All India Institute of Medical Sciences, New Delhi, held in AIIMS, New Delhi, 27-28 October 2017 and Won the Second Best Paper Award.

Professor Sanjeev Kumar Bhoi did AIIMS Ultrasound Trauma Life Support (AUTLS) to train the doctors to empower trauma resuscitation; AIIMS Ultrasound Trauma Life Support Course for Nurses (AUTLSN) to train the nurses to empower trauma resuscitation; AIIMS Basic Emergency Care Course (AIIMS-BECC) to train Doctors, Nurses, Paramedics and lay persons in basic emergency skills and CPR; In Hospital management of Mass Casualty Incidents (A module for disaster responsiveness and mitigation prepared by us in collaboration with CDC Atlanta); AIIMS Emergency Sonography Course (EM SONO); AIIMS Disaster Ultrasound Course for Doctors, Nurses and Paramedics; AIIMS Paediatric Ultrasound Course for Paediatricians and Emergency Physicians; Ultrasound guided vascular access for doctors; Ultrasound in Primary Health Care for Primary Care Physicians; Ultrasound Guided Nerve Block in Emergency for doctors; AIIMS Trauma Life Support with Power of Ultrasound for doctors; AIIMS Triage Protocol Workshop for Doctors, Nurses and Paramedics; Basic ECG Workshop for Nurses; Tactical Combat Casualty Care Course for CRPF Jawans; Capacity building for the strengthening emergency care in primary health care setting for Doctors, Nurses and Paramedics; AIIMS first responder course for paramedics and lay persons; participated/conducted 1st International Conference and Workshop on Cost Effective Use of Technology in Health Neuroscience, 28-31 March 2019, Goa; Advance Ultrasound trauma life support ATSSF, 14-15 September 2018, JPNATC, New Delhi; Annual National Conference of Pedi STARS shaping the safety culture, 27 February-3 March 2019, AIIMS, New Delhi; Basic ECG for Nurses JPN Apex Trauma Centre, 23 June 2018, AIIMS, New Delhi; Basic ECG for Nurses New Emergency, 25 July 2018, AIIMS, New Delhi; Basic Emergency Care Course ATSSF, 20 September 2018, JPNATC, New Delhi; Basic Emergency Care Course ATSSF, 25 October 2018, JPNATC, New Delhi; Basic Emergency Care Course for CRPF ATSSF, 22 November 2018, JPNATC, New Delhi; Basic Emergency Care Course for CRPF ATSSF, 13 December 2018, JPNATC, New Delhi; Basic Life Support JPN Apex Trauma Centre, 9 July 2018, AIIMS, New Delhi; BECC/BLS Training for CRPF ATSSF, 8-9 August 2018, JPNATC, New Delhi; Cadaveric advanced ultrasound guided preoperative and regional anaesthesia workshop, 1-13 January 2019, New Delhi; Comprehensive Life Support Course for BRO ATSSF, 26 October 2018, JPNATC, New Delhi; Comprehensive Life Support Course, JPN Apex Trauma Centre, 12 April 2018, AIIMS, New Delhi; EM India 2018 Banaras Hindu University, 21-22 July 2018, Varanasi, UP; EM Sono ATSSF, 10-11 August 2018, JPNATC, New Delhi; Emergency Medicine (Department Class) ATSSF, 4 August 2018, JPNATC, New Delhi; Emergency Medicine Sonography EMSONO Course, 14-15 April 2018 JIPMER, Puducherry; First Aid in Trauma Course Seminar Room, 27 September 2018, JPNATC, New Delhi; First Aid in Trauma Course Seminar Room, 30 July 2018, JPNATC, New Delhi; Inaugural Ceremony of THIIMHS Medical College and Emergency Department Site Visit, 1 August 2018, THIIMHS, Arunachal Pradesh; Indosurg 2019 (13th AIIMS Surgical Week), 28-31 March 2019, AIIMS, New Delhi; Instructor and leadership meeting of nursing of instructors, JPN Apex Trauma Centre, 13 June 2018, AIIMS, New Delhi; Instructor Course for Rajasthan Doctors ATSSF, 26 November 2018, JPNATC, New Delhi; Meeting of programme managers for road safety and injury prevention to support implementation of the PHUKET Commitment, 12-14 November 2018, Kathmandu, Nepal

Professor Shivanand Gamanagatti was Fellow of Indian College of Radiology; Dr Diwan Chand Agarwal Memorial Oration: Imaging, Interventions and future in hepatocellular carcinoma, 72nd Annual Conference of IRIA, PGIMER, Chandigarh.

Professor Subodh Kumar was nominated as Member of Oversight Committee of Bhopal Memorial Hospital and Research Centre (BMHRC), Bhopal by Department of Health Research, MOHW Government of India; Nominated as Member of Oversight Committee for Institute of Medical Sciences, Banaras Hindu University, Varanasi by NITI Ayog, Government
of India; External Examiner for MS (Surgery) at MLB Medical College, Jhansi, Bundelkhand University, UP; Expert Member of Faculty Selection Committee of Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGIMS), Lucknow; Member of Ethics Sub Committee of Medical Council of India, Government of India; Member of Institutional Ethics Committee of All India Institute of Medical Sciences, New Delhi; Member of AIIMS Endowment Fund Scientific Advisory Committee and Fund Promotion and Investment Committee, AIIMS, New Delhi; Assessor for National Board of Examination, Government of India.

Professor Sushma Sagar led the training of 800 students for first responder programme organized by Indian Road Safety Campaign run by Delhi IIT students at DTU Delhi on 30 October 2018; Member Dean Committee for DM student re-dressal, AIIMS, Delhi; Member Intramural Research Project Grant Committee, AIIMS, Delhi; Member Women Grievance Cell Committee, AIIMS, Delhi; Member Research Committee to approve selection of research scholars at AIIMS, Delhi; Member Poster Exhibition Committee for 1st AIIMS Research Day Celebration; Internal examiner for 1st AIIMS MCh examination of Trauma Surgery and Critical Care at AIIMS, Delhi; External expert for selection committee for faculty recruitment at AIIMS, Rishikesh; MOHFW nominee as Secretary for Delhi Organ Transplant Committee; Expert member to inspect for starting of academic courses in Trauma and Critical Care at AIIMS Patna; Chief Guest on the occasion of World Trauma Day, organized by Department of Trauma Surgery at AIIMS, Rishikesh; Core teaching faculty member for NIDM (National Institute of Disaster Management); Medical expert member for iSafe, an initiative by IRSC (Indian Road Safety Campaign) by IIT Delhi students; Medical expert member for initiative on safer roads for Gurugram in collaboration with UNITAR AB InBev; Member Technical Group for Drafting and Review of Curriculum for the First Aid Module for the Community, WHO and MOHFW Government of India.

Dr Tej Prakash Sinha participated/conducted AIIMS Ultrasound Trauma Life Support (AUTLS) to train the doctors to empower trauma resuscitation; AIIMS Basic Emergency Care Course (AIIMS-BECC) to train doctors, nurses, paramedics and lay persons in basic emergency skills and CPR; Emergency Sonography Course (EM SONO); Disaster Ultrasound Course for doctors, nurses and paramedics; Ultrasound guided vascular access for doctors; Triage protocol workshop for doctors, nurses and paramedics; Basic ECG workshop for nurses; Capacity building for the strengthening emergency care in primary health care setting for Doctors, Nurses and Paramedics; AIIMS first responder course for paramedics and lay persons; Advance Ultrasound trauma life support course, ATSSF, 14-15 September 2018, JPNATC, New Delhi; AUTLS course at MEDINSPIRE 2019 conference, 14 February 2019, DY Patil University, Mumbai; Basic ECG for Nurses JPN Apex Trauma Centre, 23 June 2018, AIIMS, New Delhi; Basic ECG for Nurses New Emergency, 25 July 2018, AIIMS, New Delhi; Basic Emergency Care Course for CRPF ATSSF, 8-9 August 2018, JPNATC, New Delhi; Basic Emergency Care Course ATSSF, 20 September 2018, JPNATC, New Delhi; Basic Emergency Care Course ATSSF, 25 October 2018, JPNATC, New Delhi; Basic Emergency Care Course for CRPF ATSSF, 13 December 2018, JPNATC, New Delhi; Basic Emergency Care Course for CRPF ATSSF, 22 November 2018, JPNATC, New Delhi; Basic Life Support Course JPN Apex Trauma Centre, 9 July 2018, AIIMS, New Delhi; Cadaveric advanced ultrasound guided preoperative and regional anaesthesia workshop, 11-13 January 2019, New Delhi; Comprehensive Life Support Course for BRO ATSSF, 26 October 2018, JPNATC, New Delhi; Comprehensive Life Support Course JPN Apex Trauma Centre, 12 April 2018, AIIMS, New Delhi; EM SONO Course ATSSF, 10-11 August 2018, JPNATC, New Delhi; Emergency Department Site Visit and Inaugural Ceremony of THIIMS Medical College, 1 August 2018, TRIHMS, Naharlagun, Arunachal Pradesh; EMINDIA 2018 National Emergency Medicine Conference, Banaras Hindu University, 21-22 July 2018, Varanasi, UP; First Aid in Trauma Course Seminar Room, 27 September 2018, JPNATC, New Delhi; First Aid in Trauma Course Seminar Room, 30 July 2018, JPNATC, New Delhi; Medwork 2018 conference, Rohilkhand Medical College and Hospital, 7-8 April 2018, Bareilly, UP; Meeting of programme managers for road safety and injury prevention to support implementation of the PHUKET Commitment, 12-14 November 2018, Kathmandu, Nepal; Meeting to develop “Regional Strategy to integrate Emergency and Trauma Care into Primary Health Care (PHC) in SEAR”, 23-25 August 2018, Bangkok, Thailand; Preparatory meeting for Promulgation of Emergency Nursing in SEAR, 2-4 April 2018, AIIMS, New Delhi; Rajasthan Capacity Building Programme Instructor Course ATSSF, 26 November 2018, JPNATC, New Delhi; Rajasthan Capacity Building Programme, Provider Course ATSSF, 16-18 November 2018, JPNATC, New Delhi; SIMULUS 4 the 4 Annual National Conference of pediSTARS India, 27 February-3 March 2019, AIIMS, New Delhi; Symposium on Trauma Management and Injury Prevention, JPN Apex Trauma Centre, 20-21 April 2018, AIIMS, New Delhi; Tactical Combat Casualty Care (CRPF) ATSSF, 15 February 2019, JPNATC, New Delhi; Tactical Combat Casualty Care Course for CRPF, JPN Apex Trauma Centre, 18 April 2018, AIIMS, New Delhi; Tactical Combat Casualty Care Course for CRPF, JPN Apex Trauma Centre, 11 May 2018, AIIMS, New Delhi.

Professor Vijay Sharma: 3rd AIIMS Cadaveric Pelvic-Acetabulum Course on 14-15 April 2018 at JPNATC, AIIMS, New Delhi; Pre Conference Cadaveric Pelvic-Acetabulum workshop, DOACON 2018 on 22 November 2018 at ACSST, AIIMS, New Delhi.

Professor Vivek Trikha was Associate Editor of Indian Journal of Orthopaedics, National Journal of Indian Orthopaedic Association (Pubmed Indexed Journal); Associate Editor of Journal of Clinical Orthopaedics and Trauma (Pubmed indexed journal).
10.6. National Drug Dependence Treatment Centre

Professor and Chief
RK Chadda

Professors
Raka Jain
Sonali Jhanjee

Associate Professor
Rakesh Lal
Anju Dhawan
Atul Ambekar

Associate Professor
Yatan Pal Singh Balhara
Gauri Shanker Kaloiya
Ashwani K Mishra
Ravindra Rao
Rachna Bhargav

Assistant Professor
Prabhu Dayal
Biswa C Chatterjee
Rizwana Quraishi
Alok Agrawal
Piyali Mandal
Siddharth Sarkar
Roshan Bhad

Scientist
Monica Mongia

Medical Social Service Officer
Braham Prakash
Alok Agrawal
Ratnesh Kumar
Dinesh Kumar

Senior Administrative Officer
Ajay Kumar (upto May 2018)
Renu Bharadwaj (From October 2018)

Administrative officer
Anita Tete (May–October 2018)

Accounts Officer
Meenakshi Dabral

Assistant Nursing Superintendent
Radhamani Nair

Assistant Store Officer
ML Arya (upto July 2018)
RP Rai JSO (July–September 2018)
Manohar Lal Arya (October 2018–March 2019)
Yatendra Kumar (March 2019)

HIGHLIGHTS
NDDTC continues to be the WHO Collaborating Centre on Substance Abuse since 2012. During 2018-2019, the centre has progressed with regard to treatment, training and research in area of drug abuse. A total of 2,21,947 patients were seen: 10,681 new patients and 2,11,266 old patients inclusive of regular OPD, 4 community clinics and 3 speciality clinics. The
NDDTC laboratory attended to more than 90,000 samples during the year in its toxicology, haematology, biochemistry and HIV screening labs. The laboratory has currently the facility to detect 19 types of addictive substances.

Some major ongoing of NDDTC activities involve: Developing and implementing training mechanism for use of Essential Narcotic Drugs (ENDs) for treatment of opioid dependence, and detection of new psychoactive substances among substance abuse treatment seekers in India, funded by the Department of Revenue, Ministry of Finance, Government of India. NDDTC continued to be a ADR Monitoring Centre for Pharmacovigilance Programme of India.

Many faculty members are technical experts and are also holding key positions in national and international professional bodies and editorial boards in prestigious peer-reviewed journals. Several faculty members are recipient of professional honors and awards.

Currently, many National and International agencies are funding ongoing research projects in the centre. More than 100 articles in various peer reviewed national and international journals and many books/chapters in books/reports have been published during this period.

NDDTC also offers PhD in Addiction Psychiatry. The centre is also running Doctorate of Medicine (DM) course in Addiction Psychiatry. First batch passed out in December 2018.

NDDTC started CL addiction psychiatry service from 1 February 2019. Mobile Methadone Clinic of NDDTC, one of the first of its kind in Asia has been launched on 22 March 2019 at Seemapuri, East Delhi.

A Symposium was organized by the DM and MD residents on the occasion of International Day Against Drug Abuse and Illicit Trafficking on 26 June 2018 at AIIMS. Target audience was UG and PG students at AIIMS.

Report of the “National Survey on Extent and Pattern of Substance Use in India”, Supported by the MSJE, GOI, was released in February 2019. This survey is one of the largest epidemiological study on substance use disorders in the world. It included all States and UTs.

EDUCATION

Undergraduate

MBBS students are posted for a day in the centre during their Psychiatry posting.
**Postgraduate**

Residents doing MD (Psychiatry) are posted for in the centre for 6 months. Eleven candidates are doing DM in Addiction Psychiatry.

**PhD and Postgraduate teaching**

- *Journal club—Weekly joint activity with psychiatry*
- *CCR and CGR, two in every semester at AIIMS*
- Seminar—Weekly
- Case Conference—Weekly
- Seminars/Journal Club

*Joint activities of the Department of Psychiatry and the National Drug Dependence Treatment Centre*

**CMEs/Workshops/Symposia/National and International Conferences**

**Lectures delivered**

**RK Chadda**

1. C-L Psychiatry in low resource settings: Meeting the challenge, National CME on Consultation Liaison Psychiatry, 9 April 2018, New Delhi
2. Management of substance use: Public health approach, Mid Term CME of Indian Association of Private Psychiatrists—Delhi Chapter, 24 June 2018, New Delhi
3. Panel discussion on substance use, Panel International Day on Drug Use, UNODC ROSA, 21 June 2018, New Delhi
4. Capacity assessment in criminal cases, PG Development Programme, Indian Psychiatric Society, 30 June 2018, New Delhi
7. Metabolic syndrome: Guideline development and focus on evidence based approach and cultural issues, Annual Conference of the Indian Psychiatric Society, North Zone, 6-7 October 2018, Chandigarh
8. Principles and possibilities of prevention in psychiatry, Annual Conference of Indian Psychiatric Society, East Zone, 26-28 October 2018, Bhopal Gaya
9. Drug addiction and indian culture: Preventive approaches for drug addiction, 20th Annual Meeting of the International Society of Addiction Medicine, 2-5 November 2018, Busan, South Korea
10. Prescription drug abuse—Challenges, 20th Annual Meeting of the International Society of Addiction Medicine, 2-5 November 2018, Busan, South Korea
19. Substance us in children in NE states: Existing scenarios and strategies, Regional Level Consultation on Drug/Substance Use among Children in NE States, 26 March 2019, Guwahati
Raka Jain
1. Facing the challenge of newer psychoactive substances, 15th Annual Day celebration of NDDTC, 13 April 2018, Ghaziabad
2. Drug addiction and Indian culture title: Cultural causes and related issues: 20th International Society of Addiction Medicine (ISAM 2017), 3-6 November 2018, Busan, South Korea

Rakesh Lal
1. Attitudes of medical personnel towards opioid prescription, CMC Alumni Meeting, 4-7 October 2018, Houston, USA

Anju Dhawan
1. Adolescent substance abuse: Intervention across settings, Annual Day Symposium on “Strengthening the National Program for Drug Addiction Treatment”, 13 April 2018, Ghaziabad
2. Substance use disorders in adolescents and children, National CME Psychiatry on Substance Use Disorders: Newer Dimensions by Department of Psychiatry, Base Hospital, Delhi Cantt, 14 April 2018, New Delhi
3. Identification and Management of Substance Use among School Children, Capacity Building Programme on Substance Abuse by SCERT, 8 August 2018, New Delhi
4. Annual Conference of the International Society of Addiction Medicine 2019 in Delhi, Annual Conference of the ISAM 2018, 2 November 2018, Busan, South Korea
5. Adolescent substance use in school settings, Consultation meeting of SCERT for Drug Demand Reduction, 3 January 2019, New Delhi
6. Substance use in school settings, Sensitization of pre service trainee teachers, 21 February 2019, New Delhi
7. Preventive counseling: A hands on perspective for issues related to substance abuse among youth, VIVECHANA, The Counselling Space by Sri Sri University, 23-24 March 2019, Bhubaneswar
8. Vulnerability of children and students to substance use, 7th National FINGODAP Conference, 30 March 2019, New Delhi

Sonali Jhanjee
1. Overview of treatment and pharmacological management of tobacco dependence, Symposium on Tobacco Cessation, 16 November 2018, New Delhi
2. Tobacco cessation and substance abuse, The National Seminar on Tobacco Cessation: Beyond the 5As, 2 August 2018, New Delhi
3. E-cigarettes as an emerging policy concern, ISAM Annual Meeting, 4 November 2018, Busan, Korea

Atul Ambekar
1. Cannabis: The final word, RISE 2018, organized by the Behavioural and Neurosciences Academy of India, 11 May 2018, Goa
2. Data collection and analysis for drug use epidemiology: An overview, Training Programme on “Planning and designing of large scale sample surveys” for officers of Indian Statistical Service, National Statistical Systems Training Academy (NSSTA), 19 June 2018, Greater Noida
3. Cannabis: From neurobiology to policy, Mid Term CME of IPS East Zone, 18 August 2018, Dibrugarh
5. Sleep and opioids: Neurobiology and clinical aspects, Global Conference of Biological Psychiatry, 25 August 2018, Mumbai
6. Drug laws and policies: Scientific arguments for criminalization and de-criminalization, Training programme for judiciary, Delhi Judicial Academy, 15 September 2018, New Delhi
7. Abuse of pharmaceutical drugs in India, Training programme for Drug Law Enforcement officers National Academy of Customs, Indirect Tax and Narcotics (NACIN), 19 September 2018, Faridabad
8. Pharmaceutical drug use—South Asia, Training programme for officers from Department of Narcotics Control, Bangladesh, National Academy of Customs, Indirect Tax and Narcotics (NACIN), 26 September 2018, Faridabad
10. Drug demand reduction strategies, Anti Addiction Day Symposium organized by SKIMS, Srinagar, 2 October 2018, Srinagar
11. MHCA 2017: Implications for addiction treatment in India, Annual Conference of Indian Psychiatric Society—Rajasthan State, 20 October 2018, Bikaner
15. Opioid Substitution Treatment (OST) is the best strategy for management of Opioid Use Disorders, (Debate – For), National Conference of Indian Association of Private Psychiatry (ANCIAPP), 1 December 2018, Hyderabad
16. Abuse of pharmaceutical drugs in India, Training programme for Drug Law Enforcement Officers from Myanmar, National Academy of Customs, Indirect Tax and Narcotics (NACIN), 6 December 2018, Faridabad
17. Preventing substance use: What works, what doesn’t, National CME of Preventive Psychiatry Section of Indian Psychiatric Society, 8 December 2018, Patna
18. Policy and legal issues related to opioid analgesics in palliative care and addiction treatment, Workshop “opioids in palliative care” organized by FDA, Punjab, 18 December 2018, Chandigarh
22. Drug abuse scenario in India, vulnerable population and treatment services, Interactive Workshop under National Action Plan for Drug Demand Reduction organized by the National Institute of Rural Development and Panchayati Raj, 1 February 2019, Hyderabad
23. Magnitude of substance use in India, Panel Discussion on ‘10 years of Drug Policy in Asia: How far we have come?’, 20 February 2019, New Delhi
24. Drug use situation in India, Training programme for Drug Law Enforcement Officers from NCB, National Academy of Customs, Indirect Tax and Narcotics (NACIN), 25 February 2019, New Delhi
26. Preventing substance use: What works what doesn’t, Annual Psychology Festival, Aryabhata College, Delhi University, 1 March 2019, New Delhi
27. Magnitude of substance use in India, Annual Meeting of NARCORD, Ministry of Home Affairs, 12 March 2019, New Delhi

YPS Balhara

1. Opioid use disorders, CME of Indian Psychiatric Society, Odisha State Branch, 16 September 2018, Bhubaneswar, Odisha
2. Neurobiology of the brain, Training on the Universal Treatment Curriculum for Substance Use Disorders (UTC) by The Colombo Plan Drug Advisory Programme (CPDAP), 12 December 2018, Nairobi, Kenya
3. Medications used to treat alcohol dependence, Training on the Universal Treatment Curriculum for Substance Use Disorders (UTC) by The Colombo Plan Drug Advisory Programme (CPDAP), 13 December 2018, Nairobi, Kenya
4. Comprehensive MAT program, Training on the Universal Treatment Curriculum for Substance Use Disorders (UTC) by The Colombo Plan Drug Advisory Programme (CPDAP), 14 December 2018, Nairobi, Kenya
5. Evolving field of co-occurring disorders, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 7 May 2018, Ulaanbaatar, Mongolia
6. Key concepts for co-occurring disorder treatment, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 7 May 2018, Ulaanbaatar, Mongolia
7. Co-occurring anxiety disorders and SUD, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 8 May 2018, Ulaanbaatar, Mongolia
8. Co-occurring ADHD and SUD, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 9 May 2018, Ulaanbaatar, Mongolia
9. Common co-occurring medical disorders, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 10 May 2018, Ulaanbaatar, Mongolia
10. Treatment engagement and retention, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 10 May 2018, Ulaanbaatar, Mongolia
11. Assessment for SUD, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 11 May 2018, Ulaanbaatar, Mongolia
12. Addiction severity Index, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 12 May 2018, Ulaanbaatar, Mongolia
13. Psychoactive substances and how they affect the CNS, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 16 May 2018, Ho Chi Minh City, Vietnam
14. Categories of factors affecting treatment outcome, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 16 May 2018, Ho Chi Minh City, Vietnam
15. Continuum of care, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 17 May 2018, Ho Chi Minh City, Vietnam
16. Ways of looking at evidence-based practice, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 17 May 2018, Ho Chi Minh City, Vietnam
17. Contingency Management, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 18 May 2018, Ho Chi Minh City, Vietnam
18. Co-occurring disorder, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 18 May 2018, Ho Chi Minh City, Vietnam
19. Common co-occurring medical disorders, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 19 May 2018, Ho Chi Minh City, Vietnam
20. Core counseling skills, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 19 May 2018, Ho Chi Minh City, Vietnam
21. Essential forms for documentation in SUD treatment, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 20 May 2018, Ho Chi Minh City, Vietnam
22. Rationale for screening and brief intervention, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 20 May 2018, Ho Chi Minh City, Vietnam
23. Administering the ASI, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 21 May 2018, Ho Chi Minh City, Vietnam
24. Case management, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 21 May 2018, Ho Chi Minh City, Vietnam
25. Crisis intervention, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 23 May 2018, Ho Chi Minh City, Vietnam
26. Counselor safety, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 23 May 2018, Ho Chi Minh City, Vietnam
27. NAADAC ethical principles, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 24 May 2018, Ho Chi Minh City, Vietnam
31. Case conceptualization, 10th Recovery Symposium of the Drug Advisory Programme (DAP) of the Colombo Plan, 10 October 2018, Hanoi, Vietnam
32. Evidence for all Clinical Application of CBT for SUDs, 10th Recovery Symposium of the Drug Advisory Programme (DAP) of the Colombo Plan, 11 October 2018, Hanoi, Vietnam
33. The relationship between Substance Use Disorders (SUD) and Mental Health Disorders, 10th Recovery Symposium of the Drug Advisory Programme (DAP) of the Colombo Plan, 12 October 2018, Hanoi, Vietnam
34. Understanding the co-occurring disorders, 10th Recovery Symposium of the Drug Advisory Programme (DAP) of the Colombo Plan, 12 October 2018, Hanoi, Vietnam


37. Panel discussion, The Dainik Jagran Forum, 7 December 2018, New Delhi

38. Use of TeleMedicine facility for provision of services for treatment of addictive disorders, Training workshop on the use of TeleMedicine facility for provision of services for treatment of addictive disorders, 13 January 2019, Bhubaneswar, Odisha

39. Indian perspective on services from management of HIV/ AIDS among person with SUD, 2nd Advisory Board meeting of the Southeast Asia—HIV Addiction Technology Transfer Center (SEA-HATTC), 15 May 2018, Chiang Mai, Thailand

40. Strengthening services for SUD for persons living with HIV/ AIDS, 4th Advisory Board meeting of the Southeast Asia—HIV Addiction Technology Transfer Center (SEA-HATTC), 19 December 2018, Chiang Mai, Thailand

41. Behavioral addictions: Caught in the web, Wellness Program for Post-Graduate Trainees at AIIMS, 4 May 2018, New Delhi

42. WHO SEA regional collaborative framework for a coordinated response to MHPSS in emergencies, The Regional Capacity Building Workshop on Mental Health in Emergencies organized by WHO, 28 August 2018, Kathmandu, Nepal

Gauri Shanker Kaloyia

1. Cognitive behavior therapy and management of substance addiction, Three days Continuing Rehabilitation Education (CRE) Program, 6-8 February 2019, Chandigarh

2. Co-morbidity of personality disorders in patients with substance use disorder, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 31 January-3 February 2019, Lucknow


5. Management of substance use among youth, 81st Orientation Course (17 November-14 December) UGC-HRDC, BHU, Varanasi, 30 November 2018, Varanasi

6. Paying attention to family members of patients with SUD, 25th National Conference of Indian Association for Social Psychiatry, 16-18 November 2018, Rohtak


Ravindra V Rao

1. Scientific basis of addiction, Lecture delivered at LNJN National Institute of Criminology and Forensic Sciences, 14 May 2018, New Delhi

2. Scientific basis of addiction, Lecture delivered at LNJN National Institute of Criminology and Forensic Sciences, 29 October 2018, New Delhi

3. Drug use, health and human rights: Regional overview, problems and challenges, Advancing Health and Rights based approaches and Harm reduction services amongst people who use drugs organized by SAARC Secretariat, Government of Nepal, 10 December 2019, Kathmandu


Ashwani Kumar Mishra

1. Practical applications of the parametric and non-parametric test, on 9 May 2018, Postgraduate Class for MSc Biotech and Nursing, 9 May 2018, Delhi
2. Elements of descriptive statistics, VIII Refresher Course in Medical Sciences, University Grant Commission (UGC), Human Resource Development Centre, 2 June 2018, Varanasi
3. Elements of inferential statistics, VIII Refresher Course in Medical Sciences, University Grant Commission (UGC), Human Resource Development Centre, 2 June 2018, Varanasi
4. Presented scientific talk on Concepts of Drug Abuse Survey-Household Survey, Training programme on planning and designing of large-scale sample surveys for officers of States/UTs, at the National Statistical Systems Training Academy (NSSTA), 25 September 2018, Noida
5. Concepts of Drug Abuse Survey-Respondent Driven Sampling, Training programme on planning and designing of large-scale sample surveys for officers of States/UTs, at the National Statistical Systems Training Academy (NSSTA), 25 September 2018, Noida
6. Findings for National Survey on Extent and Pattern of Substance use in India-2019, Dissemination meeting for results on National Survey on Extent and Pattern of Substance Use in India, 4 February 2019, New Delhi

Rachna Bhargava

1. Substance abuse in children: Current scenario, State level meeting for children, 20 April 2018, Manipur
2. Mental health issues, Professional Development Program for Teachers of Amity Schools, 27 June 2018, Noida
3. Mental health issues, Professional Development Program for Teachers of Amity Schools, 29 June 2018, AIS Mayur Vihar, Delhi
4. Identification and management of substance use among school children, Capacity building program for schoolteachers by Delhi Government and SCERT, 8 August 2018, New Delhi
6. Understanding human psychology in dispute resolution, Training of judicial and advocate mediators from different states in India, Delhi Judicial Academy, 30 August 2018, Dwarka, Delhi
7. Factors contributing to violence and impact of violence against children, National Consultation on Creating Awareness on Violence against Children through Curriculum, 7 September 2018, Thane
8. Sexual violence and sexual abuse, Panel Discussion in 43rd Annual Conference of North Zone Indian Psychiatric Society, 6 October 2018, Chandigarh
10. Psychology of children with substance use, 3-month training program for counsellors, NISD, 9 November 2018, New Delhi
11. Counselling in substance use, 3-month training program for counsellors, NISD, 14 November 2018, New Delhi
12. Internet use: Emerging issues and implications, National Conference of IASP, 17 November 2018, Rohtak
13. Conflict resolution, Workshop on working towards excellence for nurses, AIIMS, 15 February 2019, New Delhi

Biswaadip Chatterjee

1. Screening and assessment of person with addiction, Six Days Training on “Treatment and Rehabilitation on Drug Abuse Prevention” for Cambodian participants, 6 February 2019, New Delhi

Alok Agrawal

1. Drug demand reduction, Specialized Workshop on “Precursor and Chemical Control” and “Licit Opium Plantation and Control” for Officials from Thailand, 17-20 April 2018 organized by National Academy of Customs and Indirect Taxes, (NACIN), 20 April 2018, Faridabad, Haryana
3. Treatment and rehabilitation of drug abuse, Training on Drug Abuse Prevention, Treatment and Rehabilitation for Cambodian Officers, 3-9 February 2019, organized by National Institute of Social Defense, 5 February 2019, New Delhi
4. Overview of drugs and drug-use disorders, 3rd National Youth Forum on Drug Abuse Prevention organized by SPYM and Vishwa Yuwak Kendra, 23 May 2019, New Delhi

Rizwana Quraishi
1. Genetics of alcohol and opioid dependence: Prevalence, association and implications in treatment outcome, 3rd Global Conference of Biological Psychiatry, 26 August 2018, Mumbai

Siddharth Sarkar
1. Emerging issues in substance use in India: Club drugs—under the carpet, peeping out sporadically, 20th International Society of Addiction Medicine Annual Meeting, 4 November 2018, Busan, South Korea
2. Prescription drug abuse in the elderly, IPS Geriatric Psychiatry Specialty Section CME, 17 December 2018, Bengaluru
3. rTMS perspective in addiction medicine, Workshop and Certificate Course on repetitive Transcranial Magnetic Stimulation, 15December 2108, Delhi
4. Urbanisation and family with focus on mental health care, National Mid-Term CME 2018 of the Indian Psychiatric Society, 12 August 2018, Orchha
5. Optimizing outpatient case discussion for clinical training of psychiatry residents, First National Conference on Mental Health Education, 6 April 2018, Bengaluru

Piyali Mandal
2. Substance use disorders in women: Assessment and management issues, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 2 February 2019, Lucknow
3. Women in addiction; issues, concerns and service gaps, 7th National FINGODAP conference organized by SPYM and National Institute of Social Defense, 30 March 2019, New Delhi

Roshan Bhad
1. Psycho active substances—characters and consequences, Invited lecture by NISD, 29 May 2018, New Delhi
2. Psychosocial management of substance use disorders, Invited lecture by NISD, 31 May 2018, New Delhi
3. Assessment of perceived barriers affecting adherence to Methadone Maintenance Treatment (MMT) in India: A retrospective cohort study, 20th Annual Conference of International Society of Addiction Medicine (ISAM), 6 November 2018, Busan, South Korea
6. OST training programme for programme managers of TI, Invited lecture by India-HIV Alliance & DSACS, Greater Kailash, 28 December 2018, New Delhi
7. Symposium: Harm reduction in substance use disorders, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 2 February 2019, Lucknow
8. Workshop: Nuts and bolts of peer review, 70th Annual National Conference of Indian Psychiatric Society (ANCIPS), 9 February 2019, Lucknow
Oral Papers/Posters Presented

1. Ambekar A, Mishra AK, Rao R, Agrawal A, Dhawan A, Chadda R, Epidemiology of Substance Use in India-A Compilation from Multiple Sources, XX Annual Conference of International Society for Addiction Medicine, 3 November 2018, Busan, South Korea


8. Dhawan A, Sarkar S, Singh V, Kaloiya GS, Paying attention to the family members of individuals with Substance Use Disorders, 25th National Conference of Indian Association for Social Psychiatry, 18 November 2018, Rohtak

9. Dhawan A, Inhalant abuse—Is it a problem of the underprivileged only in the Symposium on Emerging Issues in Substance Use in India, Annual Conference of the International Society of Addiction Medicine, 3-6 November 2018, Busan, South Korea

10. Dhawan A, Therapeutic approaches for drug addiction in the Symposium on Drug addiction and Indian culture, Annual Conference of the International Society of Addiction Medicine, 3-6 November 2018, Busan, South Korea


12. Kumar V, Sood M, Sarkar S, The linkages between creativity and mental illness, 43rd Annual Conference of the Indian Psychiatric Society—North Zone, 6 October 2018, Chandigarh


15. Mishra AK, Sampling designs and statistical analysis for data on National Survey on Extent and Pattern of Substance Use in India 2019, VII National Federation of Indian NGOs for Drug Abuse Prevention FINGODAP Conference, 29 March 2019, Delhi


17. Quraishi R, Singh D, Ambekar A, Jain R, Rao R, Gamma gutamyl transferase measurement in dried serum spots, 19th congress of international society for biomedical research on alcoholism (ISBRA2018), 9-13 September, Kyoto, Japan

18. Raghav R, Jain R, Roy TS, Dhawan A, Kumar P, Co-administration of mixed μ/Ƙ-agonist attenuate the opioid dependence, Society for Neuroscience, 3-6 November 2018, San Diego, USA


20. Singh S, Balhara YPS, The extent and pattern of internet gaming disorder among medical college students: An exploratory study from India, 71st Annual Conference of Indian Psychiatric Society (ANCIPS), 1 February 2019, Lucknow

RESEARCH

Funded projects

Ongoing

1. NIHR Global Health Research Group on Psychosis Outcomes: The Warwick-India-Canada (WIC) Network, RK Chadda, National Institute of Health Research, UK, 3 years, 2017-2020, Rs 2.44 crores

2. Detection of new psychoactive substances among substance abuse treatment seekers in India—Multi centric study, RK Chadda, Department of Revenue, Government of India, 3 years, 2017-20120, Rs 6.51 crores

3. Role of Delphinium denudatum (Jadwar) in a Rat Model of Nicotine Dependence, Raka Jain, AYUSH, 3 years, 2017-2019, Rs 29.16 lakhs

4. Extent of mental health issues and addictive behavior among adolescents seeking help in Adolescent Friendly Health Clinics in Delhi, Anju Dhawan, Adolescent Health Division, Directorate of Family Welfare, Government of NCT of Delhi, 1 year, 2019-2020, Rs 18.85 lakhs

5. Survey on substance use among School and College Students, Anju Dhawan, Ministry of Social Justice and Empowerment, Government of India, 6 months, 2019, Rs 14.85 lakhs


7. Field testing of ICD-11 classification for disorders related to substance use and addictive behaviours, Atul Ambekar, WHO, 2 years, 2017-2019, Rs 3.25 lakhs

8. Developing training mechanisms for use of Essential Narcotic Drugs (Methadone) for the treatment of opioid dependence, Atul Ambekar, Department of Revenue, Ministry of Finance, Government of India, 2 years, 2017-2019, Rs 76.21 lakhs

9. Bone mineral density and chronic alcoholism and changes following disulfiram deaddiction therapy, Yatan Pal Singh Balhara, DBT, 3 years, 2017-2019, Rs 8.3 lakhs

10. Strengthening cross-border and community responses to illicit drugs in South Asia, Yatan Pal Singh Balhara, UNODC, 2 years, 2017-2019, Rs 5.94 lakhs


12. Assessment of HIV, other Blood-borne Viruses, TB and risk behaviours among prison inmates in Gujarat, Ravindra Rao, UNODC, Regional Office for South Asia, 7 months, August 2018-March 2019, Rs 21 lakhs


15. Brain Stimulation as a Novel Technique for Cognitive Dysfunction and Craving Management to Enhance Treatment Outcome in Patients with Alcohol Dependence: A Prospective, Randomized Controlled Trial, Prabhoo Dayal, DST, 3 years, 2018-2021, Rs 25.80 lakhs

16. Comparison of serum Corticotrophin Releasing Factor (CRF) level in detoxified Opioid-dependent subjects with healthy controls, Biswadip Chatterjee, AIIMS, 2 years, 2017-2020, Rs 2 lakhs

17. Study on substance use among homeless population in India, Alok Agrawal, Ministry of Social Justice and Empowerment, Government of India, 1 year, 2018-2019, Rs 5.2 lakhs

18. A study among emerging opioid using populations in India, Alok Agrawal, The Colombo Plan, 5 years, 2018-2023, Rs 3.5 crores,


20. Relationship of serotonin pathway polymorphisms with self-harm behaviour among patients with opioid dependence, Siddharth Sarkar, DST, 2 years, 2017-2019, Rs 20.68 lakhs

21. Psycho-social correlates of drug use among attendees of Women’s Clinic of National Drug Dependence Treatment Centre, Piyali Mandal, AIIMS, 3 years, 2017-2020, Rs 0.5 lakhs
Completed

1. Establishment of regional resource hub for South-East Asia on behavioral addictions, Yatan Pal Singh Balhara, WHO, 1 year, 2018-2019, Rs 3.51 lakhs
2. To develop WHO South-East Asia Regional collaborative framework for a coordinated response to MHPSS in Emergencies, Yatan Pal Singh Balhara, WHO, 1 year, 2018, Rs 1.44 lakhs
3. Comparative assessment of stress and coping among adolescent with recent inhalant abuse: A case control study, Roshan Bhad, AIIMS, 2 years, 2017-2019, Rs 3.5 lakhs
4. Feasibility of transporting blood/serum samples onto filter paper to screen for biomarkers of harmful alcohol use among opioid dependent patients on agonist maintenance treatment: A pilot study in community setting, Rizwana Quraishi, AIIMS, 1 year, 2016-2017, Rs 2.8 lakhs

Departmental projects

Ongoing

1. A clinical trial to find the effect of transcranial Direct Current Stimulation (tDCS) on craving to smoke tobacco among opioid dependent smokers maintained on Buprenorphine
2. A comparative study of alcohol biomarkers and their clinical applicability in alcohol dependence
3. A comparative study of Ethyl Glucuronide (EtG) and Fatty Acid Ethyl Ester (FAEE) with other conventional biomarkers in alcohol dependent subjects
4. A comparative study of serum brain-derived neurotrophic factors levels in-patients with alcohol dependence, depression and co-morbid alcohol dependence and depression
5. A comparative study to assess the psycho-social correlates of gaming disorder among college students
6. A cross-sectional survey of medical personnel in India to assess their knowledge, attitude and barriers towards opioid analgesic preparations
7. A pilot follow-up study on retention and outcome of patients with opioid dependence
8. A prospective study to assess the factors associated with short term retention of opioid dependent syndrome on oral Naltrexone
9. A study of internalized stigma and pathways of care among primary cannabis use disorders patients seeking treatment at tertiary care drug treatment centre of India
10. Adult ADHD in patients with opioid dependence: An exploratory study
11. An exploratory study to assess the association between Nicotine Metabolite Ratio (NMR) and smokeless tobacco use parameters
12. Assessing client perceived barriers to initiate opioid substitution therapy among injecting drug users a cross-sectional, comparative, community-based study
13. Assessment of biochemical measures in adolescent inhalant users
14. Assessment of sexual behavior among patients seeking treatment for opioid dependence at NDDTC
16. Association between serum C-reactive protein level and alcohol consumption among patients of alcohol use disorders: A cross-sectional, exploratory study
17. Behavioral and biological assessment of vulnerabilities to acquisition of HIV, blood borne viruses and Tuberculosis among prison inmates of Gujarat
18. Cognitive functioning in buprenorphine maintained opioid dependent patients at peak and trough buprenorphine levels: An experimental study
19. Cognitive representation and efficacy of cognitive therapy in individuals with alcohol dependence syndrome
20. Comparison of different anti-platelets drug regimes on platelet aggregation and urinary 11-Dehydrothromboxane B2 levels in stable ischemic heart disease patients
21. Correlates of family functioning in adolescent substance users
22. Depression, anxiety, quality of sleep and mental adjustment style among adult myeloma patients in active treatment and maintenance phase
23. Development of cognitive behavioral based intervention module for adolescents in conflict with law
24. Development of Indian anxiety and mania questionnaire
25. Development of psychological intervention module among adolescents with dissociative disorder
26. Effect of cannabis on serum brain derived neurotrophic factor level and its relation with psychosis, A cross-sectional exploratory study
27. Effectiveness of reminders using Phone call versus Short Message Service on treatment retention in patients with Substance Use Disorders: An open label randomised trial
28. Experience with treatment among patients with substance use disorders
29. Factors associated with treatment retention amongst alcohol dependent patients
30. Family functioning and parental styles in adolescent substance use: Case control study
31. Family interventions addressing expressed emotions in treatment seeking men with opioid dependence
32. Gambling disorder and its socio-demographic correlates among treatment seeking patients with alcohol use disorders
33. Indigenously produced psychoactive substances in India, Patterns of use and profile of users
34. Knowledge, risk factors and experience of non-fatal overdose among Injecting Drug users, A community-based, cross-sectional study
35. Neurological soft signs and their correlates among patients with cannabis use disorder with and without psychosis, A cross-sectional study
36. Prevalence and characteristics of self-harm and suicidal attempts among patients with substance use disorder at a tertiary care hospital
37. Psychosocial correlates of caregiving experience among caregivers of patients with Schizophrenia
38. Psychosocial factors associated with internet use behaviour among Medical and Engineering undergraduate students, A comparative study
39. Rates and pattern of psychoactive substance use among prison inmates in India
40. Stigma among men and women seeking treatment for substance use disorder and their family members, A cross-sectional comparative study
41. Substance use among homeless men receiving services from shelter homes in Delhi
42. Substance use among school and college students
43. Substance use among transport workers
44. Substance use in children and adolescents with Attention Deficit Hyperactive Disorder, An exploratory study
45. The clinical and laboratory predictors of alcohol withdrawal syndrome
46. To explore and compare the association of various demographic, clinical and laboratory factors with Delirium Tremens (DT) among patients with Alcohol Dependence (AD), admitted with and without a diagnosis of DT, based upon review of clinical records
47. Tobacco use in alcohol dependent patients
48. Trazodone for sleep disturbance in opioid dependent patients maintained on buprenorphine, A double-blind placebo control trial

*Completed*

1. A comparative study of pattern and severity of substance use and co-morbidity among out-patient youth and older adult opioid users
2. A cross-sectional observational study to assess help seeking behavior for alcohol use disorders among patients with alcoholic liver disease
3. A retrospective study of concurrent non-prescribed medicinal and illicit drug use by opioid dependent patients prescribed with buprenorphine
4. A study of internalized stigma and pathways of care among primary cannabis use disorder patients seeking treatment at tertiary care drug use treatment centre in North India
5. A study of Serum BDNF levels in patients with alcohol dependence during withdrawal
6. An exploratory study of cannabis use pattern and treatment seeking in patients attending a tertiary care centre
7. An exploratory study of stigma and pathways of care among natural opiate users seeking treatment at tertiary de-addiction centre of India
8. Cross-sectional comparative study of clinical profile, severity of dependence and quality of life in treatment-seeking opioid users
9. Development of cognitive retraining module for improving cognitive deficits of abstinent patients with alcohol, cannabis and opioid dependence syndrome in a tertiary care De-addiction Centre of Northern India
10. Effectiveness of intravenous Naloxone in attenuating agonist effects of intravenous buprenorphine: A double blind, within-subject, randomized, cross-over study in opioid dependent subjects
11. Knowledge, risk factors and experience of non-fatal overdose among Injecting Drug Users: A community-based, cross-sectional study
12. Laboratory profile of women substance users seeking treatment at Tertiary Care Center in North India, A retrospective study
14. Oral methadone versus sublingual buprenorphine for treatment of acute opioid withdrawal, A randomized, double-blind, double-dummy, controlled study
15. Out-patient management of acute opioid withdrawal with buprenorphine in community-based setting, A retrospective chart review
16. Serum BDNF levels in patients of First Episode Schizophrenia, A pilot study
17. Serum brain derived neurotrophic factor levels in alcohol dependent patients during withdrawal
18. Study of sleep parameters in opioid dependent patients maintained on buprenorphine

Collaborative projects

Ongoing
1. A vignette based cross-sectional study to assess health care professional’s perspective on various ethical dilemma clinical situation, Medical Oncology
2. Default Mode Network of addictive disorders, A Quantitative EEG study, Physiology
3. Comparison of Double “J” and infant feeding tubes as stents in open Cohen’s ureteric reimplantation in terms of hospital stay, A randomized study, Paediatric Surgery
4. Comparison of Different Anti-platelet Drug Regimes on Platelet Aggregation and Urinary 11-Dehydrothromboxane B2 levels in Stable Ischemic Heart Disease Patients, Cardiology
5. Genetic polymorphisms of serotonergic pathways genes and their association studies with disease severity and response to escitalopram treatment in patients with major depressive disorder, Institute of Genomics and Integrative Biology (IGIB), funded by ICMR
6. Extent of problematic internet use in Nursing students at AIIMS, College of Nursing

Completed
1. Comparative appraisal of data collection methods and related epidemiological models for smoking, drinking and tobacco chewing among adolescent children in India, Biostatistics
2. Study of aspirin and clopidogrel resistance by Platelet Aggregation and its Association with Adverse Outcomes in Indian Stable Coronary Artery Disease Patients, Cardiology
3. Proteomics of CSF for the identification of protein signatures in the dopamine dictated states of schizophrenia and Parkinson’s Disease, funded by DST, Biophysics
4. A study to assess personality, psychological distress, and adjustment difficulties among nursing students at AIIMS, College of Nursing
5. The effect of prosthodontic rehabilitation of completely edentulous geriatric patients on Their Working Memory Process, A functional MRI based pilot study, CDER

PUBLICATIONS
Journals: 50    Abstracts: 12    Chapters in books: 8    Books: 3

PATIENT CARE
OUTPATIENT SERVICES

<table>
<thead>
<tr>
<th>OPD</th>
<th>New cases</th>
<th>Follow-up visits</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. General OPD, NDDTC</td>
<td>9,543</td>
<td>66,948</td>
<td>76,401</td>
</tr>
</tbody>
</table>

AIIMS 2018-19 / 723
2. Specialty clinics

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Patients</th>
<th>Revenues</th>
<th>Profits</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) Children and Adolescents</td>
<td>96</td>
<td>549</td>
<td>645</td>
</tr>
<tr>
<td>ii) Dual Diagnosis</td>
<td>135</td>
<td>605</td>
<td>740</td>
</tr>
<tr>
<td>iii) Tobacco Cessation</td>
<td>45</td>
<td>547</td>
<td>592</td>
</tr>
<tr>
<td>iv) Women</td>
<td>40</td>
<td>230</td>
<td>270</td>
</tr>
<tr>
<td>v) Family Empowerment</td>
<td>42</td>
<td>45</td>
<td>87</td>
</tr>
<tr>
<td>Total for Specialty clinics</td>
<td>358</td>
<td>1976</td>
<td>2334</td>
</tr>
</tbody>
</table>

3. Community clinics in New Delhi

<table>
<thead>
<tr>
<th>Community Clinic</th>
<th>Patients</th>
<th>Revenues</th>
<th>Profits</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) Trilok Puri</td>
<td>295</td>
<td>26,339</td>
<td>26,634</td>
</tr>
<tr>
<td>ii) Sunder Nagri</td>
<td>302</td>
<td>81,081</td>
<td>81,383</td>
</tr>
<tr>
<td>iii) Kotla Mubarakpur</td>
<td>273</td>
<td>34,922</td>
<td>35,195</td>
</tr>
<tr>
<td>Total for Community clinics</td>
<td>870</td>
<td>1,42,412</td>
<td>1,42,912</td>
</tr>
</tbody>
</table>

4. Grand Total (1+2+3) | 10,681 | 2,11,266 | 2,21,947 |

WARD SERVICES

<table>
<thead>
<tr>
<th>Service</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total number of admissions</td>
<td>1,341</td>
</tr>
<tr>
<td>2. Bed occupancy</td>
<td>99%</td>
</tr>
<tr>
<td>3. Average length of stay</td>
<td>13 days</td>
</tr>
<tr>
<td>4. Total patients visiting day-care ward</td>
<td>3,104</td>
</tr>
</tbody>
</table>

OTHER PATIENT CARE STATISTICS

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total deaths</td>
<td>0</td>
</tr>
<tr>
<td>2. Average admissions per working day</td>
<td>5</td>
</tr>
<tr>
<td>3. Average OPD attendance per working day</td>
<td></td>
</tr>
<tr>
<td>a. NDDTC (new patients)</td>
<td>32</td>
</tr>
<tr>
<td>b. NDDTC (old patients)</td>
<td>227</td>
</tr>
<tr>
<td>c. Trilok Puri community clinic (new patients)</td>
<td>1</td>
</tr>
<tr>
<td>d. Trilok Puri community clinic (old patients)</td>
<td>89</td>
</tr>
<tr>
<td>e. Sunder Nagri community clinic (new patients)</td>
<td>1</td>
</tr>
<tr>
<td>f. Sunder Nagri community clinic (old patients)</td>
<td>275</td>
</tr>
<tr>
<td>g. Kotla Mubarakpur community clinic (new patients)</td>
<td>92</td>
</tr>
<tr>
<td>h. Kotla Mubarakpur community clinic (old patients)</td>
<td>118</td>
</tr>
</tbody>
</table>

BIOCHEMISTRY LABORATORY

<table>
<thead>
<tr>
<th>Test</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Biochemistry tests</td>
<td>43,128</td>
</tr>
<tr>
<td>2. Haematological tests</td>
<td>17,758</td>
</tr>
<tr>
<td>3. HIV screening</td>
<td>313</td>
</tr>
</tbody>
</table>

DRUG SCREEN LABORATORY

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Drug</th>
<th>No</th>
<th>S. No.</th>
<th>Drug</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Morphine Test</td>
<td>3,175</td>
<td>8.</td>
<td>Benzodiazepines Test</td>
<td>5,630</td>
</tr>
<tr>
<td>2.</td>
<td>Codeine Test</td>
<td>2,515</td>
<td>9.</td>
<td>Cotinine Test</td>
<td>80</td>
</tr>
<tr>
<td>5.</td>
<td>Avil Test</td>
<td>2,515</td>
<td>12.</td>
<td>Cocaine Test</td>
<td>80</td>
</tr>
</tbody>
</table>
6. Naltrexone Test 2,515
7. Pentazocine Test 2,515
13. Inhalant Test
14. Tramadol 288

Total number of drugs tested in urine 29,285

AWARDS, HONOURS AND SIGNIFICANT EVENTS

- Swachhata award 2018 at AIIMS—Best stall award for the daycare stall, NDDTC
- Received second prize in the Senior Resident category on the occasion of 1st AIIMS Research Day celebrations on 26 March 2019

Professor Rakesh Chadda was expert member, Government of India Team to design mental hospital in South Sudan; Visited South Sudan on 2-5 January 2019 for site inspection as a member of team; Venkoba Rao Oration delivered at the 25th National Conference of the Indian Association for Social Psychiatry, Rohtak, 16-18 November 2018; Member, Editorial Board, BJP International; Chair, Awards Committee, Indian Association for Social Psychiatry, 2018-2021; Chair, Technical Resource Group on Injection Drug Users; Member, Nasha Mukti Abhiyan Task Force under National Health Policy (Ministry of Health and Family Welfare); Member, Selection Committee for National Awards for Outstanding Services in the field of Prevention of Alcoholism and Drug Abuse (Ministry of Social Justice and Empowerment); Was member selection committee for AIIMS, Jodhpur, Bhubaneshwar, Gorakhpur; University of Health Sciences, Rohtak; KGMU, Lucknow; Has been advisor to UPSC in selection committee; Assisted NBE in different roles; Member, Dean (Research) Committee.

Professor Raka Jain worked as an Expert Committee member of the WHO Expert Advisory Panel on Drug Dependence (Dependence Liability Evaluation), attended and participated in the World Health Organization (WHO) “40th Expert Committee Meeting on Drug Dependence (40th ECDD), 4-8 June 2018, WHO Headquarters, Geneva, Switzerland; As an Expert Committee Member of the WHO Expert Advisory Panel on Drug Dependence (Dependence Liability Evaluation), attended and participated in the 5th WHO/UNODC Expert Consultation on New Psychoactive Substances on 24-25 September 2018 followed on 26 and 27 September by a Working Group to prepare the forthcoming 41st ECDD, WHO Headquarters, Geneva, Switzerland; As an Expert Committee Member of the WHO Expert Advisory Panel on Drug Dependence (Dependence Liability Evaluation), attended and participated in the World Health Organization (WHO) “41st Expert Committee Meeting on Drug Dependence (41st ECDD, 12-16 November 2018, WHO Headquarters, Geneva, Switzerland; Appointed as Examiner for evaluation of MD thesis Dissertation in Psychiatry, National Institute of Mental Health and Neurosciences (NIMHANS), MOH&FW, Government of India in the year 2018; Appointed as External Expert for the selection of faculty position at National Institute of Mental Health and Neurosciences (NIMHANS), MOH&FW, Government of India (February 2019); Life Member of Society for Promotion of Research and Education in Mental Health and Substance Use.

Professor Rakesh Lal was advisor to Ministry of Railways to set up a Drug Dependence Management Centre with training to one of their doctors; Colombo plan: Member of Treatment Expert Advisory Group.

Professor Anju Dhawan received membership of International Society of Addiction Medicine (ISAM) Training and Education Committee; Developed Standard Treatment Workflow on Alcohol Use Disorders for Indian Council of Medical Research and Department of Health Research, Ministry of Health and Family Welfare, Government of India; Developed draft Action Plan document and brochure for Substance Use Prevention and Treatment in Children in various settings; Review of research proposal for Medical Research Council, UK; Lecture on Drug Abuse among Children in the Public Lecture on Young People and Mental Health in a Changing World, 9 October 2018, AIIMS, New Delhi; Sensitization about Substance Use in the Student Wellness Programme on 27 September 2018 and 9 March 2019 at AIIMS, New Delhi; Development of a Brochure about NDDTC and its activities; Conducted DM Addiction Psychiatry examination in NIMHANS on 22 November 2018.

Professor Sonali Jhanjee was invited as an expert in WHO FCTC Secretariat /WHO Addictiveness Reduction Meeting 15-16 May 2018, Berlin; Part of an Advisory Committee convened by MOH and FW to finalize “Guidelines for setting up Tobacco Cessation Centers at Dental Colleges and the technical specifications of the Breath Carbon Monoxide Monitor” and contributed to the following report: “Establishment of Tobacco cessation centres in Dental Institutes: An integrated approach in India, MOH&FW, 2018”; Part of an Advisory Committee convened by MOH&FW to develop guidelines for establishment of Tobacco Cessation Centres in Medical Colleges.

Professor Atul Ambekar provided expert advice to World Health Organization (Geneva) on Public Health Issues related to Addictive Behaviours and attended the Expert Group Meeting at Changsha, China (November 2018); Nominated as...

Dr YPS Balhara was awarded OSF Asian Scholarship by International Society for the Study of Drug Policy (ISSDP) to attend the 2018 ISSDP Conference held in Vancouver, Canada from the 16-18 May 2018; Member, Expert Working Group for finalising the Advanced Level Universal Treatment Curriculum (UTC) for Substance Use Disorders of the Colombo Plan Drug Advisory Programme (CPDAP); Member, Advisory Panel on Cyber Awareness Ambassador Program, South-East District, Delhi Police, India; Member, WPA Committee on Psychiatric Education for Medical Students; Nominated as Zonal Representative of World Association of Dual Disorders (WADD); Elected Member, Advisory Committee of World Association of Dual Disorders (WADD), 2018-2021.

Dr GS Kaloyia was Hon. General Secretary of Indian Association of Clinical Psychologists (IACP): 2018-2020; Participated in Regional Workshop on TOT on Family Interventions for youths dependent on substances for South Asia organized by UNODC Regional Office for South Asia (UNODC ROSA) from 10 to 14 December 2018, Colombo, Sri Lanka; Member of NOC Expert Group of Central Adoption Resource Authority (CARA), Ministry of Women and Child Development, GOI.

Dr Ravindra Rao was expert for building capacity of service providers of Opioid Substitution Therapy for Gujarat State AIDS Control Society; Training of service providers of Opioid Substitution Therapy for Punjab State AIDS Control Society; Assessment of Outpatient Opioid Agonist Treatment clinics supported by the Department of Health, Government of Punjab; Technical expert in review-cum-orientation meeting of service providers of Opioid Substitution Therapy organized by Punjab State AIDS Control Society; Expert, Accreditation Committee, NABH Accreditation Programme for ‘Integrated Rehabilitation Centre for Addicts’ by National Accreditation Board of Hospitals and Health Care Providers.

Dr Ashwani Kumar Mishra was associate Editor for the journal Tobacco Regulatory Science; External examiner for: Institute of Liver and Biliary Sciences (ILBS) for Nursing examination on paper on Research Methodology and Biostatistics, Paper of Research Methodology for examination of MPhil course in Clinical Psychology, at the Institute of Human Behavior and Allied Sciences (IHBA); Member of: International Society for Clinical Biostatistics, International Statistical Institute, International Association for study of Statistical Education, Indian Society for Medical Statistics, Indian Association for Study on Population.

Dr Biswadip Chatterjee was reviewer of: Journal of Psychosocial Rehabilitation and Mental Health, Indian Journal of Psychological Medicine; Received Swacchata Award 2018 at AIIMS—Best Stall Award for the Daycare Stall, NDDTC, as the faculty-in-charge of rehabilitation facilities, NDDTC.


Dr Piyali Mandal was selected for participation in Regional Workshop on piloting “United Nations Family Treatment Package for Youth with drug use disorder” in Colombo, Sri Lanka (10-14 December 2018); Peer reviewer for: Journal of Substance Use, International Journal of Psychiatry in Medicine.

Dr Roshan Bhad was recipient of International Travel Grant Award for Non-ICMR Scientist by ICMR for attending 20th ISAM, 2018, Busan, South Korea; Instrumental in operationalizing South Asia’s First Mobile Methadone Dispensing Unit at Seemapuri, East Delhi, inaugurated on 22 March 2019 by Director, AIIMS.
10.7. Neurosciences Centre

Chief
Kameshwar Prasad (up to 31 January 2019) MV Padma Srivastava (from 1 February 2019)

Neurology
Professor and Head
Kameshwar Prasad (up to 31 January 2019) MV Padma Srivastava (from 1 February 2019)

Professors
Manjari Tripathi
Vinay Goyal
Achal Srivastava
Garima Shukla (on leave)
Rohit Bhatia
Mamta Bhushan Singh

Associate Professor
Deepi Vibha

Assistant Professors
Vishnu VY
Roopa Rajan
Deepa Dash
Awadh Kishor Pandit
Rajesh Kumar Singh

Neurosurgery
Professor and Head
Shashank Sharad Kale

Emeritus Professors
Ajit K Banerji

Professors
P Sarat Chandra
Ashish Suri
Rajinder Kumar
Manmohan Singh
Deepak Agrawal (JPNATC)
Deepak Gupta (JPNATC)

Associate Professors
Gurudutt Satyarthee (JPNATC)
Pankaj Kumar Singh (JPNATC)
Vivek Tandon
Sachin Borkar

Assistant Professors
Hitesh Gurjar
Aman Jagdewan
Shashwat Mishra
Rajeev Sharma
Shweta Kedia
Ramesh Doddamani
Dattaraj Sawarkar
Kanwaljeet Garg
Manoj Phalak
Amol Raheja
Satish Verma
Rajesh Meena
Santanu Bora

Neuroimaging and Interventional Neuroradiology
Professor and Head
SB Gaikwad

Professor
Ajay Garg
HIGHLIGHTS

In this academic year, the Department of Neurology participated in the second AIIMS-PGI Update in Neurology: A continuing medical education programme intended at imparting recent advances on a variety of neurological conditions to residents in training. Professor Kameshwar Prasad retired as chief of center and head of Neurology in January 2019. Professor MV Padma Srivastava took over the reigns as the Chief of Neurosciences Center and Head, Department of Neurology from February 2019. Many CMEs, workshops and conferences were organized by the department.

Department of Neurosurgery organized many workshops, CMEs and conferences. Three international conferences were organized. Very eminent neurosurgeons like Professor Richard Wohns and Dachling Pang from USA participated in these
workshops to teach advanced neurosurgical procedures. Professor Deepak Agarwal has been instrumental in developing an indigenous ventilator which is very economical and is a boon for developing nation like ours.

In the Department of Neuroimaging and Interventional Neuroradiology, state-of-art 128 slice dual energy CT scanner was installed replacing the 10-year-old 6-slice CT scanner which has low-dose CT protocols and faster acquisition in clinical routine are now possible with the best image quality ensured. The existing 1.5T MR was upgraded to ‘silent MR’ system with reduced claustrophobia in patients significantly.

Neuroanaesthesia department organized many workshops, conferences. Some talks were organized as a part of Lecture series on Psychological Sciences by eminent international and national speakers by the Department of Clinical Neuropsychology.

Neurobiochemistry introduced new diagnostic test TPMT screening and other tests. Corpus fund was allocated for the care of poor patients of the neurological emergency.

Neurology

HIGHLIGHTS
The Department of Neurology continued to scale new heights in patient care, research and training. Professor MV Padma Srivastava took over as the Head, Department of Neurology. This year was notable for the initiation of a poor patient’s fund for provision of emergency services to neurological patients. It enables the department to provide all acute care within 24 hours of emergency admission free of cost to the patients. This includes expensive treatments such as mechanical thrombectomy for acute stroke and therapeutic plasma exchange. In the research arena, the department continued to excel with publications in high impact journals. As part of ongoing efforts to provide comprehensive training to Neurology residents, novel initiatives including a student-led teaching programme were spearheaded.

EDUCATION
The teaching and training capacities were upgraded with the induction of six new Senior Residents, which is designed to raise the number of qualified neurologists graduating to twelve per year. In addition to the routine teaching responsibilities, faculty from the Department of Neurology were involved in conduct of several interdisciplinary workshops and training sessions within AIIMS.

CMEs/Workshops/Symposia/National and International Conferences organized by department

1. World Parkinson’s Disease Day Programme, 1 April 2018, New Delhi
2. 4th Rural Epilepsy Workshop for the Nepal Epilepsy Society, 4-8 April 2018, Dadeldhura, Nepal
3. World Multiple Sclerosis Day Programme, 30 May 2018, New Delhi
4. Workshop ‘Diagnosis and treatment of Epilepsy’, 9 August 2018, New Delhi
5. Epilepsy diagnosis and treatment workshop, 15-16 October 2018, Lucknow
6. World Stroke Day Programme, 29 October 2018, New Delhi
7. Workshop on Management of Common Neurological Problems in Low-resource Settings, 12-16 November 2018, Ganiyari, Chattisgarh
8. 15th National EEG workshop and Masterclass for Epilepsy Surgery and Epilepsy Neurobiology, 21-23 November 2018, Varanasi
9. 4th Movement Disorder Society of India Annual Conference (MDSICON 2019), 22-24 February 2019, New Delhi
10. 5th Rural Epilepsy Workshop for the Nepal Epilepsy Society, 16-18 March 2019, Gorkha, Nepal

Lectures delivered

MV Padma Srivastava

1. Stroke care and delivery systems for developing countries, Stroke Perceptorship Programme, 8-9 April 2018, Dhaka, Bangladesh
2. Stroke management, Global NCD Summit, 20 April 2018, Rishikesh
3. Approach to stroke, IAN Summer School, 12 May 2018, Bengaluru
4. Case studies and lectures, Visiting Professor at AIIMS Rishikesh, 25-28 May 2018, Rishikesh
5. Pregnancy and Multiple Sclerosis, ICTRIMS, 15 July 2018, Kochi
7. Early Intensive Therapy versus escalation for Multiple Sclerosis, East MS Summit, 28-29 July 2018, Kolkata
8. Frontiers of stroke recovery, 3rd Annual Cell Gene Therapy Symposium, 6-7 September 2018, Vellore
11. Improving stroke care in India, 4th Annual Health Care Summit, 28 September 2018, Jaipur
12. Update on management of Acute Ischemic Stroke, India International Science Festival, 7 October 2018, Lucknow
13. Acute Ischemic Stroke care in resource poor countries panelist: Global stroke care in developing countries, Global Summit on NCDs by WHO, World Stroke Congress, 17-20 October 2018, Montreal, Canada
15. Management of PFO, Stroke Update Meeting, 3 November 2018, New Delhi
16. Stem cell therapy in stroke, Annual Army Neurosciences Update, 3 November 2018, New Delhi
17. Medical management of Acute Ischemic Stroke, Neurovision 2018, 11 November 2018, Odisha
18. Stroke in Young, International Conference on Essentials of Stroke Care, 7-18 November 2018, Thrivihanathapuram
19. Intravenous therapy vs Mechanical thrombectomy in Acute Ischemic Stroke, European Academy of Neurology Meeting, 8-9 December 2018, Mumbai
20. Optimising DMT in RRMS, CME on Multiple Sclerosis Summit, 23 December 2018, Vishakhapatnam

Manjari Tripathi

1. Refractory Epilepsy, Brain and Mind, 14 June 2018, Nepal
2. Presurgical evaluation in resource limited countries, 16th Asian Oceanian Congress of Neurology, 8 November 2018, Seoul, South Korea
3. MEG and Hid EEG In Epilepsy, ECON-2019, 8 February 2019, New Delhi
5. MEG in Epilepsy, 16th Annual World Congress Society for Brain Mapping and Therapeutics, 16-17 March 2019, Los Angeles, California

Vinay Goyal

1. EBM: PD and drug induced MD, 7th Neuro Vision, 11 November 2018, Bhubaneswar
2. Management of Parkinson’s Disease, CME: Movement disorders, 23 and 24 June 2018, Surat
3. Parkinson’s Disease, Public Health Awareness of Parkinson, 12 April 2018, Rishikesh

Achal K Srivastava

1. Spinocerebellar Degeneration in Tropics, Annual Conference of Tropical Neurology, 1 April 2018, Lucknow
2. Transcranial magnetic stimulation: A Neurologist’s perspective, Neuromodulation Society of India Meeting, 13 May 2018, Delhi
4. Gait assessment in ataxia and NPH1, 67th Annual Conference of Neurological Society of India (NSICON 2018), 13 December 2018, Jaipur
5. Treatable Dementias, 21st Annual Conference of Delhi Neurological Association (DNACON 2019), 3 February 2019, Delhi
8. Workup of a patient with ataxia—Where should we stop? 4th I-NK Movement Disorder Update and Botulinum Toxin Workshop, 8 April 2018, Kolkata
10. What is new in Spinocerebellar Ataxias, 4th Annual Conference of Movement Disorder Society of India MDSICON-2019, 23 February 2019, New Delhi
11. Management of Parkinson’s Disease, 4th RIMACON, 2 March 2019, Rae Bareilly, UP

Rohit Bhatia

2. Current management of acute ischemic stroke, 16th International Conference on Cardiology, Diabetology, Electrocardiology, Echocardiography and Critical Care, 13-14 October 2018, Bhopal
3. Management of acute migraine, Delhi Headache Symposium, 19 August 2018, Delhi
4. MS what is new, UPUK CON 2018, 13-15 April 2018, Uttarakhand
5. NMOSD and MOG pathophysiological and treatment updates, MS Summit Gujarat, 7-8 July 2018, Gujarat
6. Acute and long-term treatment of CNS demyelinating disorders, Neurology Update Ahmedabad, 1-2 December 2018, Ahmedabad
7. Cardioembolic stroke, Neurology Update Ahmedabad, 1-2 December 2018, Ahmedabad
8. IV thrombolysis: Indications and difficult situations, Neurology update, 14 October 2018, Delhi
10. Therapeutics—Goals, Current and Emerging Therapy in Multiple Sclerosis, IANCON 2018, September 2018, Ahmedabad

Mamta Bhushan Singh
1. Rural Epilepsy Workshop, Nepal Epilepsy Society Meeting, 4-8 April 2018, Dadeldhura, Nepal
2. Epilepsy diagnosis and treatment, Epilepsy Diagnosis and Treatment Workshop, 15-16 October 2018, Lucknow
3. Management of Common Neurological Problems in Low-resource Settings, Jan Swasthya Sansthan Workshop, 12-16 November 2018, Chattisgarh
4. 5th Rural Epilepsy Workshop, Nepal Epilepsy Society, 16-18 March 2019, Gorkha, Nepal
5. Diagnosis and treatment of Epilepsy, CMET Workshop, 9 August 2018, New Delhi

Deepti Vibha
1. Diagnosis and Certification of Brain Stem Death Criteria, In Service Training Programme on Deceased Organ and Tissue Donation, ORBO, 17 April 2018, New Delhi
2. Systematic Review/Meta-Analysis, Research Methodology, Writing and Communication, 2 May 2018, New Delhi
3. Design, conduct and analysis of diagnostic test studies, Research Methodology, Writing and Communication, 3 May 2018, New Delhi
4. Formulation of a research question, Objectives and hypothesis Group Task, 2nd PG Course on Research Methodology, Writing and Communication, 24 September 2018, New Delhi
5. An overview of study designs; Group task, 2nd PG Course on Research Methodology, Writing and Communication, 25 September 2018, New Delhi
6. Design, conduct and analysis of diagnostic test studies, 2nd PG Course on Research Methodology, Writing and Communication, 26 September 2018, New Delhi
7. Migraine, Workshop for Neuronurses in Neurocritical Care Conference, 23 October 2018, New Delhi
8. Study designs, National research conference cum workshop by Physician Research Foundation, 12 January 2019, New Delhi
10. Diagnosis and Certification of Brain Stem Death Criteria, In Service Training Programme on Deceased Organ and Tissue Donation by ORBO, 18 February 2019, New Delhi
11. Diagnosis and Certification of Brain Stem Death Criteria, In Service Training Programme on Deceased Organ and Tissue Donation by ORBO, 18 March 2019, New Delhi

Vishnu VY
2. Association or Causation, CME on Neuroimmunology, PGI Chandigarh, 28 July 2018, Chandigarh

Roopa Rajan
1. Principles of handling psychiatric comorbidities in non-communicable diseases, National CME on Consultation-Liaison Psychiatry, 9 April 2018, New Delhi
2. Recent updates in the management of Parkinson’s Disease, CME, IMA Thrissur, 26 May 2018, Thrissur
3. Immune-mediated movement disorders, CME on Neuroimmunology, 28 July 2018, Chandigarh
4. Dystonia clinical registry and biobank: Indian scenario, Luxembourg-German Indian Alliance for Neurodegenerative Diseases and Therapeutics (Lux-GIANT) Symposium, 14 September 2018, Tübingen, Germany
5. rTMS- place in movement disorders, Workshop on Repetitive Transcranial Magnetic Stimulation, 14 December 2018, New Delhi
6. A cryptic cause of chorea, MDSICON 2019, Video Akhada, 23 February 2019, New Delhi
7. Device assisted therapies in PD, MDSICON 2019, 24 February 2019, New Delhi

**Deepa Dash**

1. Interesting video case, 4th Movement Disorders Update of Institute of Neurosciences Kolkata, April 2018, Kolkata
2. Movement disorders: The way forward, APICON Delhi Chapter, December 2018, New Delhi
3. Panelist on role of cannabis in neurological disorders, Annual Conference on Cannabis R&D in India (CSIR), December 2018, New Delhi
4. Challenges in Medical management of Parkinson Disease, Annual Conference of Neurological Society of India, December 2018, Jaipur
5. Parkinson Disease: Management, Armed Forces Neurology and Neurosurgery Update, November 2018, New Delhi
6. Anti-biogram and its applications, Hospital Infection Control Committee Workshop AIIMS, November 2018, New Delhi
7. Immune Mediated Movement Disorders, Annual Conference of Movement Disorder Society of India, February 2019, New Delhi
8. Grand round case, Annual Conference of Movement Disorder Society of India, February 2019, New Delhi
9. Autoimmune Epilepsy: Annual Conference of Epilepsy Society of India, March 2019, New Delhi
10. Advanced Parkinson’s Disease: Challenges and solutions, Annual Conference of Delhi Neurology Association, January 2019, New Delhi
11. Current approaches to medical treatment of Parkinson’s Disease, Recent advances in Parkinson Disease, Maulana Azad Medical College, February 2019, New Delhi

**Awadh Kishor Pandit**

1. An interesting case—The Mystery of Brainstem, Annual Conference of Delhi Neurological Association, 2-3 February 2019, Dr Ambedkar International Centre, Janpath, New Delhi

**Rajesh Kumar Singh**

1. Nursing responsibility in acute stroke management, Nursing and Healthcare Innovations: Sharing the Learning, 15 March 2019, New Delhi
2. Epilepsy, AIIMS Neuroanaesthesia Workshop, 2 November 2018, New Delhi

**Oral papers/posters presented**

1. Pandit AK, Prasad K, Talwar P, Kumar A, Pathak M, Gupta P, An exploratory study to investigate the association between short-term exposure to air-pollution on the occurrence of ischemic or hemorrhagic stroke in a case crossover design, 11th World Stroke Congress, Montreal, 17-20 October 2018, Canada
5. Bhat P, Goyal V, Kumaran A, Goyal C, Srivastava AK, Behari M, Dwivedi S, Neuromodulation by rTMS in Parkinsons Disease: A fMRI Study, 22nd International Congress of Parkinson’s Disease and Movement Disorders, 5-8 October 2018, Hong Kong
7. Dash D, Rare case of immune mediated movement disorder, 4th Movement Disorders Update of Institute of Neurosciences Kolkata, April 2018, Kolkata
9. Dash D, Tripathi M, Thtisham K, Spectrum of movement disorders in patients of autoimmune encephalitis of non-neoplastic aetiology, International Congress of Parkinson’s Disease and Movement Disorders, 2018, 7 October 2018, Hong Kong
11. Goyal V, Bhat P, Goyal C, Srivastava AK, Kumaran S, Behari M, Dwivedi S, Effects of rTMS on three cortical areas in Parkinson’s Disease, 22nd International Congress of Parkinson’s Disease and Movement Disorders, 5-8 October 2018, Hong Kong
19. Misra S, Kumar A, Talwar P, Sagar R, Kumar P, ... Vibha D, et al., Diagnostic Accuracy of Total Leucocyte Count and C-Reactive Protein as Blood Based Protein Biomarkers in Differentiating Hemorrhagic Stroke from Ischemic Stroke, 11th World Stroke Congress, 17-20 October 2018, Montreal, Canada


32. Singh I, Verma A, Suroliya V, Hooda U, Faruq M, Ahuja V, Makharia G, Srivastava AK, Gluten sensitivity in progressive cerebellar ataxia patients from India, 22nd International Congress of Parkinson’s Disease and Movement Disorders, 5-8 October 2018, Hong Kong


35. Singh H, Shukla G, Singh I, Faruq M, Vivekanandhan S, Srivastava AK, Transcriptional profiling of peripheral blood monocytes from child Friedreich’s ataxia patient: New molecules and patterns of gene expression, 22nd International Congress of Parkinson’s Disease and Movement Disorders, 5-8 October 2018, Hong Kong


37. Srivastava AK, Narang M, Rajan R, Shukla G, Mohammad M, Pandit A, Vibha D, Singh MB, Prasad K, Electrophysiological characteristics of tremor in spinocerebellar ataxia type 12 (SCA-12) and essential tremor, 22nd International Congress of Parkinson’s Disease and Movement Disorders, 5-8 October 2018, Hong Kong


39. Surolia V, Faruq M, Srivastava AK, A strategic approach to understand microsatellite repeat loci among Indian Spinocerebellar Ataxia patient, 22nd International Congress of Parkinson’s Disease and Movement Disorders, 5-8 October 2018, Hong Kong


41. Swarup V, Singh I, Garg A, Rajan R, Goyal V, Clinical and mutation spectrum of Ataxia with oculomotor apraxia-2: An Indian perspective, 22nd International Congress of Parkinson’s Disease and Movement Disorders, 5-8 October 2018, Hong Kong

42. Pattnaik SS, Sarangi SC, Tripathi M, Mahey R, Association of antiepileptic drugs with abnormalities in physical fitness, reproductive status and quality of life in women with epilepsy, ECON-2019, 9 March 2019, New Delhi

43. Sonakar AK, Srivastava AK, Faruq M, Clinico-genetic profiling of a case of adult onset Cerebellar ataxia: Tracing the origin of mutation to an ancestral founder population of Saharanpur district of Uttar Pradesh India, 4th Movement Disorder Society of India Conference, 22-24 February 2019, Delhi

44. Singh N, Srivastava AK, Pandit AK, Vibha D, Shukla G, Prasad K, To study clinical, histological and radiological features in neurological mitochondrial disorders, 70th Annual Congress of the American Academy of Neurology, 21-28 April 2018, Los Angeles, USA


47. Sarangi SC, Tripathi M, Tapering pattern and risk of seizure recurrence in persons will epilepsy undergoing AED tapering, ECON-2019, 8 March 2019, New Delhi Star paper Award 2nd Prize

48. Takkar A, Ahmed I, Shaxa S, Srivastava AK, Clinico-genetic correlation in Indian Spinocerebellar ataxia Type 1 (SCA1) patients’, 22nd International Congress of Parkinson’s Disease and Movement Disorders, 5-8 October 2018, Hong Kong

49. Tomuli D, Kaur M, Kumar S, Jaryal A, Srivastava AK, Deepak KK, Cortical and brainstem neurodegeneration associate with the clinical severity in spinocerebellar ataxia patients’, 22nd International Congress of Parkinson’s Disease and Movement Disorders, 5-8 October 2018, Hong Kong


53. Vibha D, Prasad K, Ikram MA, et al., Brain volumes and longitudinal cognitive change: A population-based study, 70th Annual Congress of the American Academy of Neurology, 21-28 April 2018, Los Angeles, USA


55. Vinny PW, Padma MV, Lail V, Sylaja PN, Narasimhan L, Nair PP, Iype T, Gupta A, Patil A, Comparison of diagnostic accuracy between neurology residents and a novel neurology app in vascular neurology on an iOS platform, Indian National Stroke Conference, 15-17 March 2019, Ahmedabad, India


RESEARCH

Funded projects

Ongoing

1. Development of diagnostic grid for prediction of infarction in patients with tuberculous meningitis, MV Padma Srivastava, DST, 4 years, 2015-2019, Rs 59.99 lakhs

2. Randomized, double-blind evaluation in secondary stroke prevention comparing the efficacy and safety of the thrombin inhibitor dabigatanate texilate 110 or 150 Mg (Twice 3 daily) versus acetylsalicylic acid (100 Mg once daily) in patients with embolic stroke of undetermined source, MV Padma Srivastava, BI, 3 years, 2016-2019, Rs 51 lakhs

3. Mapping, researching and addressing the gaps in scientific awareness and health practices regarding stroke in Hp: Applying novel, interactive/demonstrative science communication, MV Padma Srivastava, DST, 3 years, 2016-2019, Rs 40.45 lakhs

4. Effect of dual-task exercise in conjunction with fluoxetine and Transcranial Direct Current Stimulation (tDCS) on postural stability and gait in stroke patients, MV Padma Srivastava, ICMR, 3 years, 2017-2020, Rs 50.60 lakhs

5. Effect of Yoga on physical, physiological and functional health in post stroke recovery: A RCT, MV Padma Srivastava, DST, 2 years, 2017-2019, Rs 43.23 lakhs

6. Elucidating the pathobiology of classical ayurvedic interventions in post stroke recovery using magnetic resonance and other techniques based structural, functional and chemical biomarkers, MV Padma Srivastava, DST, 3 years, 2018-2021, Rs 31.33 lakhs

7. Secondary prevention by structured semi-interactive stroke prevention package in INDIA (SPRINT INDIA) study and establishment of the Indian Stroke Clinical Trial Network (INSTRuCT), MV Padma Srivastava, ICMR, 3 years, 2017-2020, Rs 3.29 lakhs and Rs 12.11 lakhs
8. Role of normobaric oxygen therapy, Fluoxetine and Transcranial Direct Current Stimulation (rTCDS) in Hypoxic Ischemic Brain Injury—HIBI initiative, MV Padma Srivastava, DBT, 5 years, 2018-2023, Rs 106.03 lakhs

9. Randomised, double-blind, placebo-controlled, international, multicenter, phase III study to investigate the efficacy and safety of ticagrelor and ASA in the prevention of stroke and death in patients with acute ischemic stroke or transient ischemic attack (THALES-Acute stroke or transient ischemic attack treated with Ticagrelor or and ASA for prevention of stroke and death), MV Padma Srivastava, ASTRA-ZENA, 1 year, 2018-2019, Rs 3.92 lakhs

10. Is air pollution and climate change a stroke risk factor? With special reference to Stroke in Young Indians and ischemic stroke subtypes: A multi-center study, MV Padma Srivastava, DST, 3 years, 2018-2021, Rs 59.11 lakhs

11. A 12-week double blind, randomized multi-centric study comparing the efficacy and safety of once monthly subcutaneous AMG 334 against placebo in adult episodic migraine patients (EMPOWER), MV Padma Srivastava, NOVARTIS, 1 year, 2018-2019, Rs 0.9 lakhs

12. The National Institute for Health Research Global Health Research Group on improving stroke care in India at The University of Central Lancashire, IMPROVing Stroke CarE in India (IMPROVISE), MV Padma Srivastava, NIHR-UCLAN-UK, 2 years, 2018-2020, Rs 42 lakhs

13. Center of Excellence—EPILEPSY—Magnetoencephalography (MEG) Programme, Manjari Tripathi, DBT, 3 years, 2018-2021, Rs 3,00 lakhs

14. CRISPR-based Editing of Regulatory Region and Expanded Triplet repeats as Therapeutic Approach in India’s Most Common Hereditary Ataxias, Achal K Srivastava, DBT, 3 years, 2018-2021, Rs 125.35 lakhs

15. Targeting Repressor Sites in fxn Gene and Associated Transcription Factors as Potential Therapeutic Approach in Friedreich’s Ataxia, Achal K Srivastava, ICMR, 3 years, 2019-2022, Rs 62.27 lakhs

16. Targeting specific sleep abnormalities in patients with temporal lobe epilepsy, to improve their cognitive performance—a randomized controlled study, Achal K Srivastava, DHR, 3 years, 2017-2020, Rs 45.60 lakhs

17. Understanding pathobiology of multiple sclerosis; biomarker, phenotypic and genotypic signatures, Rohit Bhatia, ICMR, 5 years, 2018-2023, Rs 1.2 crores

18. Genetic and clinical factors associated with aspirin resistance in Indian population with Ischemic Stroke, Rohit Bhatia, DBT, 3 years, 2017-2020, Rs 58 lakhs

19. Genomic and Proteomic Characterization of Indian Patients with Amyotrophic Lateral Sclerosis, Rohit Bhatia, AIIMS, 2 years, 2019-2021, Rs 20 lakhs

20. Genetic and clinical factors associated with aspirin resistance in Indian population with Ischemic Stroke, Rohit Bhatia, DBT, 3 years, 2017-2020, Rs 58 lakhs

21. A Prospective, Multicentric, Randomized, Double Blind, Parallel, Saline Controlled Phase II Clinical Study to Compare the Safety and Efficacy of PMZ-1620 Therapy along with Standard Supportive Care in Subjects of Acute Ischemic Stroke, Deepi Vibha, Pharmazz India Pvt Ltd, 3 years, 2017-2019, Rs 4 lakhs

22. A randomized double blind study of prophylactic leviteracetam for the prevention of post stroke seizures (PROLEVIS), Vishnu VY, DST-SERB, 3 years, 2018-2021, Rs 29 lakhs

23. Citicoline in Acute Ischemic Stroke undergoing revascularization therapy, Vishnu VY, AIIMS, Intramural, 2 years, 2018-2019, Rs 5 lakhs

24. Automated hand-drawn spiral analysis platform as a tool to differentiate tremor syndromes, Roopa Rajan, DST-SERB, 3 years, 2017-2020, Rs 42 lakhs


26. The Indian Movement Disorder Registry and Biobank: Clinical and genetic evaluation in Indian patients with movement disorders, Roopa Rajan, DBT, 2 years, 2019-2021, Rs 73.37 lakhs

27. Association of host leukotriene A4 hydrolase gene polymorphism with the clinical outcome of patients with Tubercular meningitis, Deepa Dash, AIIMS, 1 year, 2018-2019, Rs 49 lakhs

28. An exploratory study to identify candidate CSF biomarkers in Idiopathic Intracranial hypertension with vision loss, Awadh Kishor Pandit, AIIMS, New Delhi, 2 years, 2017-2019, Rs 2.5 lakhs

29. Deciphering the role of ATF3 and TGF β signaling in Mesial Temporal Lobe Epilepsy (MTLE) patients, Rajesh K Singh, AIIMS, New Delhi, 2 years, 2018-2020, Rs 9.44 lakhs

Completed

1. An International multi-centre, open parallel group, prospective, randomized, controlled trial to determine the effectiveness of treatment with Continuous Positive Airways Pressure (CPAP) in addition to standard care in reducing Cardiovascular (CV) severe obstructive sleep apnea (OSA) Manjari Tripathi, University, Australia, 5 years, 2013-2108, Rs 60 lakhs
2. A multicenter, randomized, double-blind, parallel-group, placebo-controlled study to evaluate the efficacy and safety of PEGylated Interferon Beta-1a (BIIB017) in subjects with relapsing Multiple Sclerosis, Manjari Tripathi, Biogen Idec Ltd, 5 years, 2013-2018, Rs 5 lakhs

3. Identification of MicroRNAs Signatures and Their Target Genes Modulating Spinocerebellar Ataxia Type-2 (SCA-2) Pathogenesis, Achal K Srivastava, DBT, 2 years, 2015-2018, Rs 86.95 lakhs

4. Deep targeted clinical sequencing of mitochondrial genome and exomes to unravel the causal and modifier variations in patients with cerebellar ataxias, Achal K Srivastava, ICMR, 3 years, 2016-2019, Rs 82 lakhs

5. Identification of genetic causal and risk alleles in Amyotrophic lateral sclerosis and ALS-frontotemporal dementia, Deepti Vibha, AIIMS, 3 years, 2016-2018, Rs 4 lakhs

**Departmental projects**

**Ongoing**

1. A clinical trial to evaluate the role of education to care givers in reducing complications and improving outcomes of hospitalized stroke patients

2. A study of relationship between brain functioning and financial decision making

3. Assessment of impact of physical exercise as complementary management strategy in people with epilepsy

4. Assessment of sleep dysfunction and its correlation with autonomic function test and severity of disease in apparently idiopathic sporadic progressive cerebellar ataxia

5. Characterization of tremor and gait in spinocerebellar ataxia type 12

6. Clinical spectrum and natural course of hypokinetic and hyperkinetic movement disorders in a tertiary referral hospital

7. Comparison of CECT and NCCT in the investigation of focal epilepsy patients—A prospective observational study

8. Comparison of regimens of dexamethasone in tubercular meningitis—A randomized controlled trial

9. Customized vs regular testing battery during ictal phase in lateralizing and localizing seizures in Epilepsy Monitoring Unit (EMU)

10. ESCALATE: Linezolid as An Add on Treatment in the Intensive Phase of Tubercular Meningitis—A randomised controlled trial

11. Evaluating the role of structured education to care givers in reducing complications in hospitalized stroke patients and improving their outcomes—A cluster randomized trial

12. Identification of novel unstable tandem nucleotide repeat loci by genome wide screening and their implication in the pathogenesis of genetically uncharacterized progressive cerebellar ataxias

13. Interventions for stigma for persons in epilepsy in India

14. Ketogenic diet in patients with epilepsy

15. NAC as an add on therapy in acute ischemic stroke, Randomised trial

16. Non ataxic manifestations of spinocerebellar ataxia

17. Prophylactic antiepileptic in Intracranial Hemorrhage

18. Randomised controlled trial comparing efficacy of intranasal versus intramuscular midazolam in terminating seizures during pre surgical epilepsy—VEEG monitoring

19. Randomized investigation of the role of repetitive transcranial magnetic stimulation in Parkinson’s Disease

20. Role microRNAs in pathophysiology of neurodegenerative disorder: Spinocerebellar ataxia type 2 (SCA2)

21. Social cognition in drug refractory epilepsy and effect of epilepsy surgery

22. Study of efficacy of Fluoxetine in post-stroke anxiety—A randomized controlled trial

23. To determine the diagnostic performance characteristics of blood-based protein biomarkers for the differentiation of stroke using high—Throughput proteomics approach

24. To identify functional genetic elements in triplet repeats flanked haplotype region and mitochondrial genome in spinocerebellar ataxias

25. To study the molecular correlation of Friedreich’s ataxia (FRDA) phenotype through mitochondrial genome and transcriptome analysis

26. Utility of 8-channel EEG in detecting interictal generalised spike and wave discharges in epilepsy—A diagnostic study

27. Utilization of a seizure helpline via SMS text message in patients with epilepsy—A randomized controlled trial

28. Validation of FXTAS rating scale in SCA 12 patients
Completed

1. A Randomized Controlled Trial (RCT) of early verses late surgery in childhood intractable Epilepsy
2. Citiculline in patients with ischemic stroke undergoing interventions, Randomised trial
3. Deconvolution of autosomal recessive cerebellar ataxias: Clinicogenetic approach and phenotypic genotypic correlation
4. Effect of add on yoga in migraine, A randomized controlled trial (CONTAIN)
5. Effect of mobile and internet use on headache: A cross-sectional study
6. Efficacy of modified Atkins diet versus ketogenic diet in children with refractory epilepsy aged 1 year to 18 years
7. Elucidate the role of semaphoring in epileptogenesis and hyper-excitability associated with temporal lobe epilepsy
8. Evaluation of Autonomic Dysfunction in Patients with Multiple System Atrophy
9. Evaluation of Clinical profile and VEGF in relation to disease progression in ALS
10. Immunogenetic mechanisms in epilepsy patients taking anti-epileptic medications
11. Immunogenetic Mechanisms in Epilepsy Patients taking antiepileptic medications
12. Leukoaraiosis and microbleeds and relationship to hematoma expansion and outcome
13. Musk Myasthenia gravis
14. Role of mediodorsal thalamic nuclei in sleep
15. Role of sertin protein and its therapeutic implication in neurodegenerative disease
16. Study of Clinical, Histological and Radiological Features in Neurological Mitochondrial Disorders
17. Study of cognition and Quality of life in Chronic Intractable Epilepsy using Functional Magnetic Resonance Imaging (fMRI)
18. Triamcinolone in meralgia paresthetica
19. Validation of ICH and ICHGS scores in an Indian cohort with ICH

Collaborative projects

Ongoing

1. A randomised controlled trial to study the efficacy of exercises in early stage Parkinson’s Disease, PMR
2. A temporal evaluation of weight management in reduction of disc edema in cases of acute idiopathic intracranial hypertension, Department of Ophthalmology, AIIMS, New Delhi
3. An international pilot study of an internet-based platform to run epilepsy trials, (EPINET), University of Auckland
4. Cryptococcal antigenemia in people living with HIV and AIDS, Medicine
5. Dementia Science Programme: Prevalence / Risk / Intervention Analysis of Dementia and Basic Research thereof, NBRC, Manesar, Gurugram, HR
6. Depression in person with Epilepsy (PWE): Correlation with Serum biomarkers and CYP2C19 polymorphism, A pilot study, Intramural collaborative
8. Genomic and proteomic characterization of Indian patients with amyotrophic lateral sclerosis, IIT, Delhi
9. Identification of biomarker in PD using MRI techniques 2016, NMR
10. Mapping functional and biochemical correlates in brain of patients with Parkinson’s Disease with mild cognitive decline, 2016, NMR
12. Plasticity options for financial decision-making-theory and experimental evidence, Technische Universitat Dresden, Germany and Department of Economics, GGSIP University, Delhi
13. Proteomic study on Parkinson’s Disease and schizophrenia, Biophysics
14. Proteomics of CSF for the identification of Protein signatures in dopamine dictated states of Parkinson’s Disease and Schizophrenia 2014, Biophysics
15. To study the effect of platelet rich plasma in leprosy induced peripheral neuropathy, Dermatology and Venereology
16. Understanding pathobiology of multiple sclerosis: Biomarkers, genetic and phenotypic signatures, IGIB, Delhi

Completed

1. Comprehensive neuropsychological rehabilitation in post stroke aphasia, Neuropsychology
2. Effect of acute deep brain stimulation of subthalamic nucleus on selective attention in Parkinson’s Disease, Physiology
3. Efficiency of microbiological techniques in aiding clinical diagnosis of adult tuberculous meningitis and drug resistance, Microbiology
4. Global audit of treatment of refractory status epilepticus, UK-Italy
5. Role of pc-ASL with multiple post labelling delays in evaluation of resting state cerebral perfusion in patients with severe proximal cervical ICA stenosis, before and after CAS
6. The study of mitochondrial DNA mutation and reactive oxygen species in Parkinson’s Disease, Laboratory Medicine
7. Myasthenia Gravis, School of Nursing

PUBLICATIONS
Journals: 52 Abstracts: 40 Chapters in books: 6 Books: 1

PATIENT CARE
The Department of Neurology provides outpatient, inpatient and emergency care to patients suffering from neurological illnesses. In addition to general neurology care, subspecialty services are provided in the fields of Stroke, Epilepsy, Movement Disorders, Neuromuscular disorders. The department provides state of the art care in throughout the subspecialties of neurology and is one of the highest volume centers in the country for acute stroke care, epilepsy surgery and functional neurosurgery for movement disorders. All the acute care for stroke in the emergency setting including thrombolytic therapy is being provided free of cost to the patient. Neurology OPD saw 29,334 new registrations and 46,320 old registrations (total 75,654 patients) in the year 2018-2019.

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor MV Padma Srivastava was awarded the Fellowship to Royal College of Physicians (FRCP) in the year 2018; Awarded the “Baldev Singh Oration” by National Academy of Medical Sciences for the year 2018; Awarded the IUSSTF project on Virtual Networked Center on “Homocysteine Lowering Stroke Patients in India: Strategic Planning”, University of Iowa, USA.

Professor Manjari Tripathi received 1st Prize for AIIMS Excellence Research Award 2018 for the year 2017-2018, AIIMS, New Delhi; Extraordinary contribution to Epilepsy an outstanding Achievement Epilepsy Award in 11th Asian and Oceania Epilepsy Congress Hong Kong.

Professor Achal K Srivastava received Poster Award-Second Prize for research work entitled ‘Differentiation of autonomic dysfunction in multiple system atrophy subtypes and Parkinson’s Disease’ during 26th Annual Conference of Indian Academy of Neurology at Raipur in September 2018; Received Best Paper Award-Second Prize for ‘Need of next generation sequencing technology to de-convolute AR cerebellar Ataxias in India’ during 21st Annual Conference of Delhi Neurological Association (DNACON-2019) at New Delhi on 2-3 February 2019.

Professor Rohit Bhatia received Poster Prize for Oral Presentation INSC 2018; Member National Stroke Guidelines, Government of India; PhD student selected for young investigator award, World stroke congress 2018; Invited Reviewer, Abstract grading, International Stroke Conference, American Heart Association; Member Institute Ethics Committee for Postgraduate Research; Member, Centre for Integrative Medicine and Research (CIMR) AIIMS; Member Dean Research Committee, AIIMS.

Dr Deepti Vibha was selected for traineeship in Neurosonology at Yong Loo Lin School of Medicine, National University of Singapore; Selected for the Indian Academy of Neurology-Association of Indian Neurologists in America (IAN-AINA) observer fellowship for stroke at Stroke Services, University of Pittsburgh Medical Center (UPMC); Member of Technical Committee at Institute of Liver and Biliary Sciences, New Delhi; Member of expert panelist for public awareness programmes conducted by AIIMS on Stroke and Multiple Sclerosis; Invited as expert at Doordarshan and Aakashwani on topics related to neurological disorders.

Dr Vishnu VY received Young Investigator Award, World Stroke Congress, Montreal 2018.

Dr Roopa Rajan was selected for the International Parkinson and Movement Disorder Society—LEAP Programme 2019; Second Runner up in Video Akhada, MDSICON 2019.

Dr Deepa Dash received David Sackett Memorial Award for the outstanding performance in International course in Health Research Methodology and Evidence based Medicine 2018, Bengaluru; Second Best Poster Award in ICTRIMS 2018, Kochi, India.
Dr Awadh Kishor Pandit received International Travel Grant by Department of Biotechnology, Government of India to attend and present paper at 11th World Stroke Congress, Montreal, Canada.

Dr Rajesh Kumar Singh presented and moderated Clinical Combined Round (CCR) in AIIMS 14 August 2018 on the topic “The Curious case of errant hypothalamus”; Coordinated AIIMS German collaborative visit at AIIMS on 29 October 2018; Participated as faculty in charge for conducting AIIMS MBBS examination on 26 August 2018 at Patna and Nursing officers examination on 16 September 2018; Chaired session in MDSICON, 22-24 February 2019; Chaired session in 20th Joint Annual Conference of Indian Epilepsy Society 8-10 March 2019.

Neurosurgery

HIGHLIGHTS

The department organized many workshops, CMEs and conferences. These were focused on specialty branches of neurosurgery and stalwarts from various parts of the world came to AIIMS to perform surgeries with us and teach. Three international conferences were organized by our department focusing on different aspects of neurosurgery. Indian Society of Neuro-Oncology Conference was organized in April, followed by Asia Pacific Cervical Surgery Society meeting in November and Indian Society of Pediatric Neurosurgery Conference in February 2019. Annual spine and microneurosurgery workshops were held prior to the cervical surgery and pediatric neurosurgery conferences respectively. Eminent neurosurgeons like Professor Richard Wohns and Dachling Pang from USA participated in these workshops to teach advanced neurosurgical procedures. Professor Ashish Suri’s paper on “Simulation in skull-base neurosurgery” was judged as the Best paper in 29th Annual Conference of North American Skull Base Society at Orlando, Florida, USA. He was also made an executive member of the prestigious World Federation of Neurosurgical Societies Skull Base Committee.

Professor Deepak Agarwal has been instrumental in developing an indigenous ventilator which is very economical and is a boon for a developing nation like ours. He was also elected as Editor in Chief of Indian Journal of Nerve Surgery and Indian Journal of Neurotrauma. Professor Deepak Gupta edited and authored a book on Craniosynostosis. Dr Gurudutt Satyarthee received the prestigious faculty research award in Neurosciences conferred by Honourable HRD minister. Dr Sachin Borkar was nominated as AO spine delegate from Indian subcontinent.

CMEs/Workshops/Symposia/National and International Conferences

1. 3rd Japan-India Advanced Skull Base and Neurovascular Workshop, 17 October 2018, AIIMS, New Delhi
2. Neurosurgery Simulation-based Short Term Skills Training Programme: Neurosurgery Skills Training Facility (NSTF) and Neurosurgery Education and Training School (NETS)
3. Faculty for CME on annual neurotrauma, skull base workshop, neuro endoscopy course, minimally invasive neurosurgery workshops, spine workshop
4. 8th Live Operative Workshop and Symposium on Complex Spinal Trauma held, May 2018, JPNATC, AIIMS, New Delhi
5. 8th International CME and Workshop on Cost Effective Use of Technology in e-health care held at, October 2018, AIIMS, New Delhi
6. Cadaveric workshop on Endoscopic Skull Base, 8-9 December
8. AIIMS Annual Microneurosurgery Workshop 2019, 13-14 February 2019, New Delhi
9. INDSPNCON 2019 Annual Conference of Indian Society for Pediatric Neurosurgery, 15-17 February 2019, New Delhi
10. Joint organizing secretary for Indian Society for Neuro-Oncology Conference, AIIMS, 4-7 April 2018, New Delhi
11. Co-Chairman of Scientific Committee for Asia Pacific Cervical Spine Society Annual Meet, 14-17 November 2018, New Delhi
13. Co-organizing Secretary for Annual Conference of Indian Society for Pediatric Neurosurgery INDSPNCON 2019, 15-17 February, New Delhi

Lectures delivered

SS Kale

1. 360° fusion for syndromic cervical kyphosis, 33rd Annual Meeting of the Neurospinal Society of Japan, 14-15 June 2018, Japan
3. Complications in odontoid screw fixation, 27th Annual Conference of Neurotrauma Society of India, 17 August 2018, Lucknow
4. Faculty in workshop, Neurosurgery Skills Training Lab Workshop, 19 August 2018, Chandigarh
5. Syndromic cervical kyphosis, Neuro Spinal Surgeons Association (SPINE 2018), 28-30 September 2018, Maharashtra
7. Intra-operative video on laminoplasty and corpectomy, AO Spine Principles Seminar 2018, 5-7 October 2018, Bangladesh
10. Intercoating cases, Indo American Spine Summit, 11 December 2018, Uttar Pradesh
11. CVJ tuberculosis—A New treatment paradigm, 67th Annual Conference of the Neurological Society of India, 13-16 December 2018, Rajasthan
14. Tumor of CV Junction, 29th Annual North American Skull Base Society Meeting, 15-17 February 2019, USA
16. Tips to prevent post laminectomy kyphosis, 8th Annual Conference of Neurological Surgeon’s Society of India, NSSICON-2019, 28 February-1 March 2019, Assam
17. Correction of chin-on-chest deformity, Asian Australasian Society of Neurological Surgeon Education Course and Minimally Invasive Live Neurosurgery Workshop, 3 March 2019, Rajasthan

Ashish Suri

1. Special considerations in Giant Pituitary Adenomas, 20th Hands on Endoscopic Transnasal Approaches to the skull base, 11-13 April 2018, Trier, Germany
2. Surgical treatment of Cushing Disease: Series of 123 patients, Prague Neurosurgical Week-2018, 29 August-2 September 2018, Prague, Czech Republic
3. Endoscopic endonasal approach for giant pituitary adenoma: A single surgeon experience of 47 cases, Prague Neurosurgical Week-2018, 29 August-2 September 2018, Prague, Czech Republic
4. Moya Moya disease: Experience of 133 patients, Prague Neurosurgical Week-2018, 29 August-2 September 2018, Prague, Czech Republic
5. Simulation in neurosurgery: Proposal for skills training curriculum, Prague Neurosurgical Week-2018, 29 August-2 September 2018, Prague, Czech Republic
11. Giant pituitary adenomas: Extended endonasal endoscopic vs transcranial microscopic approaches, 12th International 3D Neuroanatomy and Neurosurgical Approaches WFNS Workshop, 28 February-2 March 2019, Alicante, Spain
12. Transcavernous anterior transpetrous rhomboid approach, 12th International 3D Neuroanatomy and Neurosurgical Approaches WFNS Workshop, 28 February-2 March 2019, Alicante, Spain
13. Giant pituitary adenomas, 20th Hands on Endoscopic Transnasal Approaches to the Skull Base, 27-29 March 2019, Trier, Germany
15. Cadaver demo-endoscopic endonasal skull base approach, CeMAST Neurosurgery Course, 20-21 April 2018, Mumbai
17. When to do clip reconstruction in Giant Aneurysms, 18th Annual Meeting of the Cerebrovascular Society of India (Neurovascon-2018), 7-9 September 2018, Chennai
18. When to do Bypass for Complex and Giant Aneurysms, 18th Annual Meeting of the Cerebrovascular Society of India, 7-9 September 2018, Chennai
19. Microvascular Anastomosis, 18th Annual Meeting of the Cerebrovascular Society of India, 7-9 September 2018, Chennai
21. 3D Video: Giant Aneurysms, PARAS NEUROCON-2018 1st Annual Masterclass in Neurosurgery, 15-16 September 2018, Paras Hospital, Gurgaon
22. Endoscopic Endonasal Extended Skull Base approach, 3rd Neurosurgery Workshop, 30 September 2018, Tirupati
27. Bypass in Giant Aneurysm, 67th Annual Conference of Neurological Society of India NSICON-2018, 13-16 December 2018, Jaipur
30. Extended endonasal endoscopic skull base approach, ACNS and WFNS Foundation Live Surgery, 16-17 March 2019, Hyderabad

Rajinder Kumar
1. Minimally invasive spinal procedures, Techniques, Spine Surgery workshop-AIIMS, 26-28 October 2018, Delhi
2. Approaches to 3rd ventricular tumours, Technical Nuances, Microneurosurgery Workshop-AIIMS, 13-14 February 2019, Delhi

Manmohan Singh
1. Gamma Knife radiosurgery for AVMs, 6th Nepalese Society of Neurosurgeons Meeting, 5-7 April 2018, Kathmandu, Nepal
2. Complications in suprasellar surgery, CME on Management of Suprasellar Surgery, 5 May 2018, Chennai, Tamil Nadu
3. Transbasal approach for anterior skull base tumors as a standalone procedure, Skull Basecon 2018, 1-3 November 2018, Ludhiana, Punjab
4. Large aggressive nasopharyngeal tumors with intracranial extension: Is transbasal approach is the ideal approach for complete tumor resection, NSICON 2018, 12-16 December 2018, Jaipur, Rajasthan
5. Management of complex intracranial aneurysms, NSSICON 2019, 28 February-1 March 2019, Guwahati, Assam
6. Role of clipping in the era of coiling, Asian Australasian Society of Neurological Surgeons Education Course, 2-3 March 2019, Jaipur, Rajasthan
Deepak Gupta
2. Is their a doctor in flight, ANTC 2018, October 2018, Delhi
3. Posterior fossa astrocytomas, INDSPNCON 2019, February 2019, Delhi
4. First successful craniopagus twin separation surgery of India, Annual Conference API Association, Kakinada, June 2018, Andhra Pradesh
5. First successful craniopagus twin separation surgery of India, Annual Conference of Plastic Surgeons of India (APSICON), September 2018, Lucknow
6. First successful craniopagus twin separation surgery of India, NSSICON 2019, 28 February 2019, Assam

Vivek Tandon
1. Odontoid fixation technique, Hands on cadaver course in Spine skills, 14-15 August 2018, New Delhi
2. Cervical OPLL diagnosis and management, Hands on cadaver course in Spine skills, 14-15 August 2018, New Delhi
3. MIS thoracic pedicle screws, Hands on cadaver course in Spine skills, 14-15 August 2018, New Delhi
4. Posterior foraminotomy and cervical laminoplasty, Hands on cadaver course in Spine skills, 14-15 August 2018, New Delhi
5. Moderated a debate on EDH—Minimally invasive vs craniotomy, Neurotrauma Conference, 28 October 2018, New Delhi
6. Cranioplasty in poor GCS patients, Neurotrauma Conference, 28 October 2018, New Delhi
7. Challenging cases in Neuro-Oncology—Moderated the Tumor Board Discussion, ISNOCON 2018, 6 April 2018, New Delhi
9. Role of intraoperative MRI in pituitary adenoma surgery, Brainspine 2018, 6-7 November 2018, Maldives National University, Male, Maldives
10. Optimizing the extent of resection in Glioma Surgery, NSICON 2018, 12 December 2018, Jaipur
11. How many adjuncts do we need for glioma for Glioma Surgery, NSICON 2018, 14 December 2018, Jaipur
13. Optimizing the extent of resection in Glioma Surgery, NSSICON, 28 February 2019, Guwahati
14. Intraoperative navigation, Glioma Masterclass at Tata Memorial Hospital, 7 March 2018, Mumbai

Pankaj Kumar Singh
2. Evolution in management of hangmans fracture, 8th AIIMS Complex Spine Live Operative Workshop, 5-6 May 2018, AIIMS
3. Long term outcome of pediatric vertebral hemangiomas treated surgically, Brainspine 2018, 6-7 November 2018, Maldives National University, Male
4. Evolution in management of hangmans fracture, APCSS 2018, 15-17 November 2018
5. Evolution in management of Paediatric hangmans fracture, INDSPNCON 2019, 15-17 February 2018, AIIMS

Sachin Borkar
1. O-arm navigation—Necessity or luxury? Annual meeting of Minimally Invasive Spine Surgeons’ Association of Bharat (MISSICON-2018), 26-28 September 2018, Hyderabad
2. Evidence based management of Recurrent Gliomas, Paras NEUROCON, 14-16 September 2018, Gurgaon
3. ACDF complication avoidance, Preconference Cadaveric Workshop DOACON 2018 (Delhi Orthopedic Association Annual Conference), 22 November 2018, Delhi
Hitesh Gurjar
1. Transcavernous pretemporal approach to giant suprasellar tumors, NSICON 2018, Jaipur, 15 December 2018

Shashwat Mishra
1. Clearing the cervical spine, Neurotrauma 2018, 18 August 2018, Lucknow
2. Learning Bypass surgery, Annual Conference of Neurological Society of India (NSICON 2018), 15 December 2018, Jaipur

Shweta Kedia
1. Amino acid PET as an imaging modality for gliomas complementary to MRI, Monthly Brain Tumor Meet, 17 May 2018, Cleveland, USA
2. Hydrocephalus and Neural tube defects, 4th Instructional course in Neurosurgery, 6 October 2018, Delhi
3. Percutaneous fixation in Dorso-Lumbar trauma, 5th ANTC, 26 October, Delhi
4. Spine Radiosurgery: All in a Day’ work, APCSS 2018, 17 November, Delhi
5. Career path of women in Neurosurgery, NSICON, 2018, 15 December, Jaipur
7. Role of Radiosurgery in Craniopharyngiomas, IndsPN 2019, 17 February, Delhi

Dattaraj Sawarkar
1. Diagnosis and certification of Brain stem death criteria, CME on Brain Stem Death, January 2019, Delhi

Manoj Phalak
1. Anterior vs posterior surgical approach in TB spine, Brain Spine 2018, 7 November 2018, Male, Maldives
2. Interesting case discussion, APCSS 2018, 15 November 2018, Delhi
3. Electrical injuries to the brachial plexus, ISPNS 2018, 10 February 2019, Chennai
4. Spine instrumentation—nursing care, Neurocritical Care Conference 2018, 26 October 2018, Delhi
5. Combined skull base approaches for malignancies of skull and brain, Post Graduate Teaching Programme—Surgical Oncology Seminar, 24 October 2018, Delhi

Ramesh Doddamani
2. Robotic guided radiofrequency ablation of Hypothalamic Hamartomas, INDSPNCON-2019, 15-17 February 2019, Delhi

Kanwaljeet Garg
1. Role of Gamma Knife in parasagittal meningiomas, ISNOCON, New Delhi, April 2018, Annual Conference of Indian Society of Neuro-Oncology, 5-8 April 2018, Jaipur
2. Introduction to Professor Graham Teasdale, ANTC, New Delhi, October 2018, Annual AIIMS Neurotrauma Conference, 26-28 October 2018, New Delhi

Amol Raheja
2. Insurance and Flow alteration STA-MCA bypass in the management of complex intracranial anterior circulation aneurysms in post-endovascular era, Maldives Brain and Spine Conference, 6 November 2018, ADK Hospital Male, Maldives

Rajesh Meena
1. Advances in MIS Instrumentation, First international Conference and Workshop on Cost-Effective Use of Technology in Health-Neurosciences, 28-31 March 2019, GOA
Oral papers/posters presented


5. Borkar SA, Kale SS, Paediatric CVJ and cervical spine anomalies: Complication avoidance and bailout, Annual Conference of Indian society of pediatric neurosurgery, 15-17 February 2019, Delhi


12. Garg K, Meet the masters (Interesting case discussions), Asia Pacific Cervical Spinal Society Meeting, 15 November 2018, New Delhi


25. Manoj P, Kale SS, Unusual case of PRES following surgery for cervicodorsal intramedullary cyst, ISPN 2018, 8 October 2018, Tel Aviv, Israel
30. Meena R, Interesting case discussion—Hirayama disease, APCSS 2018, 15-17 November 2018, New Delhi, India
34. Phalak M, Kale SS, Does choice of approach translate into surgical outcomes for Tb spine-a radiologic study, WFNS 2019, 23 March 2019, Belgrade, Serbia
42. Satyarthee GD, Intraspinal pressure monitoring, 12th Asia Pacific Cervical Spine Society Meeting, 11 November 2018, New Delhi
45. Sawarkar D, Singh P, Chandra PS, Kumar R, Kale SS, Long term follow up of Surgical management of symptomatic paediatric vertebral haemangiomas presenting with myelopathy ISPAN 2018, 7-11 October 2018, Tel Aviv, Israel
46. Sawarkar D, Singh P, Chandra PS, Kumar R, Kale SS, Surgical management of symptomatic paediatric vertebral haemangiomas presenting with myelopathy with long term follow up, ISPNO 2018, 30 June-3 July 2018, Denver, USA

50. Sawarkar D, Status of Brachial plexus surgery in Apex Tertiary Care Center, ISPNS 2019, 8-10 February 2019, Chennai

51. Sawarkar D, Tips and tricks in Neuroendoscopy, Neurocon 2018, 14-16 September 2018, Delhi


53. Sharma R, Case based discussion—children with raised ICP, 5th AIIMS Annual Neurotrauma Conference, 28 October 2018, New Delhi


Won Second Prize in Best Poster Award


59. Singh PK, Sawarkar DS, Chandra PS, Kale SS, Verma S, Kumar A, Surgical management of symptomatic paediatric vertebral haemangiomas presenting with myelopathy with long term follow up, ISPN 2018, 7-11 October 2018, Tel Aviv, Israel

60. Singh PK, Sawarkar DS, Kale SS, Kumar A, Management of Paediatric traumatic thoracolumbar spondyloptosis, ISPN 2018, 7-11 October 2018, Tel Aviv, Israel


62. Tandon V, Raheja A, Suri A, Chandra SP, Kale SS, Randomized trial to assess the utility of IOMRI in Pituitary Surgery, Brainspine 2018, 6 November 2018, Male, Maldives


**RESEARCH

**Funded projects

**Ongoing

1. Centre of Excellence for Epilepsy, Phase II, P Sarat Chandra, DBT, Ministry of Science and Technology, India, 3 years, 2018-2021, Rs 502 lakh

2. Advanced Epilepsy Research: A multidisciplinary approach, P Sarat Chandra, Principal Scientific Advisor (PSA), Government of India, 3 years, 2018-2021, Rs 377.47 lakhs

3. Collaborative Neuro-engineering platform for excellence in innovation and translational research, Ashish Suri, DBT, Ministry of Science and Technology, Government of India AIIMS+ CSE- IIT-D, 3 years, 2018-2021, Rs 657 lakhs


7. National Bioscience Award for Career Development 2015, Ashish Suri, DBT, Ministry of Science and Technology, Government of India, 2 years, 2016-2018, Rs 17 lakhs
8. TATA Innovation Fellowship Award 2015, Ashish Suri, DBT, Ministry of Science and Technology, Government of India, 4 years, 2016-2020, Rs 45 lakhs
9. Optic Nerve Ultrasound in Severe Traumatic Brain Injury, Deepak Agrawal, DBT, 2 years, 2015-2017, Rs 36.07 lakhs
10. Paroxysmal Sympathetic Activity and its role in severe TBI, Deepak Agrawal, AIIMS, 2 years, 2018-2019, Rs 10 lakhs
11. ADAPT, Deepak Gupta, National Institute of Health, 7 years, 2015-2022, Rs 105.49 lakhs
12. Center-TBI, Deepak Gupta, Universitair Ziekenhuis Antwerpen (UZA), Belgium, 4 years, 2016-2020, 5000 USD per year
13. Rescue ASDH, Deepak Gupta, Cambridge University, 3 years, 2017-2020, Consumables: 144 pounds per randomised patient CRF completion costs: 213 pounds per randomised patient
14. Role of diffusion tensor imaging in degenerative lumbar spine diseases, Vivek Tandon, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
15. Lateral approaches to Lumbar Spine: Cadaveric Feasibility study in Indian population, Sachin Borkar, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
16. Investigating the Role of GABA a Receptor Subunits Alteration in Focal Cortical Dysplasia, Hitesh Kumar, AIIMS, 2 years, 2018-2019, Rs 5 lakhs
17. The feasibility of endoscopic Anterior Odontoid screw fixation—A cadaveric pilot study, Shweta Kedia, Extramural Grant, 1 year, 2018, Rs 6 lakhs
18. Lateral approaches to lumbar spine—Cadaveric study, Sachin Borkar, AIIMS, 1 year, 2017, Rs 2 lakhs
19. Deciphering the role of Histone Deacetylases (HDACs) in mesial temporal lobe epilepsy, Ramesh S Doddamani, AIIMS, 2 years, 2016-2018, Rs 5 lakhs
20. Microsurgical comparison of operative exposure of internal acoustic canal through middle fossa and retrosigmoid hearing preservation skull base approaches—A laboratory investigation, Amol Raheja, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
21. Quantitative analysis of the variants of the Far Lateral Condylar approaches, Rajesh Kumar Meena, AIIMS, 2 years, 2017-till now, Rs 4.75 lakhs

**Completed**

1. Injury mechanisms in Blast and Blunt Traumatic Brain Injuries—A comparative study based on Clinical data and numerical analysis, SS Kale, Science and Technology Office of Naval Research Global, 3 years, 2015-2018, Rs 29.68 lakhs
2. Centre of Excellence for Epilepsy, P Sarat Chandra, DBT, Ministry of Science and Technology, India, 5 + 2 years extension, 2011-2018, Rs 40 crores
3. VEGF: As a potential systemic marker of local angiogenic activity and response to gamma knife surgery, Deepak Agrawal, AIIMS, 1 year, 2016-2017, Rs 5 lakhs
5. Determination of the reference range for the elevated PT/INR with normal coagulation factor level and its association with plasma transfusion therapy in head injury patients, Deepak Agrawal, ICMR, 2 years, 2015-2017, Rs 25 lakhs

**Departmental projects**

**Ongoing**

1. A study on the effect of GABA A receptor alterations in cortical dysplasias
2. Analysis of PDL1 expression and T-cell infiltration in different molecular subgroups of Midline Gliomas and the clinical outcome
3. Arnold chiari malformation in Craniovertebral Junction (CVJ) anomaly, clinical and prospective outcome
4. Assessment of secondary spinal curvatures in patients with cranio-vertebral junction anomaly and its improvement following DCER
5. Cervical alignment following cervical laminoplasty
6. Cervical alignment following laminoplasty for Cervical Spondylitic Myelopathy (CSM)
7. CVJ anomalies with Chiari malformation
8. Deciphering the role of Casein Kinase 2 in Mesial Temporal Lobe Epilepsy
9. Deciphering the role of Transforming Growth Factor β signalling and Matrix Metalloproteinase 9 in Epileptogenesis in Mesial Temporal Lobe Epilepsy
10. Outcome of craniopharyngioma patients following radiosurgery
11. Efficacy of comparative Magnetoencephalography Source Localisation and propagation of interictal epileptic discharges in patients with Drug Resistant Epilepsy
12. Gamma-Knife for giant intracranial (>20cc) lesions
13. Impact of cervical decompression typical and atypical symptoms of cervical spondylosis
14. Intraoperative MRIs role in improving extent of resection in Gliomas
15. Investigating the role of GABA A receptor alteration in Cortical Dysplasia
16. Long term follow up of gamma knife for Vestibular Schwannoma
17. Management of craniovertebral junction anomaly
18. Midline Gliomas: A study of clinical outcome and associated molecular alterations
19. Outcome following Gamma knife therapy for trigeminal neuralgia at AIIMS, Delhi
20. Outcome of surgically clipped anterior circulation aneurysms with good grade SAH
21. Paediatric intracranial neoplasm—Incidence, outcome and prognostic factors
22. Preoperative and postoperative evaluation of radiographic features in Chiari I malformation with special emphasis on perimeter, diameter and volume at C1 level and atlanto-axial dislocation
23. Prognostic factor affecting outcome of traumatic spinal injury
24. Prospective randomized trial to compare the efficacy of foramen magnum decompression with duroplasty vs posterior instrumented fixation for chiari malformation
25. Role of fibrin sealents in preventing CSF leak
26. Role of Gamma Knife in Craniopharyngiomas
27. Role of kynurenic acid on hyperexcitability associated with Mesial Temporal Lobe Epilepsy
28. Role of MRI in Cervical Spondylitic Myelopathy (CSM)
29. Role of MRI in predicting outcome in cervical spondylotic myelopathy
30. To study the effect of kynurenic acid on modulation of synaptic transmission in patients with Mesial Temporal Lobe Epilepsy

Completed

1. A prospective comparative study between day care spine surgery and conventional Spine Surgery
2. Congenital craniospinal dysraphism
3. Day care spine surgery: Feasibility and outcome
4. Effectiveness of facial nerve DTI tractography in Large Vestibular Schwannoma: A prospective randomized study
5. Management of traumatic cervical spine
6. Morphometric evaluation of C2 body and odontoid process and determination of hypothetical entry points for double anterior odontoid screw in Indian adult population
7. Outcome of spinal surgery in patients above 75 years
8. Pituitary dysfunction following stereotactic radiosurgery for secretory pituitary adenomas
9. Primary extradural spinal lesions
10. Primary Gamma-Knife with concurrent Temozolomide for GBM
11. Standard MRI imaging is inadequate in drug resistant epilepsy, Retrospective analysis
12. Study of Fibrillin (FBN1) and Paired Box (PAX1) gene mutations and autonomic functions in patients with developmental bony crania-vertebral junction anomalies
13. Study of Traumatic brain injury induced secondary gastrointestinal changes
14. Therapeutic Application of Bone Marrow Derived Stem Cell in Complete Spinal Cord Injury
15. Utility and diagnostic yield of image guided brain biopsy
16. Utility of postoperative CT scans in elective postoperative neurosurgical patients

AIIMS 2018-19 / 749
Collaborative projects

Ongoing

1. Assessment of Cerebral Autoregulation using NIRS in severe traumatic brain injury patients, Neuroanaesthesia
2. BIRAC BIG project 2018-2020, IIT Delhi, Department of Mechanical Engineering
3. Collaborative Neuro-engineering platform for excellence in innovation and translational research, Anatomy, Forensic Medicine, Neuroradiology, Neuropathology and IIT-D: CSE
4. Deciphering the role of ATF3 and TGFβ signaling in mesial temporal lobe epilepsy patients, Neurology
5. Development of 3D/stereoscopy based virtual reality simulation platform for endoscopic neurosurgery training and pre-operative neurosurgical planning, Anatomy, Forensic Medicine IIT-D: CSE
6. Development of a surgical suction cannula with an integrated surgeon controlled touch activated irrigation system for use in surgeries performed under the surgical microscope
7. Effect of plasma jet on tumor tissues resected from patients with tumor linked refractory epilepsy, Institute of Plasma Research, Gandhinagar
9. Role of alpha7 and alpha4-beta2 subtypes of nicotinic receptors in abnormal synaptic transmission associated with hippocampal sclerosis, Biophysics

PUBLICATIONS

Journals: 124  Abstracts: 3  Chapters in books: 7  Books: 1

PATIENT CARE

Department of Neurosurgery has two units with general neurosurgical ward under each unit (35X2 beds). There are two ICUs with 23 beds. There are now 7 elective operation theatres and one exclusive operation theatre in trauma centre. We offer world class neurosurgical facilities in all neurosurgical sub-specialties, which include—Vascular surgery, epilepsy surgery, minimally invasive cranial and spinal neurosurgery, pediatric neurosurgery, functional neurosurgery, neuro-oncosurgery, skull base and complex spinal surgeries. Following number of patients were treated by us during the year 2018-2019

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Treatment facility</th>
<th>Number</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>Outpatient department</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Total new cases</td>
<td>16,766</td>
</tr>
<tr>
<td></td>
<td>b) Total old cases</td>
<td>31,334</td>
</tr>
<tr>
<td></td>
<td>c) Paediatric new cases</td>
<td>2,086</td>
</tr>
<tr>
<td></td>
<td>d) Paediatric old cases</td>
<td>4,862</td>
</tr>
<tr>
<td></td>
<td>e) Total cases</td>
<td>48,100</td>
</tr>
<tr>
<td>3.</td>
<td>Gamma knife performed</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Total number of surgeries CNC</td>
<td>653</td>
</tr>
<tr>
<td>5.</td>
<td>Total Number of cases in Brain Suite</td>
<td>3,345</td>
</tr>
<tr>
<td>6.</td>
<td>Number of elective surgeries (JPNATC)</td>
<td>284</td>
</tr>
<tr>
<td>7.</td>
<td>Total number of surgeries</td>
<td>1,314</td>
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<td>4,659</td>
</tr>
</tbody>
</table>

Apart from this Department of Neurosurgery also run speciality clinics like Gamma Knife Clinic and Spine Clinic. Dr Deepak Agarwal has been instrumental in developing an indigenous ventilator which eventually led to discharge of 2 chronic ventilator dependent patients who were admitted in Department of Neurosurgery for a very prolonged period. He was also instrumental in improving the processes in Gamma-Knife centre leading to the highest number of Gamma-Knife surgeries in a single year in 2018.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Shashank Sharad Kale received Doctor of Science from Amity University, Uttar Pradesh for his contributions in the field of Neurosurgery.

Professor Ashish Suri received Best International Paper Award for “Simulation in skull-base neurosurgery” in the 29th Annual Conference of North American Skull Base Society, 15-17 February 2019 at Orlando, Florida, USA; Adjunct Professor, School of Information Technology, Indian Institute of Technology-Delhi; Executive Member: World Federation of Neurosurgical Societies, Skull Base Committee; Secretary General: Skull Base Surgery Society of India.

Professor Deepak Agarwal was elected Editor-in-Chief of Journal of Peripheral Nerve Surgery (JPNS); Made interim Editor-in-Chief of Indian Journal of Neurotrauma (IJNT).

Professor Deepak Gupta: First book on Craniosynostosis as Editor written by Dr Deepak Kumar Gupta: Tenets of Craniosynostosis: Surgical principles and advanced multidisciplinary care, 2018 (Thieme Medical and scientific publishers private limited) (Editor: Deepak Kumar Gupta, Ashok Kumar Mahapatra).

Dr Gurudutt Satyarthee received Faculty Research Awards 2018 in Neurosciences conferred by Honorable Union HRD Minister Mr Prakash Javadekar; Lifetime Achievement Award 2019, Marquis Who’s Who, America; Who’s Who in World Award-2019, Marquis Who’s Who, America.

Dr Vivek Tandon visited Leh to treat patients of remote areas in a charity camp organized by Asoka Mission; Chairing session at Brainspine 2018, Maldives on Neuro-Oncology.

Dr Sachin Borkar was nominated as AO Spine delegate in AO Spine Indian Subcontinent Council (AOIN) for the term 2018-2020; Nominated as treasurer of Indian Society of Peripheral Nerve Surgery for the term 2018-2020; Awarded Best Paper Award during WFNS Symposium in Kualaumpur-2018; Awarded Gold Medal for DNB Neurosurgery (December 2013 session) by the National Board of Examinations (NBE) during the convocation held in September 2018.

Dr Amadeep Jagdevan attended the training programme on the Japan-India Neurosurgical Collaboration Project, 22-26 February 2019 at Osaka, Nagano and Tokyo, Japan.

Dr Amol Raheja: March 2019—Awarded WFNS Young Neurosurgeons grant for presenting original work in the field of traumatic spinal cord injury, entitled “Serum biomarkers as predictors of severity of injury and functional outcome after acute traumatic spinal cord injury” at WFNS International Meeting 2019, Belgrade, Serbia; February 2019—Niveditha M (Thesis candidate) won first prize for award paper presentation (co-authored) in the field of Neuro-Oncology, entitled “Analysis of PDL1 expression and T-cell infiltration in different molecular subgroups of Midline Gliomas and the clinical outcome” at 30th INDSPNCON, New Delhi, India; February 2019—Niveditha M (Thesis candidate) won first prize for award paper presentation (co-authored) in the field of Neuro-Oncology, entitled “Midline Gliomas: A study of clinical outcome and associated molecular alterations” at 21st DNACON, New Delhi, India; April 2018—Won 2nd prize for Neurosurgery Oral Presentation (free paper session) in the field of traumatic spinal cord injury, entitled “Serum biomarkers as predictors of severity of injury and functional outcome after acute traumatic spinal cord injury” at 24th UP-UK NEUROCON, Ramnagar, Uttarakhand.

Dr Dattaraj Sawarkar received ‘The Alder Hey 2018 ISPNO International Traveling Fellowships Award’ for presenting paper on vertebral hemangioma in International Symposium on Paediatric Neuro-Oncology (ISPNO) 2018—Denver CO, USA (30 June-3 July 2018); as a course faculty successfully coordinated cadaver endoscopic endonasal skull base workshop (December 2018) in the AIIMS organized by Department of Neurosurgery in AIIMS Cadaver Surgical Skill Training facility (ACSSST).

Dr Rajeev Sharma received second prize in best poster award category in INDSPNCON 2019 from 15-17 February 2019.

Dr Shweta Kedia completed Landislau and Steiner’s fellowship in Neuro-Oncology and Gamma Knife at Cleveland Clinic, June 2018.

Dr Ramesh Doddamani was awarded ICMR Travel Fellowship for attending WFNS Annual Meeting 2019, Belgrade, Serbia; Participated as one of the faculty incharge in hands-on cadaveric skull base workshop conducted at CTRF laboratory.

Dr Manoj Phalak received ISPN 2018-Epstein travelling scholarship; was Chairing session at Brainspine 2018, Maldives for recent technological advances; Chairperson for recent technological advances—NSCOTT 2018, Delhi, December 2018; received Best Outgoing Student Award and Medal for diploma of Applied Epidemiology 2016-2017, awarded by NIHFW, New Delhi.

Dr Satish Verma attended short term training programme at Japan under India-Japan Collaboration Project (Conducted by AOTS, Japan)—Observership at three neurosurgical centres at Japan.
VISITING SCIENTIST
15-17 October 2018: Japanese delegation of senior Japanese Neurosurgeons

1. Professor Kenji Ohata, Osaka, Japan
2. Professor Katsumi Takizawa, Asikawa, Japan
3. Professor Hiroyoshi Akutsu, Tsukuba, Japan
4. Professor Shuho Tanaka, Tsukuba, Japan

Neuroimaging and Interventional Neuroradiology

HIGHLIGHTS
A state-of-art 128 slice dual energy CT scanner installed replacing the 10-year-old 6-slice CT scanner.

With the new CT low-dose CT protocols with modelled iterative reconstruction, a dose reduction potential of up to 60% and faster acquisition in clinical routine are now possible with the best image quality ensured. This has enhanced patient compliance, especially in children and where breath hold acquisition is required.

CT Fluoroscopy to help guided-biopsies and CT perfusion to assess cerebral perfusion especially in acute stroke have been started with the installation of the new CT scanner.

The existing 1.5T MR was upgraded to ‘silent MR’ system which has helped perform silent MR protocols which reduce patient’s anxiety during scan; reduce scan time and incidence of rescans as the patients are relaxed and cooperate to stay still during long examinations. The high gradient coil switching noise of previous system was a serious bother for many patients, especially during high-end acquisition techniques. With the upgrade, this irritant is largely removed and wide bore of the magnet has reduced claustrophobia in patients significantly.

PACS network operational in wards and OPD rooms of NSC with upgrade of the PACS server and installation of viewing stations in wards, ICUs and thin clients in OPD rooms with Wi-Fi access. Reporting of all neuro-imaging procedures made on-line with improved organization of the reporting room, making it easier to report, edit, sign out and network all studies on-line. Auto-requisitioning enabled from NSC wards on-line for CTs, MRIs, US and DSAs etc. Auto fetching of case records from PACS enabled for neuroradiology conferences. Private imaging films digitized and integrated into PACS on registration of patient UHID.

EDUCATION

Undergraduates
Provided materials and guidance to faculty for UG lectures and seminars for 6th semester MBBS students on topics: Introduction to Neuroradiology techniques, basics of brain tumour imaging, stroke imaging and congenital anomalies of the CNS. Basics of neuro imaging interpretation taught during their elective posting in neuroradiology.

Postgraduates
Postgraduate students of MD Radiology posted in the Department of Neuroradiology on rotation are trained on reporting neuroimaging (CT and MRI) and introduced to all neuroimaging protocols and are encouraged to perform them under supervision of the faculty. DM (Neuroradiology) students are trained to perform all neuroimaging procedures and assist in interventional therapeutic neuroradiology procedures, which are then discussed with them on daily basis. They are also trained to take post procedure care and management of patients undergoing neuro-interventional therapeutic procedures in the ICUs and wards. Seminars, journal clubs and case discussions are organized routinely for their orientation to the current developments and improve their iterative skills. Senior residents regularly present neuro-radiological findings in interdepartmental conferences with Neurology and Neurosurgery Departments daily which allow them to understand clinical neuroimaging interpretation skills and the art of presentation. They are posted in the biplane Neuro-interventional suites for at least one year on a rotational basis and are trained on neuro-angiographic and neuro-interventional skills.

CMEs/Workshops/Symposia/National and International Conferences Lectures delivered

SB Gaikwad

1. Endovascular Management of Intracranial Aneurysms, AIIMS MAMC PGI Neuroradiology Course, 1 April 2018, Chandigarh
2. Imaging and Interventions in Cerebral Ischaemia, AIIMS MAMC PGI Neuroradiology Course, April 2018, Chandigarh
3. Neuro-Interventions in Spinal Vascular Lesions, AIIMS MAMC PGI Neuroradiology Course, 1 April 2018, Chandigarh
4. What monitoring and which drugs do I have to have available? Pre- and Post-procedural management, heparin, heparin reversal, vasovagal reaction, ICCA STROKE-2018, 20-21 April 2018, Warsaw, Poland
5. How to deal with carotid dissections, ICCA STROKE -2018, 20-21 April 2018, Warsaw, Poland
10. Advances in Vascular and Interventional Radiology-Chairperson, Mini Symposium on International Day of Radiology, 8 November 2018, New Delhi
11. Stroke-Moderator, 3rd Annual Congress of Society of Therapeutic Neurointervention, 28 November-2 December 2018, Mumbai
12. Thrombectomy vs thromboaspiration-Panellist, 3rd Annual Congress of Society of Therapeutic Neurointervention, 28 November-2 December 2018, Mumbai
13. Today’s ICAD, 3rd Annual Congress of Society of therapeutic Neurointervention, 28 November-2 December 2018, Mumbai
14. Spinal vascular malformation, 72nd Annual Conference of Indian Radiological and Imaging Association, 20 January 2019, Chandigarh
15. Acute Ischemic Stroke Symposium, India Neuro Intervention Foundation, 18 January 2019, Mumbai
16. Stenting vs Endarterectomy in carotid disease—Which to chose and when? Brain and Heart Conclave, 26 January 2019, Nepal
17. Interventions in stroke, CME, Neuro-Imaging and Neuro-Interventions Update, 3 March 2019, Bhopal
20. Symposium on Imaging of Epilepsy, 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association—ECON 2019, 8-10 March 2019, New Delhi

Ajay Garg

1. Imaging in Aggressive Meningioma, 10th Annual Conference of Indian Society of Neurooncology, ISNOCON 2018, 6 April 2018, Delhi
2. Imaging in sleep disorders—How can it help, Ace School of Sleep medicine: Sleep Update 2018, 22 April 2018, Delhi
4. Radio imaging of pediatric glioma and embryonal tumor, Neuropathology CME Bangladesh 2018, 28 April 2018, Dhaka
5. Epilepsy imaging, Neuropathology CME Bangladesh 2018, 28 April 2018, Dhaka
6. Brain Tumors, Integrated Workshop on Neuroradiology, 30 April 2018, Dhaka
7. Imaging of Non compressive myelopathy, Integrated Workshop on Neuroradiology, 30 April 2018, Dhaka
8. Approach to ring enhancing lesions, Integrated Workshop on Neuroradiology, 30 April 2018, Dhaka
9. Imaging of Spinal Tumors, Integrated Workshop on Neuroradiology, 30 April 2018, Dhaka
11. MR Imaging in Refractory Epilepsy, 2018 CME of Indian Society of Neuroradiology, 12 May 2018, Trivandrum
14. Recent advances in Brain Tumors, CME Body Imaging Update, 28 July 2018, New Delhi
15. Epilepsy protocols and imaging substrates of refractory epilepsy, 15th National EEG Workshop and Masterclass for Epilepsy Surgery, 21 November 2018, Varanasi, UP
16. Imaging in dementia, 71st Annual State Conference of Indian Radiological and Imaging Association—Tamilnadu and Pondicherry Chapter, 15 December 2018, Chennai
19. Imaging in Movement Disorders, 4th Annual Conference of Movement Disorders Society of India—MDSICON 2019, 23 February 2019, New Delhi
20. MRI—Epilepsy protocol (Temporal and Extratemporal), 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association—ECON 2019, 8-10 March 2019, New Delhi

Leve Joseph Devarajan
6. CSF Imaging—When and How, 72nd Annual Conference of the Indian Radiological and Imaging Association (IRIA), 17-20 January 2019, PGIMER, Chandigarh

Anuj Prabhakar
2. Functional MRI—How I do it and how I use it, ISNR-i-ABCNR Programme, 27 September 2018, New Delhi, India
3. Normal cerebral angiography, AIIMS MAMC PGI Neuroradiology Course, 30 March-1 April 2018, Nehru Hospital PGIMER, Chandigarh
4. Functional MR imaging, AIIMS MAMC PGI Neuroradiology Course, 30 March-1 April 2018, Nehru Hospital PGIMER, Chandigarh

Oral papers/posters presented
RESEARCH

Funded projects

Ongoing

1. Correlation of Imaging traits with region-specific gene expression profiles in Glioblastoma Multiforme, Ajay Garg, DST, 3 years, 2018-2021

Departmental projects

Ongoing

1. Characterization of geometry of intracranial atherosclerotic lesions using computed tomographic angiography and its clinic-imaging correlations
2. Efficiency of intravenous milrinone versus intra-arterial nifedipine in the management of clinical vasospasm secondary to aneurysmal sub-archnoid hemorrhage

Completed

1. Role of Pseudocontinuous Arterial Spin Labelling in the evaluation of resting state cerebral perfusion in patients with critical cervical ICA stenosis before and after carotid artery stenting
2. Clinical and Angiographic Features of Moya-Moya Disease and their Implications in Predicting Severity, Progression and Outcome in Our Set of Patients.

Collaborative projects

Completed

1. Morphometric evaluation of C2 body and odontoid process and determination of hypothetical entry points for double anterior odontoid screw in Indian adult population, Neurosurgery
2. Role of citicoline in acute ischemic stroke-A randomized control trial, Neurology

PUBLICATIONS

Journals: 21 Chapters in books: 11

PATIENT CARE

The department works 24x7, 365 days for patient care work and regularly attends to emergencies like subarachnoid haemorrhage, stroke, acute encephalopathies, myelopathies, traumatic or iatrogenic cerebrovascular injuries etc. All requests for CT scan from outpatients and in-patients are done the same day and often immediately, so that decision can be promptly taken for patient management. There is no waiting for CT scans in this department. DSAs are regularly done for cerebral and spinal vascular studies for patients attending the Neurosciences Centre and also other departments like ENT and Ophthalmology. Similarly neurointerventional therapeutic management is routinely carried out for patients of the Neurosciences Centre as well as those referred from ENT, Ophthalmology, Paediatrics, Cardiology, Orthopaedics among others. Besides, CT scans are done in the ICUs for patients on life support or ventilator using the mobile CT scanner. Bedside x-rays are routinely done using digital portable x-ray unit or CR unit and images are uploaded to the PACS network. Portable Ultrasound is done whenever required for sick and immobile patients in the wards and ICUs of the Neurosciences Centre. All consultants and residents access PACS images through IP enabled protocol and hence can view the images from home or anywhere using internet or even using their smart phones. The departmental conference room has been upgraded for multimodality image viewing using high resolution Dicom compatible projection system, so that clinical consultants and residents can easily see their patient’s images in chronological sequence and in comparison mode on the large projection screen. Even old images and scanned private images can be viewed efficiently instantaneously which helps quick decision making.

Neuroimaging and Interventional procedures performed during the year 2018-2019

<table>
<thead>
<tr>
<th>CT Scan</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine</td>
<td>14,967</td>
</tr>
<tr>
<td>Emergency</td>
<td>4,547</td>
</tr>
<tr>
<td>CT Angiography</td>
<td>1,257</td>
</tr>
<tr>
<td>Image Guided</td>
<td>1,592</td>
</tr>
<tr>
<td>PERFUSION</td>
<td>25</td>
</tr>
<tr>
<td>HRCT</td>
<td>69</td>
</tr>
<tr>
<td>Total</td>
<td>22,457</td>
</tr>
</tbody>
</table>
Cases discussed and reviewed in Neuroradiology conferences for patient care decision making

<table>
<thead>
<tr>
<th>Conference</th>
<th>No. of cases</th>
<th>Weekly frequency</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epilepsy Cases</td>
<td>10@</td>
<td>2</td>
<td>20/week</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>40@</td>
<td>4</td>
<td>160/ week</td>
</tr>
<tr>
<td>Neurology</td>
<td>25@</td>
<td>6</td>
<td>150/ week</td>
</tr>
<tr>
<td>Neuropathology</td>
<td>4@</td>
<td>Biweekly</td>
<td>8/week</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>338/ week</strong></td>
</tr>
</tbody>
</table>

**Total = 17,576 cases per year**

AWARDS, HONOURS AND SIGNIFICANT EVENTS

20th Annual conference of Indian Society of Neuroradiology was successfully organized by Professor Shailesh B Gaikwad (Organizing secretary) in association with Drs Ajay Garg, Joseph Leve and Anuj Prabhakar on 27-30 September 2018 at “The Lalit”, Connaught Place, New Delhi. The former President of India, his excellency, Shri Pranab Mukherjee inaugurated the conference on 27 September 2018. Over 300 physicians from around the world including 15 international and 45 national faculty attended the conference. Apart from didactic lectures, hands on workshop on neuroimaging and neurointervention techniques were taught to the participants. Grand Quiz was also conducted and winners were suitably awarded with prizes and citations.

On 11-12 March, the ICCA Stroke 2019 Conference, organized by the World Federation for Interventional Stroke Treatment, under the leadership of Professor Shailesh Gaikwad, took place at the All India Institute of Medical Sciences in New Delhi. The Director, AIIMS, New Delhi, inaugurated the meeting and delivered the welcome address highlighting the importance of stroke and its treatment, especially in Asia, where embolic stroke is even more frequent than in the rest of the world.

Stroke is the 3rd cause of death and the leading cause of disability worldwide. Recently new treatment options have been developed to remove clots from the brain vessels using minimal invasive catheter techniques. This helps to reverse acute stroke patients and prevent disability.

ICCA Stroke is a conference designed to deliver knowledge and training in acute stroke interventions. Almost 200 hundred physicians from around the world came to the All India Institute of Medical Sciences (www.aiims.edu) AIIMS, New Delhi, to learn about the latest developments in this field. Technologies and techniques to open occluded brain vessels and how to triage patients (Mobile Stroke Unit) were discussed in detail. Interventions were trained on simulators and large numbers of difficult cases were reviewed and discussed. Procedures were live transmitted from the stroke center in Buffalo, New York.

The All India Institute of Medical Sciences (Professor Shailesh Gaikwad and his team, www.aiims.edu) is the leading center in neuro-interventions in India, with more than 1,000 procedures performed annually. It is a tertiary comprehensive...
stroke center where the postdoctoral structured degree course (DM) in Neuroimaging and interventional Neuroradiology is offered. It will become a WIST Training center. Professor Gaikwad is acting as the Ambassador of WIST for India.

WIST (WIST - mywist.org) aims to provide information and training to interventionists from all fields, specializing in acute stroke intervention, so that stroke patients have better access to the treatment they need to give them the best quality of life. WIST strives to ensure that acute catheter-based stroke intervention procedures are only performed by well-trained specialists.

Certificate of Appreciation was awarded to Dr Shailesh B Gaikwad by the World Federation for Interventional Stroke Treatment (WIST) for volunteering his insights, time and tireless efforts to the organization of the ICCA Stroke 2019 Congress, held on 11-12 March at AIIMS.

VISITING SCIENTIST
1. Alexander Coon, MD, Director of Endovascular and Cerebrovascular Neurosurgery, Co-Director of Comprehensive Stroke Programme, St. Joseph Hospital, Tucson, Arizona, USA

**Neuroanaesthesiology**

HIGHLIGHTS
Anaesthetic management for 4,342 (3,027 at the Neurosciences centre and 1,315 at the JPNATC) neurosurgical procedures was performed. Anaesthetic management for 636 neuroradiological procedures (428 in Angiography lab and 208 in MRI suite) was performed. Anaesthetic management for 9 patients receiving gamma knife therapy was performed. Intensive care management of 4,430 ICU patients (3510-NSC; 920-TC3 ICU, JPNATC) was performed. A total of 5,499 patients were seen in Pre-Anaesthesia Check-up (PAC) clinic OPD at NSC. A total of 833 patients (139 new and 694 old) were seen in pain clinic OPD, NSC and 412 of them were treated with nerve blocks. Five patients received nerve blocks in trauma centre.

EDUCATION
Six candidates were awarded DM (Neuroanaesthesiology) degree and one candidate was awarded fellowship in Neurocritical Care. Eight new candidate joined DM course and three candidates joined the Neurocritical care fellowship cases. Thirty-seven senior residents (both academic and non academic) received training in the department. Twenty one postgraduate students (including 9 from Lady Harding Medical College) and 24 senior residents from other anaesthesia departments received neuro-anaesthesia training.

CMEs/Workshops/Symposia/National and International Conferences
The department successfully organized AIIMS Neuroanaesthesia Update-2019, AIIMS Cadaveric Airway workshop and AIIMS Cadaveric Chronic Pain Management Course.

Lectures delivered
**Arvind Chaturvedi**
1. Anaesthetic Challenges in Intracranial Aneurysm Surgery, Central Zone ISA Meeting, September 2018, Ujjain, MP
2. Anaesthetic Challenges in Pituitary Surgery in Jaipur (RAJ), RSACP CON, 6-8 April 2018, Jaipur (RAJ)

**MP Pandia**
2. Anesthetic concerns in the surgical separation of craniopagus twins—The AIIMS experience, First International Conference on Conjoined twins, 14 February 2019, New Delhi
4. Difficult airway in Paediatric Neurosurgery, 6th Congress of Asian Society for Neuroanaesthesia and Critical Care, 15 March 2019, Nara, Japan

**Girija Prasad Rath**
1. Care and management of Brain-dead patient for organ donation, 1st International Conference on Neuroanaesthesia and Neurocritical Care and 36th Annual Conference of Bangladesh Society of Anaesthesiologists (BSA), 23 March 2019, Dhaka, Bangladesh
1. Awake Craniotomy, 1st International Conference on Neuroanaesthesia and Neurocritical Care and 36th Annual Conference of Bangladesh Society of Anaesthesiologists (BSA), 23 March 2019, Dhaka, Bangladesh

2. Cerebral Microdialysis, 1st International Conference on Neuroanaesthesia and Neurocritical Care and 36th Annual Conference of Bangladesh Society of Anaesthesiologists (BSA), 22 March 2019, Dhaka, Bangladesh

3. Near Infrared Spectroscopy (NIRS), 1st International Conference on Neuroanaesthesia and Neurocritical Care and 36th Annual Conference of Bangladesh Society of Anaesthesiologists (BSA), 22 March 2019, Dhaka, Bangladesh

4. Perioperative Management of Revascularization in Moyamoya Disease, SNACC Panel; 6th Congress of Asian Society for Neuroanaesthesia and Critical Care (ASNACC 2019), 16 March 2019, Nara, Japan

5. Recent Trials in Perioperative Neurosciences: Where We Stand? 20th Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC 2019), 15 February 2019, Gurugram, India

6. Anaesthetic Considerations of Awake Craniotomy in Children, 11th Annual Conference of Indian Association of Paediatric Anaesthesiologists (IAPA 2019), 10 February 2019, New Delhi, India

7. Anaesthetic Considerations for Awake Craniotomy for Epilepsy and Functional Neurosurgery, Annual Conference of Indian Society of Anaesthesiologists (ISACON 2018), 29 November 2018, Agra, India

8. Clinical Applications of TCD, AIIMS Neuroanaesthesia Update 2019, 5 November 2019, New Delhi, India

9. Diagnosis of Brain Death and Management of Deceased Organ Donor, AIIMS Anaesthesiology PG Assembly, 20 October 2018, New Delhi, India

10. Management of Cerebral Vasospasm, Annual Conference of South-Zone Indian Society of Anaesthesiologists (SZISACON 2018), 9 September 2018, Tirupati, India

11. Transcranial Doppler, NICE Symposium, 12 August 2018, Secunderabad, India

Hemanshu Prabhakar


2. Neurological examination, 2nd Neurocritical Care Refreshercourse, ENLS and Simulations, Indraprastha Apollo Hospitals, 16 November 2018, New Delhi

3. PBLD on Traumatic cervical spine management, Indraprastha Apollo Hospitals, 16 November 2018, New Delhi

Gyaninder Pal Singh

1. Anaesthesia in Intraoperative Neurophysiological Monitoring, IONM 2018, 4 May 2018, New Delhi


3. Postoperative recovery profile in Neurosurgical Patients: Which is the better choice, Inhalational vs TIVA, 2nd Annual Neurocritical Care Update 2018, 22-24 March 2018, Gurugram

4. Child for Hydrocephalus for VP Shunt, AIIMS Anaesthesiology Post-Graduate Assembly, 18-21 October 2018, New Delhi

5. Airway, Breathing and Sedation in Neurocritical Care Patient, Acute Neurological Care, 13-14 February 2019, Gurugram


7. Disorders of Osmolality in ICU, Update on Fluid, Electrolyte and Acid Base Disorders, 16-17 March 2019, New Delhi

Ashish Bindra

1. Trigeminal Neuralgia, Chronic Interventional Pain Management Course, 13 October 2018, New Delhi

2. Laryngoscopy, Cadaveric Airway Management Course, 23 October 2018, New Delhi

3. Panel on Post Traumatic Epilepsy, Medanta Neurocritical Care Conference, 2 October 2018, New Delhi

4. Latest modalities in treatment of Trigeminal Neuralgia, International Conference of Pain, 28 October 2018, Jodhpur

5. Transfusion trigger in Neurotrauma ICU, Annual AIIMS Neurotrauma Conference, 28 November 2018, New Delhi

6. Transfusion trigger in Neurotrauma, AIIMS Neuroanaesthesia Update, 3 November 2018, New Delhi

7. Management of Status Epilepticus, Acute Neuro Care, 14 February 2019, Gurugram
8. Anaesthesia for Epilepsy Surgery, India Society of Neuroanesthesiology and Critical Care, 15 February 2019, Gurugram
9. Anaesthesia for Epilepsy Surgery, ISNACC Webinar Classroom, 9 September 2018
10. Hypothermia, ISNACC Webinar Classroom, 7 October 2018
11. Anaesthesia in IntraoperativeMRI Suit, ISNACC Webinar Classroom, 23 December 2018

Niraj Kumar
1. Vascular access, AIIMS -EMSONO, 11 August 2017, New Delhi
3. Ultrasound as an aid to airway, Cadaver Airway Workshop *Course Director, 23 September 2018, New Delhi
4. Caudal block, Interventional pain management workshop, 13 October 2019, New Delhi
5. Workshop for technologist, AIIMS Neuroanesthesia Update 2018, Course coordinator*, 2-4 November 2018, New Delhi
6. Point of care ultrasound, ACCC AIIMS, 8-9 December 2018, New Delhi
7. Traumatic Spine Injury (TSI) and USG in Neurological Emergencies, ANC (ISNACC), 13-17 February 2019, Gurugram
8. Role of technologists in cervical spine injury management (Moderator), NCOTT-2018, 2 December 2018, New Delhi

Keshav Goyal
1. Awake Craniotomy, Nuggets for newbies, Neuroanesthesiology and Neuro Critical Care Update 2018, 18-19 August 2018, Lucknow (UP)
4. Prognostic value of serially estimated serum procalcitonin levels in traumatic brain injury patients with or without extra cranial injury—A longitudinal observational study, International Conference on Spreading Depolarizations (ICSD), 22-24 September 2018, Boca Raton, Florida (USA)
6. Facet Joint Block: Considerations and tips, 3rd Cadaveric Pain Workshop, 13 October 2018, New Delhi
7. Anaesthesia for Craniotomy for aneurysm surgery and brain tumor, AIIMS Anaesthesiology Post-Graduate Assembly 2018 (APGA18), 18-21 October 2018, New Delhi
8. Chin Chest Deformity (Case discussion), AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, New Delhi
9. Quiz Master, AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, New Delhi
10. Advances in Multimodality Neuromonitoring, Third Conference of Nepalese Society of Critical Care Medicine (NSCCM), 16-17 November 2018, Kathmandu, Nepal
11. Recent trial in Critical Care—Panelist, Third Conference of Nepalese Society of Critical Care Medicine (NSCCM), 16-17 November 2018, in Kathmandu, Nepal
12. Intracranial Hypertension, ENLS in 3rd Conference of Nepalese Society of Critical Care Medicine (NSCCMCON 2018), 18 November 2018, Kathmandu, Nepal
14. Sodium and fluid management in Surgical ICU patients, 1st Acute Critical Care Course (ACCC) for Interns, 8-9 December 2018, New Delhi
15. Traumatic Brain Injury: Acute Emergency Management *Course Director and coordinator, Acute Neuro Care (ANC), 13-14 February 2019, Gurugram, Haryana

Navdeep Sokhal
1. Percutaneous Tracheostomy, Airway Management Workshop: Cadaver Training and Research
2. Facility, 23 September 2018, New Delhi
3. Stellate Ganglion Block, Cadaveric Pain Conference, 13 October 2018, New Delhi
4. Sepsis—What is new, AIIMS Neuroanaesthesia Update, 4 November 2018, New Delhi
5. Respiration—Applied physiology, AIIMS Critical Care Course for the Interns, 8 December 2018, New Delhi
6. Meningitis and Encephalitis, Acute Neuro Care, 14 February 2109, Gurugram

Charu Mahajan
1. Acute management of patients having Traumatic brain injury, Neuroanaesthesiology and Neurocritical Care Update, 2018, 19 August 2018, SGPGIMS, Lucknow
2. Aneurysmal SAH, Neurocritical Care and Emergency Neurological Life Support Refresher and Certificate Course, 16 November 2018, Indraprastha Apollo Hospitals, New Delhi
3. Clearing the Visibility of this Gaseous Conundrum: Do we have one Ideal Volatile in Neuroanaesthesia? Annual Medanta Neuro Critical Care Conference 2018, 31 August-2 September 2018, Medanta, The Medicity, Gurugram

Indu Kapoor
1. Transcranial Doppler [TCD], Advanced Neuromonitoring Workshop during 6th Annual MIND Update 2018, Max Institute of Neurosciences, Dehradun in association with Indian Society of Neuroanesthesia and Neurocritical Care, 12 May 2018, Dehradun
2. Massive hemorrhage in Neuroendoscopic procedures, Neuroanaesthesiology and Neurocritical Care Update 2018, Department of Anaesthesiology, Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGIMS), Lucknow, 19 August 2018
3. Basic of Neuropharmacology in Neurocritical Care, Indraprastha Apollo Hospitals, 16 November 2018, New Delhi

Surya Kumar Dube
1. Donor Screening and Optimization, In Service Training Course of Resident doctors on Deceased Organ and Tissue Donation, Organized by ORBO, 17 April, 22 May, 10 August, 19 November and 10 December 2018, AIIMS, New Delhi
2. Brain protection during and after cardiac resuscitation, Practices and Advances in Cardiac Anaesthesia, 21 September 2018, AIIMS, New Delhi
3. Double Lumen Tube, AIIMS Cadaveric Airway Workshop, 23 September 2018, JPNATC, New Delhi
4. Trans Cranial Doppler (Indices and Ratios) as a part of faculty for the Transcranial Doppler workshop, 6th AIIMS Neuroanaesthesia Update, 2 November 2018, AIIMS, New Delhi
6. Potassium Imbalance, Acute Critical Care Course, 8 December 2018, AIIMS, New Delhi
7. Diabetic Ketoacidosis, Acute Critical Care Course, 9 December 2018, AIIMS, New Delhi
8. Goal Directed Fluid therapy in Neurosurgery, Quarterly ISNACC Delhi Chapter Meeting, AIIMS, 19 December 2018, New Delhi

Oral papers/posters presented


RESEARCH

Funded projects

Ongoing

1. A randomized control trial for evaluation of transfusion related immuno-modulation in patients with meningioma, Girija Prasad Rath, AIIMS, 2 years, 2018-2020, Rs 5 lakhs
2. Comparing the use of needle guidance versus free hand technique in performing ultrasound guided central venous cannulation: A prospective randomized trial, Niraj Kumar, AIIMS, 1 year, 2016 ongoing, Rs 4.6 lakhs
3. Assessment of Cerebral Autoregulation using NIRS in severe traumatic brain injury patients, Keshav Goyal, AIIMS, 2 years, January 2016, Rs 5 lakhs
4. Effect of decompressive craniectomy on jugular venous oximetry in patients with severe traumatic brain injury, Navdeep Sokhal, AIIMS, 2 years, 2017-2018, Rs 2.5 lakhs
5. Study of muscle enzyme elevation in neurosurgery and its relevance in postoperative acute kidney injury: A pilot study, Surya Kumar Dube, AIIMS, New Delhi, 1 year, 2018-2019, Rs 3 lakhs
6. Comparison of fiber-optic endotracheal intubation with and without the use of air-Q as a conduit in patients with cervical spine injury: A pilot study, Gyaninder Pal Singh, AIIMS, New Delhi, 3 years, 2015-2018, Rs 2 lakhs
7. Does real time ultrasonography during bronchoscopy guided percutaneous tracheostomy confer any benefit: A preliminary Randomized controlled trial, AIIMS, Rs 0.83 lakhs

Completed

1. Use of indirect calorimetry to assess outcome in stroke patients: A comparison of standard versus weight-based formula, Girija Prasad Rath, GE Health Care Pvt Ltd, 2 years, 1 March 2016-29 February 2018, Equipment
2. Assessment of effect of cerebral perfusion pressure augmentation in severe head injuries by monitoring of regional energy metabolism by cerebral microdialysis, Ashish Bindra, AIIMS, 2 years, 2016-2018, Rs 4.95 lakhs
3. Cerebroprotective role of Dexmedetomidine in Epilepsy Surgery, Ashish Bindra, AIIMS, 2 years, 2012-2014, Rs 2.62 lakhs

Departmental projects

Ongoing

1. A comparison of two non-invasive methods for intraoperative estimation of cardiac output in neurosurgical patients under general anaesthesia
2. A prospective randomized controlled trial to study the effect of two different tidal volumes (6-8 mL/kg vs 12-15 mL/kg) on the time to wean patients from ventilator having cervical spine injury (C1-C5)
3. Cardiovascular complications after traumatic spinal cord injury
5. Comparison of C-MAC video-laryngoscope with D-Blade, C-MAC video-laryngoscope with standard blade, and Macintosh Laryngoscopes for intubation with cervical spine immobilization: A randomized study
6. Comparison of fibreoptic endotracheal intubation with and without the use of air-Q as a conduit in patients with cervical spine injury: A pilot study
7. Comparison of propofol and ketofol on transcranial motor evoked potentials in patients undergoing thoracolumbar spine surgery
8. Correlation of NIRS with intraoperative transfusion trigger in paediatric patients posted for Posterior Fossa Tumour Excision
9. Decompressive craniectomy on Jugular Venous Oximetry (SJVO2) in patients with severe Traumatic Brain Injury (TBI)
10. Effect of ketamine infusion as neuroprotective agent on neurological outcome in patients with severe traumatic brain injury: A randomized, controlled, pilot study
11. Effect of neuroradiologic interventions on regional cerebral oxygenation in patients with anterior circulation aneurysms: An observational study
12. Effect of percutaneous Tracheostomy on Optic Nerve Sheath diameter [TONS trial]
13. Effect of propofol versus sevoflurane on cerebral oxygenation in childhood Moyamoya Disease—A Near Infrared Spectroscopy [NIRS] Study
14. Effect of stellate ganglion block for cerebral vasospasm following aneurysmal subarachnoid haemorrhage on cardiac rhythm. A holter-based study
15. Effect of surgical revascularization on regional cerebral oxygenation in patients with Moyamoya disease
17. Evaluation of intratracheal lignocaine as compared to normal saline to reduce emergence reactions in the patients undergoing Endoscopic Transphenoidal Pituitary Surgery: A double blind randomized controlled trial
18. Evaluation of the GCS-Pupils score for prognosis in traumatic brain injury—The COMA study
19. Incidence and risk factors for delayed extubation after Posterior Fossa Surgery—A prospective observational study
20. Incidence and risk factors of deep vein thrombosis in patients undergoing intracranial tumor surgeries—A prospective study
21. Intraoperative use of dexmedetomidine in large vascular Meningiomas
22. Perioperative anesthetic management and factors affecting outcome in Robotized Stereotactic Assisted (ROSA) intracranial procedures: A retrospective analysis
23. Role of urinary neutrophil gelatinase associated lipocalin (U-NGAL) as early biomarker for prediction of acute kidney injury in patients treated with colistin
24. Serum lactate, base deficit and glucose levels as prognostic markers of severe traumatic brain injury
25. The effect on Dexmedetomidine on ECoG in patients undergoing epilepsy surgery under desflurane anesthesia
26. To compare the effect of goal directed fluid therapy versus standard fluid regimen on the cuff leak volume in patients undergoing spine surgery
27. To evaluate the effect of change in end tidal carbon dioxide on optic nerve sheath diameter under general anaesthesia
28. To study the effect of Goal Directed Therapy (GDT) based fluid regimen on the cuff leak volume in patients undergoing thoracic, Lumbar and Thoraco-Lumbar Spinal Surgery
29. To study the risk factors and causes of extubation failure in head injury patients
30. Use of non-invasive hemoglobin estimation for blood transfusion in spine surgeries; a comparison with conventional hemoglobin estimation method—A pilot study

Completed

1. Anesthetic management in patients with Tetralogy of Fallot (TOF) with cerebral abscess: A retrospective study
2. Assessment of airway in patients with acromegaly undergoing surgery: Predicting successful tracheal intubation
3. Changes in Thromboelastometry in Patients Undergoing Epilepsy Surgery
4. Comparison of Full Outline of Unresponsiveness [FOUR] score and conventional scores in predicting outcome in aneurysmal subarachnoid hemorrhage
5. Comparison of propofol versus sevoflurane anaesthesia in subarachnoid haemorrhage patients undergoing clipping for aneurysm
7. Effect of dexmedetomidine on dynamic cerebral autoregulation in patients with supratentorial tumors under sevoflurane anesthesia
8. Effect of magnesium and lignocaine on postcraniotomy pain: A comparative, randomised, double-blinded, placebo-controlled study
9. Effect of neuroradiologic interventions on regional cerebral oxygenation in patients with anterior circulation aneurysm: An observational study
10. Effect of two anaesthetic regimes with dexmedetomidine as adjuvant on transcranial electrical motor evoked potentials during spine surgery: A pilot study
11. Evaluation of effect of intravenous Dexmedetomidine on intraoperative blood loss during intracranial meningioma surgery: A randomized controlled study
13. Perioperative anesthetic management and factors affecting outcome in Robotised Stereotactic Assisted (ROSA) intracranial procedures: A retrospective analysis
14. Randomized trial comparing two techniques of fibreoptic orotracheal intubation under general anaesthesia: Fibreoptic intubation with and without the use of air-Q intubating laryngeal airway
15. Role of Urinary Neutrophil Gelatinase Associated Lipocalin (U-NGAL) as early biomarker for prediction of acute kidney injury in patients treated with colistin
16. The effect of anaesthetic exposure in presurgical period on delayed cerebral ischemia, and neurological outcome in patients with aneurysmal subarachnoid haemorrhage undergoing clipping of aneurysm—A prospective observational study
17. To compare the effects of Dexmedetomidine and Lignocaine on intracranial and systemic pressure dynamics after chest physiotherapy and tracheal suctioning in patients with severe traumatic brain injury, A randomized, blinded pilot study

Collaborative projects

Completed

1. A week in neurocritical care unit: Point prevalence observational study in Neurocritical care: PRINCE Study, July 2014, (IEC/NP-190/2014 RP -03/2014), Baylor College of Medicine, Houston, Texas
2. An evaluation of diaphragmatic movement by M-mode sonography as a predictor of successful extubation during routine surgical procedures, Anesthesia, Radiodiagnosis
3. Comparison of C-MAC video-laryngoscope with D-Blade, C-MAC video-laryngoscope with standard blade, and Macintosh Laryngoscopes for intubation with cervical spine immobilization: A randomized study, Neuroanesthesiology and Critical Care
4. Effect of Lidocaine infusion on hemodynamics and recovery in patients undergoing endoscopic pituitary surgery: A multicentre, randomized control trial, Department of Anaesthesiology, Health Sciences Centre, University of Manitoba, Winnipeg, Canada
5. Effect of magnesium and lignocaine on postcraniotomy pain: A comparative, randomised, double-blinded, placebo-controlled study, Biochemistry
6. Effect of two anaesthetic regimes with dexmedetomidine as adjuvant on transcranial electrical motor evoked potentials during spine surgery: A pilot study, Physiology
7. Prospective study on the effectiveness of chlorhexidine gluconate impregnated patch (BIOPATCHR) in reducing the incidence of central line associated blood stream infection (CLABSI), Department of Microbiology, JPNATC, AIIMS
8. Surveillance of Blood Stream Infections (BSI) at a referral Indian hospital surveillance of Blood Stream Infections (BSI) at a referral Indian hospital, Department of Microbiology, JPNATC, AIIMS

PUBLICATIONS

Journals: 72 Abstracts: 7 Chapters in books: 5 Books: 3

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Arvind Chaturvedi was selected in Selection Committee of ESI Medical College, Faridabad; Reviewer of Sultan Quaboos University Medical Journal (SQUMJ), Oman, JOACP; Continued as Executive Council Member of ISNACC.

Professor Mihir Prakash Pandia chaired a research paper session in 66th Annual Conference of Indian Society of Anaesthesiologists held at Agra on 26-29 November 2018; Chaired a session in the 20th Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC-2019) held at Gurgaon on 16 February 2019; Chaired a research paper session in the 6th Congress of Asian Society for Neuroanaesthesia and Critical Care held from 14 to 16 March 2019, held at Nara, Japan.

Professor Girija Prasad Rath organized the “2nd AIIMS TCD Workshop”, and actively contributed for the ‘AIIMS Neuroanaesthesia Update 2018’ as Member of Organizing (Scientific) Committee; Nominated as the Member of Scientific Committee of the Society for Neuroscience in Anesthesiology and Critical Care (SNACC, USA); Continued to be its member of Communications Committee and Assistant Editor of SNACC Newsletters; Continued to hold the post of Executive Editor, Journal of Neuroanaesthesiology and Critical Care (JNACC), Editorial Board Member of Indian Journal of Anaesthesia (IJA), The Indian Anesthetists’ Forum, Associate Editor of Indian Journal of Clinical Anaesthesia (IJCA), and Web Editor, Indian Society of Neuroanaesthesiology and Critical Care (ISNACC); Continued to serve as the International Advisory Board Member of Neuroanaesthesia Essays and Researches (AER) and Anaesthesiology and Pain Medicine (AAPM), and peer-reviewer of reputed international journals such as Minerva Anestesiologica, Journal of Neurosurgical Anesthesiology, Neurocritical Care, BMC Anaesthesiology, and Journal of Clinical Anaesthesia; Continued to be involved (Core
faculty) in the in-service training programme (Organized by ORBO, AIIMS) of nurses and resident doctors for deceased organ and tissue donation; Nominated as EXCO member (India) for Asian Society of Neuroanaesthesia and Critical Care (ASNACC) and initiated its website being the web editor; Invited faculty/speaker for the international scientific meetings such as Pre-ASNACC Meeting at Nara, Japan; SNACC Annual Meeting at San Francisco, USA; SNACC Panel speaker during 6th Congress of ASNACC held at Nara, Japan; and speaker at 1st International Conference on Neuroanaesthesia and Neurocritical Care and 36th Annual Conference of Bangladesh Society of Anaesthesiologists (BSA).

Professor Hemanshu Prabhakar was featured in Limca Book of Records 2019.

Dr Ashish Bindra conducted Cadaveric Interventional Pain Management Workshop on October 2018 at Cadaveric Training and Research Facility, JPNA Trauma Centre, New Delhi; Chairperson: Management of Neuropathic Pain, Indian Society of Pain Clinicians Conference (ISSPICON), 16 November 2018, Lucknow.

Dr Niraj Kumar got admission in fellowship programme: (CMETI—Part Time Clinical Research Methodology and Evidence Based Medicine) at AIIMS, New Delhi for the session January 2019; Based Medicine Instructor (Faculty) of ANLS, ACCC, AIIMS—EM-SONO, AUTLS, AIIMS cadaver airway, Interventional pain management workshop courses; As a faculty of ORBO team facilitates knowledge, awareness amongst the hospital staff and also actively involved in procedures related to organ procurement; Course director of Cadaveric Airway Management Course (23 September 2018) at JPNATC, New Delhi; Executive member of organizing committee of AIIMS Neuranesthesia Update 2018; AIIMS, CADAVERIC—Interventional pain management workshop.

Dr Keshav Goyal was awarded preceptorship in Neurocritical Care and Visiting Neurological intensive care as an observer to Cleveland Clinic, Ohio, USA from March to May 2018; Awarded preceptorship in Anaesthesiology Institute and Visiting Neuroanaesthesiology Department as an observer to Cleveland Clinic, Ohio, USA from May to June 2018; Awarded ISNACC Travel Grant for 2018-2019 by National Society of Neuroanaesthesiology and Critical Care (ISNACC); Member of Core Faculties of AIIMS Advanced Life Care Support (ACLS); Introductory course in September 2015 at JPNATC, New Delhi; Renewed ACLS and BLS instructor status: November 2018; Emergency Neurological Life Support (ENLS) Instructor Recertification, November 2018; Course director cum Coordinator of 1st Acute Neuro Care (ANC) affiliated by National Society (ISNACC), February 2019 at Artemis Hospital, Gurgaon; Member of Trainee Engagement Committee of SNACC, USA.

Dr Navdeep Sokhal successfully organized “AIIMS Critical Care Course for Interns” as Course Director on 8-9 December 2018. This course was much appreciated by Dr Randeep Guleria, Director AIIMS and Dr Ashok Deorari, Chairman SET facility for its paperless design and was supported by Chief JPNATC and HOD Neuro Anaesthesia and Critical Care. In this course Interns were trained for various lifesaving skills on mannequins and taught basic concept of critica.

Clinical Neuropsychology

Clinical Neuropsychology (CNP), Neurosciences Center, has made an honest attempt to provide Continuum of Health Care as per WHO. All of this has been possible with the support of team comprising of esteemed seniors, colleagues and students of AIIMS. The enthusiasm and willingness of the PhD students has played a major part in delivering ‘standard of care’. The faculty had an honor to be invited as Chairperson at conferences and present as an invited speaker or otherwise in this conference and many more. Talks were organized as a part of Lecture series on Psychological Sciences by eminent international and national speakers. It was a pleasure addressing the Neuropsychology Concerns of the Clinicians for their patients and was able to deliver value added ‘standard of care’. Together we were able to show a good outcome of this discipline.

Lectures delivered

Ashima Nehra

1. Neuropsychological Disability: A Latent Perspective in Neurological Conditions, 76th Annual Conference of International Council of Psychologists, 23-26 June 2018, MONTREAL QC, Canada


7. A road to Neuropsychology in India, PSYCON-2018; National Conference on Psychology Today—The Road Ahead, Shobhit University, Meerut


RESEARCH

Funded projects

Ongoing

1. To study the effectiveness of Repetitive Transcranial Magnetic Stimulation (rTMS) on Activities of Daily Living, Behavioural and Cognitive Ability (A-B-C) of Parkinson’s Disease patients, Ashima Nehra, DBT, 3 years, 2018-2021, Rs 30.33 lakhs

Departmental projects

Ongoing

1. Development of a neurocognitive remediation package and Phase II trial for assessment of its efficacy in cognitive functions among patients with Schizophrenia

2. Development and efficacy of comprehensive neuropsychological rehabilitation for improving cognition and quality of life in persons with drug refractory epilepsy: A randomized controlled clinical trial

3. To study the effectiveness of Repetitive Transcranial Magnetic Stimulation (rTMS) on activities of daily living, Behavioral and Cognitive Ability (A-B-C) of Parkinson’s Disease patients

4. Social cognition in drug refractory epilepsy and effect of epilepsy surgery

5. An assessment of neurodevelopment outcomes in children with transposition of great arteries with intact ventricular septum who underwent primary arterial switch operations in infancy with integrated ECMO support compared to children who underwent surgery without integrated ECMO support

6. Assessment of Cognitive, Neuroanatomical and Neurofunctional abnormalities in adults with Type 1 Diabetes

7. To study the impact of Laparoscopic Mini Gastric Bypass (MGB) on Weight Loss, Comorbidities and quality of life in obese patients undergoing bariatric surgery, A prospective and retrospective non randomized observational study

Completed


2. Study of cognitive function in patients with chronic kidney disease and the effect of renal transplantation

3. A study to assess the lived in experiences of critically ill patients who were on mechanical ventilation in medical-surgical ICU

4. A cross sectional study to evaluate the correlation of gross motor functions, Hand functions and quality of life of family of children with cognition in Cerebral Palsy

5. A descriptive study to assess the cognitive function and quality of life of post traumatic brain injury patients attending neuro surgery OPD at JPNATC with a view to develop an informational booklet at AIIMS, Delhi

6. Correlation between improved cerebral perfusion and neuro-cognitive changes following surgical revascularization in Moya Moya Disease
Collaborative projects

**Ongoing**

1. Development of a neurocognitive remediation package and Phase II trial for assessment of its efficacy in cognitive functions among patients with Schizophrenia, Clinical Neuropsychology, Psychiatry, Biostatistics
3. To study the effectiveness of Repetitive Transcranial Magnetic Stimulation (rTMS) on Activities of Daily Living, Behavioral and Cognitive Ability (A-B-C) of Parkinson’s Disease patients, Clinical Neuropsychology, Neurology, Biostatistics
4. Social cognition in Drug Refractory Epilepsy and Effect of Epilepsy Surgery, Neurology, Clinical Neuropsychology
5. An assessment of neurodevelopment outcomes in children with transposition of great arteries with intact ventricular septum who underwent primary arterial switch operations in infancy with integrated ECMO support compared to children who underwent surgery without integrated ECMO support, Cardiothoracic and Vascular Surgery, Cardiac Anaesthesia, Clinical Neuropsychology
6. Assessment of cognitive, Neuro-anatomical and Neuro-functional abnormalities in adults with Type 1 Diabetes, Endocrinology and Metabolism, Psychiatry, Clinical Neuropsychology
7. To study the impact of Laparoscopic Mini Gastric Bypass (MGB) on Weight Loss, Co-morbidities and quality of life in obese patients undergoing bariatric surgery, A prospective and retrospective non randomized observational study, General Surgery, Gastroenterology, Anesthesiology, Clinical Neuropsychology

**PUBLICATIONS**

Journals: 2    Abstracts: 1

**PATIENT CARE**

**Facilities available in the department**

Psychological assessment includes neuropsychological assessment/evaluation including clinical diagnosis (as per the Gold Standards), comprehensive interview; behavioural observations, assessment with series of neuropsychological tests, interpretation, report writing neuropsychological formulation including General Intellect (Hemispheric Assessment), Cognition, Higher Level Executive Skills (e.g. problem solving, reasoning) Attention and Concentration, Memory and Learning, Motor and Sensory Skills, Perceputo-motor Functioning/Visuo-spatial skills, Mood and Personality (Orbito Frontal Functions), Language/ Aphasia Assessment. Neuropsychological retraining including basic function approach to improve the functional skills improving basic pre morbid functions of persons daily life; neuropsychological reorganization including compensation for the deficit when deficient function can neither be reorganized nor restored, Clinic Based Therapy; Home Based Therapy. Neuropsychological retraining including basic function approach to improve the functional skills improving basic pre morbid functions of persons daily life; Neuropsychological reorganization including compensation for the deficit when deficient function can neither be reorganized nor restored, clinic based therapy; home based therapy.

**Community services/camps etc**

Neuropsychological Rehabilitation, Vocational Guidance, Supportive Psychotherapy, Directive Counselling to the patients and family members which is an important aspect of patient care in terms of management of any neurological condition. All these services are covered under the specialized clinics of Neuropsychological Rehabilitation (NR) and Cognitive Disorders and Memory Clinic (CD&M).

**Outpatient service (OPD):** There are 4 Clinical Neuropsychology OPDs/week, with 3 registries:

1. **Clinical Neuropsychology (CNP) Clinic:**
2. **Specialized Clinics:**
   a. Neuropsychological Rehabilitation (NR) Clinic
   Neuropsychological Rehabilitation, Cognitive Retraining/Restructuring, Basics Skill Training, Functional Re-training, Speech and Language Rehabilitation, Psychosocial Therapy, Guidance and Counselling, Individual Therapy, Family Therapy, Vocational Guidance, Holistic/eclectic Approach Therapy (depending on the patient’s needs).
   b. Cognitive Disorders and Memory (CDM) Clinic
   Cognitive Disorders and Memory Clinic, Memory Assessment, Screening for Cognitive Decline, Cognitive Rehabilitation for Dementia/ Alzheimer's Dementia, Cognitive Re-training for decline in Memory/Executive Functioning, Management of Cognitive/Memory Disorders, Identify and treat pseudo-dementia, Education: Patients, carers, trainees, colleagues, and the general public, Family guidance, Monitoring of progress and response to therapy.
Referrals

Patients are referred from Neurology, Paediatric Neurology, Neurosurgery, Psychiatry, JPN Trauma Centre, Gamma Knife Unit, Neuroanaesthesia, Physical rehabilitation and medicine (PMR), ENT, Nephrology, Dermatology, Gynaecology, Endocrinology, Nuclear Medicine, Medical superintendent’s office (for medico legal cases), etc.

Referrals are given to establish a ‘baseline’ of skills/weaknesses in order to measure change in the future, to identify strengths and weaknesses in specific areas, to differentiate among illnesses, which can then direct appropriate treatment, to plan for treatment to use strengths to compensate for weaknesses, to assess everyday functional skills to plan for assistance or treatment, etc.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Nominated by International Council of Psychologists (ICP) to take up the position to be a Member and to participate in WHO Rehabilitation Competence Framework Working Group. The Working Group is mandated to support the development of Rehabilitation Competence Framework, provide expert opinion on its structure, language, scope and content to ensure that it achieves its intended aims. Furthermore, the working group is tasked with helping Coordinate the dissemination of drafts for peer review by their respective organizations or specialist groups and support the translation of feedback into concrete and meaningful recommendations; Nominated as Member Ethics Board. Institute of Home Economics, University of Delhi; Member and Chaired Session: National Congress on “Developing a Model Curriculum on Disability Studies for Higher Education in Indian Universities” on 7 October 2018 (Sunday); Invited as resource person by CSIR National Institute of Science, Technology and Development Studies (NISTADS). One of the constituent laboratories under Council of Scientific and Industrial Research (CSIR) working as policy research institute, on ‘Mind consciousness and beyond: building on vedantic metaphysics’ (Attended the meeting); Invited to be panelist of Expert group meeting on aphasia in India, Under the Chairpersonship of Professor Apoorva Pauranik (under the Indian Academy of Neurology initiative); Invited to be a member of Governing Board for the Alzheimer’s and Related Disorders Society of India, Delhi.

VISITING SCIENTIST

1. Lecture as a part of lecture series on Advances in Psychological Sciences by Professor Ashum Gupta, Director, Gandhi Bhawan, Former Head, Department of Psychology, University of Delhi
2. Professor Vaishna Narang, Professor of Linguistics, Former Dean School of Language, Literature and Culture Studies, Jawahar Lal Nehru University, New Delhi, India. Dr Mel Kaushansky from Vancouver, British Columbia.

Neurobiochemistry

HIGHLIGHTS

- One master student and two PhD students pursuing their dissertation under my supervision
- Introduced new diagnostic test TPMT screening in Biochemistry, NSC, Diagnostic Division
- Participating as a content provider for MOOCs-SWAYAM, an MHRD, National Mission on Education that will help to improve the education system in India

EDUCATION

CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered

Ashok Sharma

1. Epigenetic regulation of POTE genes in Epithelial Ovarian Cancer, Integrating Cancer Research into Comprehensive Disease Management: Recent Breakthroughs, 28 February-3 March 2019, Chandigarh

Oral papers/posters presented

1. Jha S, Das D, Mehra T, Mathur S, Karpf AR, Sharma A. Epigenetic regulation of POTE genes in Epithelial Ovarian Cancer, Integrating Cancer Research into Comprehensive Disease Management: Recent Breakthroughs, 28 February-3 March 2019, PGI MER, Chandigarh
RESEARCH

Funded projects

Ongoing

1. Genome—Wide DNA methylation and genomic instability profiling and evaluating its potential as a biomarker and immunotherapeutic target for Ovarian Cancer, Ashok Sharma, DBT—Ramalingaswami Project, 5 years, 2015-2020, Rs 32.5 lakhs

2. Nuclear architecture as an epigenetic regulator in pericentromeric localized cancer-testis/germline antigen POTE expression in Ovarian Cancer, Ashok Sharma, DST, Ministry of Science and Technology, 3 years, 2017-2020, Rs 55 lakhs

3. A pilot study to analyze serum levels and intra-tumour expression of cancer-testis antigen POTEE as a new biomarker for ovarian cancer, Ashok Sharma, DHR-ICMR, 2 years, 2018-2020, Rs 10 lakhs

4. Molecular characterization of endometrial cancer and its correlation with clinicopathological features, Ashok Sharma, AIIMS, 2 years, 2018-2020, Rs 10 lakhs

5. Epigenetic regulation of pro-inflammatory and anti-inflammatory cytokine gene in posttraumatic sepsis and septic shock-defined by sepsis-3 classification. An exploratory study in major trauma patients, Kapil Dev Soni, AIIMS, 2 years, 2019-2021, Rs 10 lakhs

6. Estimate the serum levels of cancer-testis antigen POTE as a biomarker in Epithelial Ovarian Cancer, Dr Ashok Sharma, AIIMS, 2 years, 2016-2018, Rs 10 lakhs

Departmental projects

Ongoing

1. Cloning and functional analysis of cancer testis antigen POTEE in Epithelial Ovarian Cancer

2. Functional characterization, expression, and clinical significance of cancer-testis/germline antigen POTEB in Ovarian Cancer

3. Role of 3D genome architecture as epigenetic regulator of pericentromeric localized cancer-testis/germline antigen POTE in Cancer

Completed

1. Effect of DNA methylation in expression of cancer-testis/germline gene POTEE in Ovarian Cancer

2. DNA methylation effect on POTEB expression in Epithelial Ovarian Cancer

Collaborative projects

Ongoing

1. Role of PARP1 and γ-Glutamylcysteine Synthetase Inhibitor in Cisplatin Sensitivity and Correlation with DNA Methylation in Ovarian Cancer, Medical Oncology

2. Impact of Yoga and Meditation on Epigenetic Profile in Rheumatoid Arthritis, Anatomy

3. The role of Leukotriene A4 hydrolase gene polymorphism and clinical outcome correlate in corticosteroids treated tubercular meningitis patients, Neurology

4. One carbon metabolism and cognitive impairment in older Indians, Geriatric Medicine

5. Estimation of novel proteins among older subjects as biomarker for cognitive impairment, Geriatric Medicine

6. To evaluate the effect of intralipid supplementation on implantation rate in women with two or more failed IVF/ICSI with elevated natural killer cell levels—A pilot randomized controlled trial, Obstetrics and Gynaecology

7. Expression of cancer testis antigen POTE in Ovarian Tumors and its clinical significance: A pilot study, Obstetrics and Gynaecology

8. Molecular characterization of Endometrial Cancer and its correlation with clinicopathological features, Pathology

Completed

1. Role of peroxisome proliferator activated receptor Alpha (Ppar Alpha) in trophoblast invasion, Biochemistry
**PUBLICATIONS**

Journals: 3

**PATIENT CARE SERVICES**

Providing routine diagnostic services in Biochemistry Division, NSC. Have introduced TPMT screening diagnostic test in Biochemistry Division, NSC.

**Statement of Ward and OPD tests done**

<table>
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<th></th>
<th>Ward Haematology</th>
<th>OPD Haematology</th>
<th>PT</th>
<th>APTT</th>
</tr>
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<tr>
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<td>35,696</td>
<td>67,916</td>
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</table>

**Statement of Catecholamines, VMA, Vitamin D, PTH, HbA1c, NMO**

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<thead>
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<th>Month</th>
<th>Catecholamines</th>
<th>VMA</th>
<th>Vitamin D</th>
<th>PTH</th>
<th>HbA1c</th>
<th>NMO</th>
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<tbody>
<tr>
<td>Total</td>
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<td>4,320</td>
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**Statement of Ward Chemistry tests done in Centralised Lab CNC**

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<th>S. No</th>
<th>Description</th>
<th>No. of Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Glucose</td>
<td>31,433</td>
</tr>
<tr>
<td>2</td>
<td>Urea</td>
<td>57,478</td>
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<tr>
<td>3</td>
<td>Creatinine</td>
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<tr>
<td>4</td>
<td>Calcium</td>
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<td>5</td>
<td>Phosphorous</td>
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<td>6</td>
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<td>7</td>
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<td>8</td>
<td>Potassium</td>
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<td>9</td>
<td>Bilirubin</td>
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<td>Direct Bilirubin</td>
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<td>11</td>
<td>Total Protien</td>
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<td>12</td>
<td>Albumin</td>
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<td>13</td>
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**Statement of OPD Chemistry tests done in Centralised Lab CNC**

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<td>Uric Acid</td>
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<td>Sodium</td>
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<tr>
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<td>Potassium</td>
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<td>Bilirubin</td>
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<td>10</td>
<td>Direct Bilirubin</td>
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<td>11</td>
<td>Total Protien</td>
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</tr>
<tr>
<td>S. No</td>
<td>Description</td>
<td>Total Numbers of Test</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>1</td>
<td>Albumin</td>
<td>45,110</td>
</tr>
<tr>
<td>13</td>
<td>AST</td>
<td>45,110</td>
</tr>
<tr>
<td>14</td>
<td>ALT</td>
<td>45,220</td>
</tr>
<tr>
<td>15</td>
<td>ALP</td>
<td>44,740</td>
</tr>
<tr>
<td>16</td>
<td>Cholestrol</td>
<td>7,115</td>
</tr>
<tr>
<td>17</td>
<td>Amalyse</td>
<td>7,101</td>
</tr>
</tbody>
</table>

**Lipids and Enzymes done in Centralised Lab CNC**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Description</th>
<th>Total Numbers of Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lipid Profile</td>
<td>96,440</td>
</tr>
<tr>
<td>2</td>
<td>CK-NAC</td>
<td>16,552</td>
</tr>
<tr>
<td>3</td>
<td>CK-MB</td>
<td>5,296</td>
</tr>
<tr>
<td>4</td>
<td>LDH</td>
<td>19,480</td>
</tr>
<tr>
<td>5</td>
<td>ASLO</td>
<td>4,815</td>
</tr>
<tr>
<td>7</td>
<td>Digoxin</td>
<td>826</td>
</tr>
</tbody>
</table>

**Hormones, Drugs and other Neurological tests done in Centralised Lab CNC**

**Hormones**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Description</th>
<th>No. Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T3</td>
<td>13,000</td>
</tr>
<tr>
<td>2</td>
<td>T4</td>
<td>13,500</td>
</tr>
<tr>
<td>3</td>
<td>TSH</td>
<td>14,000</td>
</tr>
<tr>
<td>4</td>
<td>Prolactin</td>
<td>1,650</td>
</tr>
<tr>
<td>5</td>
<td>Cortisol</td>
<td>1,700</td>
</tr>
<tr>
<td>6</td>
<td>LH</td>
<td>1,600</td>
</tr>
<tr>
<td>7</td>
<td>FSH</td>
<td>1,600</td>
</tr>
</tbody>
</table>

**Drugs**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Description</th>
<th>No. Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Phenytoin</td>
<td>1,400</td>
</tr>
<tr>
<td>2</td>
<td>Valporate</td>
<td>1,300</td>
</tr>
<tr>
<td>3</td>
<td>Phenobarbitone</td>
<td>200</td>
</tr>
<tr>
<td>4</td>
<td>Carbamazepine</td>
<td>800</td>
</tr>
</tbody>
</table>

**Others**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Description</th>
<th>No. Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vit B12</td>
<td>5,000</td>
</tr>
<tr>
<td>2</td>
<td>Folate</td>
<td>3,000</td>
</tr>
<tr>
<td>3</td>
<td>Homocysteine</td>
<td>1,500</td>
</tr>
<tr>
<td>4</td>
<td>Ferritin</td>
<td>1,300</td>
</tr>
<tr>
<td>5</td>
<td>Ceruloplasmin</td>
<td>400</td>
</tr>
<tr>
<td>6</td>
<td>Serum Copper</td>
<td>450</td>
</tr>
<tr>
<td>7</td>
<td>Urine Copper</td>
<td>250</td>
</tr>
<tr>
<td>8</td>
<td>ACHR</td>
<td>200</td>
</tr>
<tr>
<td>9</td>
<td>OCB</td>
<td>400</td>
</tr>
<tr>
<td>10</td>
<td>Neuronal Ag</td>
<td>12</td>
</tr>
<tr>
<td>11</td>
<td>Ganglioside</td>
<td>03</td>
</tr>
</tbody>
</table>
**Sanger-sequencing based test:**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Description</th>
<th>No. Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TPMT</td>
<td>120</td>
</tr>
<tr>
<td>2</td>
<td>BRCA</td>
<td>15</td>
</tr>
<tr>
<td>3*</td>
<td>SCA, MND-ALS, CAH</td>
<td>160</td>
</tr>
<tr>
<td>4*</td>
<td>MND, Stroke, AML</td>
<td>456</td>
</tr>
</tbody>
</table>

*Professor Achal Srivastava

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Dr Ashok Sharma** Chaired the Session “Young Speaker Programme” as well as examiner for the poster session, Symposium on Accelerating Biology 2019: Towards Thinking Machines, 4-7 February 2019, Pune, Epigenetics and Human Diseases; Elected as a Joint-Secretary in DSI for the period of 2018-2020, DNA Society of India, 24 April 2018, Kolkata; Working as coordinating member for Indian Cancer Research Consortium (ICRC), ICMR, New Delhi; Member of National Consultation for Strengthening Cancer Screening Intervention, Ministry of Health and Family Welfare, Government of India; Expert member of project review committee of “Innovative Translational Research (ITR) Division”, ICMR, India; Expert member of project review committee of “Cell Tower and Mobile Radiation programme”, DST, India; Founding member of “Indian Society of Clinical Oncology”; Editorial and Review Work: Member of the Editorial Board of Cancer science and Cell Biology; Member of the Editorial Board of International Journal of Integrative Sciences, Innovation and Technology (IJIT); Guest Editor for Special Issue on Immunoepigenetics: A Future Sentinel for Tumor Directed Therapies, Journal of Oncology, Hindawi; **Reviewer for:** PLOS ONE, PLOS Genetics, PLOS Biology, BMC Cancer; Carcinogenesis—Oxford Journals; Laboratory Investigation—Nature; Molecular BioSystems—RSC Publishing; Molecular Biotechnology, Molecular and Cellular Biochemistry—Springer.

**Neuropathology**

**Lectures delivered**

**Chitra Sarkar**

1. Recent advances in Medulloblastomas: Challenges to Neuropathologists, ISNOCON, 6-7 April 2018, New Delhi
2. Role of molecular genetics in Neuro-Oncology, Pathfinder, 15-16 September 2018, Chennai
4. Challenges and solutions of molecular classification in the Indian context—Medulloblastoma and other Embryonal Tumors, NPSICON, 14-17 February 2019, Chandigarh
5. Leadership in Healthcare: Does it Demand Uniqueness? Healthcare Leadership Summit, 3 March 2019, Bangalore

**Mehar C Sharma**

1. Other embryonal tumors of the CNS, Neuropathology CME, 28 April 2018, Dhaka, Bangladesh
2. Muscular dystrophies in the pediatric age group, Neuropathology CME, 28 April 2018, Dhaka, Bangladesh
4. Update in embryonal tumors of Central Nervous System, MAPCON, 7-9 September 2018, Pune
5. Embryonal tumors of the CNS, Case presentation, MAPCON, 2018, 7-9 September 2018, Pune
6. Upregulation of programmed Cell Death Ligand-1 (PDL1) expression in RELA fusion positive ependymoma suggests a role for immunotherapy in these aggressive tumors, International Congress of Neuropathology (ICN 2018), 23-27 September 2018, Tokyo, Japan
12. Non-neoplastic lesions of pituitary gland, Annual Conference of the Neuropathology Society of India (NPSICON), 14-17 February 2019, Chandigarh

13. Clinicopathological Conference (CPC Epilepsy), ECON 2019, 9 March 2019, New Delhi

14. Diagnostic approach to CNS tumors according to WHO 2016 classification, 1st Annual AIIMS Patna Pathology Update (APPU 2019), 10 March 2019, Patna

15. Approach to common histiocytic lesions in children, Paediatric Oncology Workshop on Solid Tumors—Module 3, 17 March 2019, New Delhi

Vaishali Suri

1. Utility of FISH in Molecular Neuro-Oncology (workshop), 10th Annual Conference of the Indian Society of Neuro-Oncology, 6-7 April 2018, New Delhi

2. DNA methylation based classification and grading system for meningiomas, 10th Annual Conference of the Indian Society of Neuro-Oncology, 6-7 April 2018, New Delhi

3. WHO 2016 classification of Medulloblastomas, Neuropathology CME, 28-29 April 2018, Bangladesh


5. Recent advances in WHO 2016 classification of Adult and Pediatric Gliomas, Neurocon 2018, 15-16 September 2018, Gurugram


7. Molecular markers in management of gliomas are necessary, 67th Annual Conference of IAPM, 30 November-2 December 2018, Bareilly

8. Newer approaches to classification of meningiomas, 67th Annual Conference of Neurological Society of India NSICON 2018, 13-16 December 2018, Jaipur

9. Was invited to deliver a talk on new insights in functional pituitary adenomas, WFNS Neuroendocrinology Symposium, 27 and 28 January 2019, Mumbai


11. Non meningothelial tumours, 4th Annual Conference of Neuropathology Society of India, 15-17 February 2019, Chandigarh

12. FISH techniques (Workshop), 4th Annual Conference of Neuropathology Society of India, 15-17 February 2019, Chandigarh

Oral papers/posters presented


2. Anju GS, Sharma MC, NF2 hemizygous deletions and merlin loss in spinal ependymomas are not related to mTOR or Hippo pathway activation, NPSICON-2019, 15-17 February 2019, Chandigarh, *3rd place oral paper

3. Battu S, Kumar A, Suri V, Clinocopathological and molecular characteristics of pediatric meningiomas Neuropathology, NPSICON 2019, 15-17 February 2019, Chandigarh


17. Sharma A, Sharma MC, Suri V, PD-L1 and its correlates in ST-RELA fusion positive ependymoma, ISNOCON 2018, 6-8 April 2018, New Delhi, *Best poster award


19. Sriram S, Suri V, Rare case report of Pituitary Adenoma with phaeohyphomycosis, NPSICON 2019, 15-17 February 2019, PGIMER, Chandigarh

20. Thomas C, Suri V, Sharma MC, Granulomas in resected pituitary masses: A clinicopathological analysis of ten consecutive cases identified over a 7-year duration, NPSICON-2019, 15-17 February 2019, Chandigarh

**RESEARCH**

**Funded projects**

**Ongoing**

1. A multi-centric study to develop comprehensive molecular genetic panels for glioblastoma personalized therapy, Chitra Sarkar, DBT, 5 years, 2016-2021, Rs 50 lakhs (approximately)

2. JC Bose Research Fellowship, Chitra Sarkar, DST, 5 years, 2016-2020, Rs 15 lakhs per year

3. Unraveling the role of miRNA clusters (C14MC and C19MC) in oligodendrogliomas: Study using genetic and functional approach with clinicopathological correlations, Chitra Sarkar, ICMR, 3 years, 2017-2020, Rs 10 lakhs per year

4. Targeted genomic-epigenomic analysis to develop a novel approach for routine molecular subgrouping and identification of actionable targets in meningo, Vaishali Suri, DST, 3 years, 2018-2021, Rs 42 lakhs approximately

5. Identification of non-coding RNA panel as novel biomarker for stratification of meningoas and evaluation of its prognostic therapeutic significant, Vaishali Suri, Multi-Institutional Faculty Interdisciplinary Research Project with IIT Delhi, 2 years, 2018-2020, Rs 10 lakhs

6. Molecular signature of protumorigenic inflammation in the context of the WHO 2016 classification of glioma, Vaishali Suri, AIIMS, 3 years, 2018-2020, Rs 20 lakhs

7. Unravelling the functional relevance of Snail paralogs in the pathogenesis of pediatric ependymomas, MC Sharma, DST, 3 years, 2018-2020, Rs 45 lakhs

8. Sequencing target genes aimed at Neuromuscular disorders in India (STAND-INDIA), MC Sharma, ICMR, 3 years, 2018-2021, Rs 50 lakhs

**Completed**

1. Unraveling glioma development and progression through whole exome sequencing, Chitra Sarkar, DBT, 4 years, 2013-17, Rs 99 lakhs (approximately)

2. Establishment of rapid and economical methods for molecular subgrouping and risk stratification of medulloblastomas for routine clinical practice in developing countries, Vaishali Suri, AIIMS, 2 years, 2016-2018, Rs 10 lakhs

**Departmental projects**

**Ongoing**

1. DNA methylation array for molecular subgrouping of medulloblastomas
2. Targeted sequencing of IDH negative gliomas  
3. Clinicopathological study of infant gliomas  
4. EZH2-WNT expression and correlation in tumor invasiveness, stem cell phenotype and progression in pituitary adenomas  
5. Comparison of molecular and immune profile of Epithelioid GBMs and PXA  
6. Analysis of immune check point markers in gliomas  
7. EMT pathway in meningioma  
8. Molecular profiling of Epithelioid Glioblastoma

**Completed**

1. Nanostring technology for molecular subgrouping of medulloblastomas  
2. Molecular profiling of IDH negative gliomas  
3. Study of chromosome 22q alterations and NF2 signaling pathways in ependymomas  
4. Molecular profiling of paediatric oligodendroglialoma

**Collaborative projects**

**Ongoing**

1. Fat gene in gliomas, Biochemistry  
2. Molecular and immune profile of midline gliomas, Neurosurgery

**PUBLICATIONS**

**Journals: 28**

**PATIENT CARE**

**Neuropathology Laboratory**

<table>
<thead>
<tr>
<th>Specimen Type</th>
<th>Number</th>
</tr>
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<tbody>
<tr>
<td>Total Specimen</td>
<td>2,844</td>
</tr>
<tr>
<td>Frozen Section</td>
<td>372</td>
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</tbody>
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**Immunohistochemistry**

<table>
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<tr>
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</thead>
<tbody>
<tr>
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<td>7,323</td>
</tr>
<tr>
<td>Research IHC</td>
<td>2,700</td>
</tr>
<tr>
<td>Muscle IHC</td>
<td>1,870</td>
</tr>
<tr>
<td>Total Muscle Received</td>
<td>367</td>
</tr>
<tr>
<td>Muscle Enzyme-histochemistry</td>
<td>1,170</td>
</tr>
<tr>
<td>Fluorescence in situ hybridization</td>
<td>305</td>
</tr>
<tr>
<td>Diagnostic</td>
<td></td>
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<tr>
<td>Routine</td>
<td>252</td>
</tr>
</tbody>
</table>

**EM Facility**

<table>
<thead>
<tr>
<th>Sample Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total muscle sample</td>
<td>376</td>
</tr>
<tr>
<td>Total nerve sample</td>
<td>44</td>
</tr>
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**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

Professor Chitra Sarkar was appointed as President, AIIMS, Kalyani by Ministry of Health and Family Welfare; Chairperson of the committee constituted by Ministry of Health and FW to suggest recommendations regarding Bhopal Memorial Hospital and Research Centre (BMRHC); Member, Governing Body of Institute of Medical Sciences, Banaras Hindu University; Member, THSTI Society Committee; Nominated Member of DST-INSPIRE Fellowship Standing Committee; Nominated Member of Expert Evaluation Committee of DST-INSPIRE Fellowship; was Organizing Chair of 10th Annual Conference of the Indian Society of Neuro-Oncology (ISNOCON 2018) held at AIIMS, New Delhi from 6 to 8 April 2018; also organized pre-conference workshop on Molecular Neuro-Oncology; Chairperson, Women’s Grievance Cell, AIIMS; Chairperson, Prevention of Sexual Harassment of Women at AIIMS; Coordinator for Memorandum of Understanding between AIIMS and other institutions for collaborative research; Member of Nano Mission Council (NMC) of Department of Science and Technology, Government of India; Member, Apex Committee for North Eastern Region Biotechnology Programmes of Department of Biotechnology; Vice President of the International Society of Neuropathology; Secretary, Neuropathology Society of India; Selection committee member for Ranbaxy Awards; Member of Sectional Committee (Health Sciences) of INSA; Member, Editorial Board of Journal Neuropathology (published from Japan); Member, Assess-
Professor Mihir Chaud Sharma received AIIMS Excellence Award (3rd place) for best published paper ‘C11 orf95-RELA fusions and upregulated NF-KB signaling characterize a subset of aggressive supratentorial ependymomas that express LICAM and nestin in Institute Day, 2018; Best Poster Award at International Congress of Neuropathology (ICN-2018) held at Tokyo, Japan; AIIMS Oncology Award, 2nd place Basic Research for best published paper ‘Transcriptional co-expression regulatory network analysis for Snail and Slug identified ILIR1, an inflammatory cytokine receptor to be preferentially expressed in ST-EPN-RELA and PF-EPN—A molecular subgroups of intracranial ependymomas in 1st Annual AIIMS Research Day, 26 March 2019.’

Professor Vaishali Suri (As Main Author) got ISNO Annual Award for Outstanding work in Neurooncology at the at 10th Annual Conference of the Indian Society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.

Residents Awards
Madhu Rajeshwari S got the first best poster award for the poster entitled “Primary histiocytic sarcoma of brain—A rare occurrence” Madhu Rajeshwari, MC Sharma, V Suri, Chitrak Sarkar, at 10th Annual Conference of the Indian Society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.

Priyadarsani S got the third best poster award for the poster entitled ‘Diffuse leptomeningeal glioneuronal tumor’ at the 10th Annual Conference of Indian Society of Neuro-oncology held at All India Institute of Medical Sciences, New Delhi, 6-8 April 2018.

Agrima S got the third best poster award for the poster entitled, “Over-expression of Programmed Cell Death Ligand (PD-L1) suggests negative outcome in RELA fusion ependymomas.” Agrima Sharma; Prit Benny Malgulwar; Mamohain Singh; Vaishali Suri; Chitrak Sarkar; Mehru Chand Sharma at 10th Annual Conference of Indian Society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.


11.1. B.B. Dikshit Library

Professor In-Charge, Library Committee
S Rajeshwari

Chief Librarian
S Siva Chidambaram

HIGHLIGHTS

Dr B.B. Dikshit Library is the central library providing information service to all the teaching departments and centre for excellence. The library is open 24x7 (356 days) and it has more than 1,50,000 books and other documents such as bound journals, pamphlets, etc. The library also has a collection of 2,296 Hindi books for readers, employees both technical and non-technical. An average of 320 readers visit the library everyday. The library is well equipped with modern facilities to support biomedical education and research. The library has predominantly e-resources (70%) which are provided with anytime anywhere access for doctors and faculty members for their scholarly activities. The collection of various E-Resources access and service credential available through the library is given below:

<table>
<thead>
<tr>
<th>Types of E-Resource</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Journals</td>
<td>1493 Scholarly Journals, Dentistry and Oral Sciences Source (DOSS Aggregator), NEJM Journal Watch</td>
</tr>
<tr>
<td>E-Books</td>
<td>Access Medicine, Oxford Medicine Online (53 textbooks), OVID</td>
</tr>
<tr>
<td>Point of Care databases</td>
<td>UpToDate (Anytime anywhere), BMJ Best Practice, BMJ Case Reports, Acland Anatomy, MedOne Surgery</td>
</tr>
<tr>
<td>E-Learning packages</td>
<td>JAMA Evidence, BMJ Research to Publications, HSTalk Lecture Series</td>
</tr>
<tr>
<td>Abstracting and Indexing databases</td>
<td>EMBASE, Web of Science (Citation Analysis Database), Journal Citation Report</td>
</tr>
<tr>
<td>Access Facility Software on Services</td>
<td>LibSys Premia (Ver.10) Library automation</td>
</tr>
<tr>
<td></td>
<td>EBSCO Discovery service (Single Point Search for all subscribed E-Resources)</td>
</tr>
<tr>
<td></td>
<td>All E-Resources are accessed through IP enable in the Campus</td>
</tr>
<tr>
<td></td>
<td>RemoteXs, OpenAthens facility for out-of-campus access</td>
</tr>
<tr>
<td>Plagiarism verification service</td>
<td>iThenticate web enabled</td>
</tr>
</tbody>
</table>

These online databases, E-Journals and E-Learning Packages can be accessed through the library by Web-scale Discovery Service (Single Point Search), IP enabled access and RemoteXs facility. Few society-based journals may be accessed through username and password. Necessary access information is disseminated through the library webpage: http://www.aiims.edu/en/library.html. The RemoteXs facility to faculty members and academic resident doctors is provided through: http://elibraryaiimsdelhi.remotexs.in to access E-resources even outside the campus and the country. The library has its own search engine called ‘Single Point Search’ web-scale discovery service to retrieve library subscribed electronic resources plus library holdings effectively. It also acts as a tool for a bibliographic management system for doctors. The Library Committee is an advisory body for the management of the library. It advises the Chief Librarian regarding the procurement of books and subscription of periodicals and databases. The present committee consists of the Professor In-charge as Chairperson, 7 Professors, 2 Associate Professors and 1 Assistant Professor from various divisions as members, and the Chief Librarian as the Coordinator. The committee meets regularly.

The Library has an in-house information communication and management system comprising of 3 servers and 49 computers. The library use Libsys Premia automation software system that supports data entry and retrieval of books and other documents. All documentation/bibliographic services, as well as certain library operations have been computerized, using integrated library management software. The circulation section of the library is computerized through RFID smart card system and online issue return of books with automatic reminder systems through email. The library provides Current Awareness Service and Reference Services. The library publishes E-Resources Bulletin, AIIMS Institutional Repository Bulletin and the New Books Bulletin, etc. It also provides services such as web-based Open Access Public Catalogue (Web OPAC), Reprography and printout of academic literatures. Library imparts orientation and information literacy programs to students, research scholars and doctors regularly.

This year library spent around Rs 1,800 lakhs for procurement of E-Journals, Databases, Books and other documents, IT equipment and services etc. It added around 354 new books, 1493 E-Journals, 13 Databases and 4 Access Facility services etc. The library has been working towards to establish Electronic Thesis and Digital Library by the scanning and digitization of Thesis and Dissertation available in printed as well CD formats through M/s ProQuest and it is almost near to complete.
CME/Workshop/Seminar/Conferences Organized

1. National seminar on ‘Access and availability of Medical Literature in Electronic Environment (AMLEE-2018)’
   16-17 April 2018, AIIMS, New Delhi
2. Library orientation program for Dietitians, 15 May 2018, Dr B.B. Dikshit Library, AIIMS, New Delhi
3. LibSys (Ver.10) Library automation software training program for library staff members, 5-8 June 2018, Dr B.B.
   Dikshit Library, AIIMS, New Delhi
4. Author workshop on how to publish the article by Wiley, 19 June 2018, Dr B.B. Dikshit Library, AIIMS, New Delhi
5. Seminar on Librarians’ Day ‘Utilization of E-Resources in Doctors Scholarly Communication’, 13 August 2018,
   Dr B.B. Dikshit Library, AIIMS, New Delhi
6. Workshop on ‘Selecting a journal and preparing a great submission package’, 18 September 2018, Dr B.B. Dikshit
   Library, AIIMS, New Delhi
7. Author Workshop on Responding to Reviewer Comments, 21 December 2018, Dr B.B. Dikshit Library, AIIMS,
   New Delhi
   AIIMS, New Delhi
9. Special lecture on ‘Digital Library and Health Consumers’ by Dr Nalini Mahajan, Library Director and Webmaster,
   Marianjoy Rehabilitation Hospital, Wheaton, USA, 9 February 2019, Dr B.B. Dikshit Library, AIIMS, New Delhi

Lectures delivered

Dr S. Siva Chidambaram

1. Finding current best evidence from health science information resources: Tools and techniques for library and
   librarians, National Seminar on ‘Health Information Resources and Searching Techniques’, 27 July 2018, Indian
   Pharmacopoeia Commission, Ghaziabad
2. Emerging and Innovative Technology Applications in Special Libraries Experience in National Important Institutes
   AIIMS and NIPFP, International Conference organized by Asian Library Association at Central University of
   Kashmir, Srinagar, 6-8 August 2018
3. E-Resources within Libraries: Access and Availability, For Medical Librarians across Bengaluru and surrounding
   areas by BMJ, 1 September 2018, Bengaluru
4. Emerging trends in healthcare management libraries in E-Learning Environment, Emerging Trends in Librarianship:
   Role of Libraries in Open Learning Environment, International Conference (MANLIBNET-2018), 10-12 December
   2018, Indian Institute of Management Tiruchirappalli
   New Delhi
6. Modern Information Services in Health Care Libraries, IT Application for Information Management in Health
   Science Libraries, NIHFW Training Course, 24 October 2018, NIHFW, New Delhi
7. Knowledge Organisation through Web Scale Discovery Service, International Conference on Knowledge
   Organization in Academic Libraries (I-KOAL), 26-27 November 2018, University of Hyderabad, Hyderabad

PUBLICATIONS

Journal: 1    Chapters in books: 12    Book and monograph: 1

Conference/Seminars Attended

Dr S. Siva Chidambaram

   Gandhi Medical College and Hospital, Jaipur
2. Resource Person, International Conference organized by Asian Library Association, 6-8 August 2018, Central
   University of Kashmir, Srinagar
   New Delhi
   2018, New Delhi
   7 January 2019, DELNET, JNU Campus, New Delhi
6. Resource Person, Sixth International Conference of Asian Special Libraries (ICoASL 2019) 14-16 February 2019, IEG and Ambedkar University, Delhi

Mr M.K. Vishwakarma

Mr Jahangir Khan
1. National Convention on Knowledge, Library and Information Networking, NACLIN 2018 on Managing Strategies and Technologies for Advancing Scope and Services of Libraries organized by DELNET, New Delhi, 4-6 October 2018, GTAM, Visakhapatnam

Mr Prashant Shrivastava
1. International Conference ‘Exploring the Horizons of Library and Information Sciences: From Libraries to Knowledge Hubs’, 7-9 August 2018, Indian Statistical Institute, Bengaluru Centre
2. Sixth International Conference of Asian Special Libraries (ICoASL 2019), 14-15 February 2019, organized by Asian Chapter, Special Libraries Association (SLA, USA) in collaboration with IFLA-Asia and Oceania, Institute of Economic Growth, Ambedkar University Delhi and Society for Library Professionals and in association with Korea Special Libraries Association and APPTIS (Asosiasi Perpustakaan Perguruan Tinggi Islam Indonesia) at Institute of Economic Growth (14 February 2019), Delhi and Ambedkar University Delhi (15 February 2019)
4. 2nd International Seminar on scholarly writing and publication, 27 August 2018, National Law University, Delhi
5. International Conference on Digital Transformation: Preservation, policy and privacy, 29 November-1 December 2018, National Law University, Delhi

Mr Umesh Kumar
2. ‘International Short-Term Course on Open Source Software for Library Management (OSSLM–2018), 7-12 May 2018, Organized by Central Library and National Digital Library of India (NDLI), IIT Kharagpur
5. ‘Second International Seminar on Scholarly Writing and Publication Theme: How to Publish with International Law and Social Science Publisher’ organized by (NLU) National Law University, Delhi, National Law University, Bhopal, Rajiv Gandhi National Law University, Punjab and Brill, 27 August 2018, NLU, Delhi
7. International Conference on Digital Transformation: Preservation, Policy and Privacy Organized by NLU, Delhi in association with NLIU, Bhopal, RGNUL, Patiala and TERI, Delhi, 29 November-1 December 2018, National Law University, Delhi

Mr Deepak Shukla
1. International short-term training course on Open Source Software for Library Management (OSSLM 2018), 7-12 May 2018, Indian Institute of Technology, Kharagpur
Ms Neetu Priya

1. 6th International Conference of Asian Special Libraries (ICoASL 2019), 14-16 February 2019, Institute of Economic Growth and Ambedkar University, New Delhi

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr S. Siva Chidambaram received Guest of Honour: (i) National Seminar on ‘Preparing the Librarians for Knowledge Society: Challenges and Opportunities’, organized by RMLA and Mahatma Gandhi Medical College and Hospital, 3 July 2018, Jaipur; (ii) International Conference on Social Responsibility of Educational Institute in Developing Countries (ICSEDC 2018), Sri Ramakrishna Mission Vidyalaya College of Arts and Science, 24-25 August 2018, Coimbatore.


### 11.2. Cafeteria

<table>
<thead>
<tr>
<th>Chairperson</th>
<th>Subhasish Panda</th>
</tr>
</thead>
<tbody>
<tr>
<td>M Bajpai</td>
<td>Deputy Director (Administration)</td>
</tr>
<tr>
<td>Professor, Department of Paediatric Surgery</td>
<td>(from 15 February 2019)</td>
</tr>
<tr>
<td>(up to 14 February 2019)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Member Secretary</th>
<th>Rakesh Kumar Sharma</th>
</tr>
</thead>
<tbody>
<tr>
<td>V Darlong</td>
<td>Senior Stores Officer</td>
</tr>
<tr>
<td>Professor, Department of Anaesthesiology</td>
<td>(from 15 February 2019)</td>
</tr>
<tr>
<td>(up to 14 February 2019)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accounts Officer</th>
<th>Meenakshi Dabral</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Manager</td>
<td>SK Kaushik</td>
</tr>
<tr>
<td>KK Sharma</td>
<td></td>
</tr>
</tbody>
</table>

The cafeteria was established in 1972 and is being run at no-profit-no-loss basis to provide wholesome food to employees at AIIMS without any financial assistance from the Institute for Equipment, Furniture, Utensils and other basic requirement of Café.

**MANAGEMENT COMMITTEE**

A Management Committee is constituted by the Director of AIIMS for policy decisions that pertain to the Cafeteria Department from time to time. The following are the members:

- Shri Subhasish Panda, Chairperson
- Dr Siddharth Satpathy, Member
- Dr Minu Bajpai, Member
- Dr Arti Kapil, Member
- Dr Binod Kumar Khaitan, Member
- Dr Rajesh Khadgawat, Member
- Dr Nirupma Madaan, Member
- Representative of FAIIMS, Member
Representative of RDA: Member
Representative of Officer Association: Member
Representative of Nurses Union: Member
Representative of Karamchari Union: Member
Shri S.K. Kaushik: Member
Shri Rakesh Kumar Sharma: Member Secretary

SERVICE FACILITIES

The cafeteria runs 10 units for services to more than 14,000 employees of AIIMS.

1. Main multi-storey cafeteria (24 hours services) situated near Jawahar Lal Nehru Auditorium
2. Main operation theatre cafeteria situated at 9th floor of the main hospital
3. CNC cafeteria, situated at 2nd floor of the centre
4. Dr R.P. Centre OT cafeteria situated at 5th floor of the centre/ground floor
5. Centre for dental education and research
6. Dr B.R. Ambedkar Institute Rotary Cancer Hospital
7. Faculty room cafeteria situated near main cafeteria
8. AIIMS Outreach OPD, Village Badsa, Jhajjar, Haryana
9. Tea/Coffee outlet near computer facility and daily service at Orthopaedics OT
10. AIIMS OPD canteen established under the management of AIIMS cafeteria to cater the need of patients and their relatives round the clock

In addition cafeteria provides hospitality services to all higher officers and faculty members on day-to-day requirement, as well as special requirements for important official meetings, Workshop, Symposia, etc.

STAFF STRENGTH

110 employees are appointed in the cafeteria on regular as well as contractual basis.

FUTURE PLAN

Considering massive expansion in the requirement for catering services at the institute as a result of tremendous increase in AIIMS staff strength and in view of upcoming blocks in AIIMS campus, the need of highly skilled professional catering/cafeteria services in campus for faculty, resident doctors, nursing staff, other staff and visitors has been felt. The outsourcing of cafeteria services at the institute has been finalized. The entire catering services at the institute have been divided in two zones. Two firms have been selected zone wise for this purpose and work award letters are likely to be issued in the first week of April 2019 and both firms will be entrusted with responsibilities to start their services within 45 days of the issue of the letters in their respective zone.

### 11.3. Central Animal Facility

**Professor-in-Charge**
SK Maulik

**Sr Veterinary Officer**
PK Yadav

During the year, only rats, mice, rabbits, guinea pigs and hamsters were maintained in the facility.

**Small Animal (Rodents)**

The number of animals maintained during the year in the facility is given below:

1. Rats (Wistar) 1,341
2. Rats (Sprague Dawley) 409
3. Mice (Swiss) 673
4. Mice Balb/c 239
5. Mice C57 BL/6 254
A total of 4,207 small animals (Rats 3,109, Mice Swiss 837, Mice Balb/c 176, Rabbits 76 and Guinea pigs 9) were supplied to various departments at AIIMS. A number of animals was also sold to sister institutions in Delhi and outside Delhi (Rats 1,130, Mice 386, Rabbits 3 and Guinea pigs 20; Total 1,539).

**Experimental Surgery**

Thirty-one surgical procedures were performed by faculty, investigators and students from various departments in the facility. The departments included Surgery, Biomedical Engineering, Neurosurgery, Paediatric Surgery, Laboratory Medicine, Biotechnology, Stem Cell Facility and Pathology.

**Institutional Animal Ethics Committee**

The Institutional Animal Ethics Committee (IAEC) is approved by the Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA) under the Ministry of Environment, Forests and Climate Change, Government of India. The AIIMS CPCSEA registration No. is 10/GO/ReBiBt/S/99/CPCSEA. The IAEC cleared 90 projects on small animals (Rodents) of various investigators at AIIMS during the year 2018-19.

**Services Provided**

The facility has been maintaining animals belonging to departments of Biomedical Engineering, Biotechnology, Anatomy, Pathology, Laboratory Medicine, Stem Cell Facility, Neurosurgery, Paediatric surgery, Biophysics, Geriatric medicine, Surgical disciplines, Reproductive biology and Psychiatry. The facility housed 222 rats, 160 mice, 3 rabbits and 2 guinea pigs belonging to the above departments throughout the year.

Laboratory facilities such as vacuum drying of sera, storage of serum samples, haematology, clinical biochemistry, microscopic investigations and X-rays were provided to the investigators.

The facilities for research with immune-deficient animals (Nude and SCID mice) are in the final stage and will be functional soon.

**Educational Programmes Attended**

1. One day National Workshop on GLP Sensitization, 24 September 2018 at Translational Health Science and Technology Institute (THSTI), Department of Biotechnology, Ministry of Science and Technology, Faridabad, Haryana, Organized by National Good Laboratory Practice Compliance Authority (NGCMA), DST in collaboration with Quality Council of India (QCI) and Clinical Development Services Agency (CDSA)
2. 8th Asian Federation of Laboratory Animal Science (AFLAS) Congress 2018, 28 November-1 December 2018, Bengaluru, India.

### 11.4. Central Workshop

<table>
<thead>
<tr>
<th>Faculty Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Ganga Prasad</td>
</tr>
<tr>
<td>(Professor, Department of Anaesthesiology, Pain Medicine and Critical Care)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chief Technical Officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalu Ram</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Senior Technical Officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harinder Pal</td>
</tr>
<tr>
<td>(Mechanical Section)</td>
</tr>
<tr>
<td>Nitin Srivastava</td>
</tr>
<tr>
<td>(Electrical and Electronics)</td>
</tr>
</tbody>
</table>

**OBJECTIVES**

The Central Workshop was established in 1964. It plays an important role in providing smooth and complete patient care. It carries out repair and maintenance of various equipments from different departments. It also fabricates items to be used
for medical education, scientific research and patient care at AIIMS. Being the only technical department it also provides technical guidance to various purchase committees of AIIMS.

LOCATION AND TIMING
The Central Workshop is located on the basement, ground floor and first floor in the building adjacent to the laundry and near the mortuary. It also has an extended centre at 7th floor of the hospital main building. This extended centre (mini workshop) does repairs on urgent basis and has the advantage of being close to patient care activities, thus saving time and effort of the person taking items for repair. The department is staffed Monday to Friday from 9.30 a.m. to 5.15 p.m. and Saturday from 9.30 a.m. to 1.15 p.m.

STRENGTH OF EMPLOYEES
A skilled team of technicians and officers is available in the department to provide the above stated operations. The team provides efficient maintenance of various equipments in the hospital. The various sections of the Central Workshop headed by a Senior Technical Officer/Technical Officer with supporting staff members. The group B and C staff strength is given below:

- Technical Officer: 4
- Technician (Grade I): 5
- Technician (Grade II): 8
- Workshop Assistant: 3
- Office Superintendent: 1
- Senior administrative assistant (Store Clerk): 1
- Khalasi: 6

SERVICES AVAILABLE
The Central Workshop provides the following services to the entire AIIMS, its centres and CRHSP Ballabhgarh.

1. Repair and Maintenance
There are different sections in the Central Workshop involved in repair and maintenance of various equipments. A total of 7,677 (seven thousand six hundred and seventy-seven) jobs have been completed during the year. The section-wise descriptions of repaired items are:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Section</th>
<th>Number of Jobs</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Electronics</td>
<td>526</td>
<td>Patient monitors, infusion pumps, regulated power supplies, electronic weighing machines, paper shredding machines, light sources, ECG machines, sealing machines, ultrasonic nebulizer, DVT pumps, blue LED light, stabilizers, induction heater, nebulizers, public address systems, operation table electronic, microscopes, microwave ovens, colour televisions, humidifier, foetal doppler, air mattress pump, etc.</td>
</tr>
<tr>
<td>2</td>
<td>Electrical</td>
<td>940</td>
<td>Autoclaves, bone cutters, bull eye lamp, boiler, centrifuges, suction machines, floor cleaning machine, fly killer machines, fumigator, gauge/plaster cutters, grinders, hot case, hot air ovens, hot display counter, hot plates, incubators, laminar flow, Mayo stand, mixer grinder, magnetic stirrer, needle destroyers, OT lights, spot light, steam bath, sterilizers, UV lights, vacuum cleaners, X-ray viewbox, vortex shaker, water bath, wax bath, etc.</td>
</tr>
<tr>
<td>3</td>
<td>Mechanical and carpentry and upholstery</td>
<td>3,437</td>
<td>Surgical instruments, tracheostomy tube, spray pumps, vapour jet cleaning machines, scissors (gauge cutting), bed side lockers, i.v. stands, patient trolleys, patient beds, wheel chairs, loading trolleys, food trolleys, side screens, instrument trolleys, basin stand, foot step, surgical drums, push cart, patient examination tables, hydraulic trolleys, test tube stands, all types of stools, etc. Splints, sofas, settees, chairs, wooden stools, trolley mattress, patient couch mattress, etc. and their upholstery work.</td>
</tr>
<tr>
<td>4</td>
<td>Fine instrument</td>
<td>2,116</td>
<td>Digital blood pressure instrument, micro balances, dial blood pressure instrument, stethoscopes, weighing machines, compressors, flowmeters, oxygen regulators, hydraulic tables, laryngoscopes, etc.</td>
</tr>
<tr>
<td>5</td>
<td>Refrigeration</td>
<td>225</td>
<td>Visi coolers, deep freezers, chilling unit, ice cream cabinet, refrigerators, cold display counters, minicold, refrigerated BOD incubator, etc.</td>
</tr>
</tbody>
</table>
6 Painting 433 All office and hospital furniture items like beds, i.v. stands, all types of trolleys, wheel chairs, benches, footsteps, patient side lockers, pigeon lockers, patient examination tables, push carts, almirahs, racks, etc.

Total 7,677

2. Fabrication and Guidance
In spite of gradually increasing load of repair and maintenance activities, Central Workshop has been able to help in research activities of the institute with design and fabrication of useful gadgets as per specifications provided by various departments and also give suggestions for further improvement. A total of 725 (seven hundred and twenty-five) items were fabricated by the Central Workshop during the year. These were:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Item Description</th>
<th>Quantity</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Handle for surgical equipment</td>
<td>54</td>
<td>Orthopaedics OT, JPNATC OT</td>
</tr>
<tr>
<td>2</td>
<td>Temperature chart holder</td>
<td>123</td>
<td>Main hospital</td>
</tr>
<tr>
<td>3</td>
<td>Bakelite boards</td>
<td>30</td>
<td>Cardiac Catheterisation Laboratory, CN Centre</td>
</tr>
<tr>
<td>4</td>
<td>Tray for token machine</td>
<td>13</td>
<td>Computer facility</td>
</tr>
<tr>
<td>5</td>
<td>Wooden splint</td>
<td>400</td>
<td>JPNATC, Emergency</td>
</tr>
<tr>
<td>6</td>
<td>Humidity chamber</td>
<td>1</td>
<td>Pharmacology</td>
</tr>
<tr>
<td>7</td>
<td>Holder for bar code scanner</td>
<td>10</td>
<td>Computer facility</td>
</tr>
<tr>
<td>8</td>
<td>Testicle ball</td>
<td>5</td>
<td>Paediatric Surgery</td>
</tr>
<tr>
<td>9</td>
<td>PCNL roll</td>
<td>3</td>
<td>Orthopaedics OT</td>
</tr>
<tr>
<td>10</td>
<td>Camera stand</td>
<td>4</td>
<td>CMET</td>
</tr>
<tr>
<td>11</td>
<td>Stylet</td>
<td>55</td>
<td>Emergency, AB2 ward</td>
</tr>
<tr>
<td>12</td>
<td>Wooden block</td>
<td>4</td>
<td>Orthopaedics OT</td>
</tr>
<tr>
<td>13</td>
<td>OT table mattress</td>
<td>5</td>
<td>Main OT</td>
</tr>
<tr>
<td>14</td>
<td>Perspex plate</td>
<td>4</td>
<td>Neurosurgery</td>
</tr>
<tr>
<td>15</td>
<td>Side support mattress</td>
<td>4</td>
<td>Orthopaedics OT</td>
</tr>
<tr>
<td>16</td>
<td>L piece for neck support during anaesthesia</td>
<td>2</td>
<td>Anaesthesia store</td>
</tr>
<tr>
<td>17</td>
<td>Laparoscopic surgery training module</td>
<td>6</td>
<td>Surgery</td>
</tr>
<tr>
<td>18</td>
<td>DC power supply</td>
<td>1</td>
<td>IRCH Laboratory oncology</td>
</tr>
<tr>
<td>19</td>
<td>Sweat Test Machine</td>
<td>1</td>
<td>Paediatrics</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>725</td>
<td></td>
</tr>
</tbody>
</table>

3. Short-term Training
The department is actively involved in providing guidance and imparting short-term training (4-6 weeks) to the diploma/undergraduate students of various engineering colleges.

ACHIEVEMENTS

1. The workshop received appreciation letter from Professor Anita Saxena, Cardiac Catheterisation Laboratory, CN Centre for fabrication of Bakelite Boards designed to prevent patient movement during angiography.

2. The workshop participated in the exhibition held on the occasion of AIIMS Institute Day celebration. According to the theme of the exhibition, the contribution of workshop in Next Generation Health Care was displayed. Some of the items fabricated by the workshop were also demonstrated in this event which were seen and appreciated by most visitors. The workshop was awarded a Commendation Prize (Exhibits) by the selection committee.
11.5. Computer Facility

**Professor-in-charge**
A Shariff

**Deputy Director (Computer Facility)**
SN Ragu Kumar

**Systems Analysts**
- Sushil Kumar Meher
- Sanjay Gupta

**Senior Programmers**
- Vinay Pande
- Hari Shankar
- Shyamal Barua
- Pawan Sharma
- Sushma Dhama (up to December 2018)
- Tripta Sharma

**Programmers**
- Amit Bhati
- Sanjeev Kumar
- Ankita Saini
- Geetika Gupta
- Harish Saini
- Priyanka Singh

**Nursing Informatics Specialist**
Preethi S and Team

**EDUCATION**

**Postgraduate**
Computer programming classes, covering both theory and practical aspects, were conducted for postgraduate students of the Department of Biotechnology and College of Nursing.

**Undergraduate**
A three-month course on basics of computers, internet, windows applications, computer-aided learning, database, etc. was conducted for first year students of BSc (Hons) Nursing and BSc Nursing (Post-certificate). Computer Orientation Program for MBBS students was also organized.

**Continuing Medical Education**
Officials of the facility participated and delivered lectures in continuing medical education programs, symposia, international and national conferences.

**Services**
**SNOMED CT: 49728** SNOMED CT compliant entries have been recorded in HIS (eHospital) during the time period of April 2018-March 2019.

**Hospital Computerization**
**Hospital Information System (HIS)** is implemented using eHopsital@NIC software for management of Appointment and OPD Registration, Admission, Discharge, and Transfers, MRD, Patient Billing, Stores, Laboratory Information System, Dietary, and Blood Bank. The details for 2018-19 are:

<table>
<thead>
<tr>
<th>Service</th>
<th>2018-19 Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>New OPD registration</td>
<td>11,07,701</td>
</tr>
<tr>
<td>Casualty registration</td>
<td>98,655</td>
</tr>
<tr>
<td>Total admission</td>
<td>2,34,839</td>
</tr>
<tr>
<td>Total patient billing</td>
<td>9,35,111</td>
</tr>
<tr>
<td>Total transfer</td>
<td>1,04,833</td>
</tr>
<tr>
<td>Store indent count</td>
<td>75,313</td>
</tr>
<tr>
<td>Follow up OPD registration</td>
<td>17,10,068</td>
</tr>
<tr>
<td>Laboratory test order entry</td>
<td>1,53,080</td>
</tr>
<tr>
<td>Total discharges</td>
<td>2,34,979</td>
</tr>
<tr>
<td>Blood bank</td>
<td>33,967</td>
</tr>
<tr>
<td>Indents issued by stores</td>
<td>73,135</td>
</tr>
<tr>
<td>Store indent count</td>
<td>75,313</td>
</tr>
</tbody>
</table>

**OPD appointments**

<table>
<thead>
<tr>
<th>Method of appointment</th>
<th>New appointment</th>
<th>Follow-up appointment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call centre</td>
<td>11,992</td>
<td>17,272</td>
</tr>
<tr>
<td></td>
<td>Counter</td>
<td>AVC</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Interactive voice response system</td>
<td>4,127</td>
<td>29</td>
</tr>
<tr>
<td>Mobile apps</td>
<td>37,153</td>
<td>1,22,385</td>
</tr>
<tr>
<td>AIIMS web portal</td>
<td>8,649</td>
<td>46,193</td>
</tr>
<tr>
<td>ORS</td>
<td>2,52,451</td>
<td>1,50,293</td>
</tr>
<tr>
<td>Kiosk</td>
<td>8,495</td>
<td>34,672</td>
</tr>
</tbody>
</table>

In terms of breakup section wise it is as follows.

<table>
<thead>
<tr>
<th>Sections</th>
<th>Total appointments</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPD and clinic</td>
<td>36,48,074</td>
</tr>
<tr>
<td>Radiology</td>
<td>2,33,441</td>
</tr>
<tr>
<td>Laboratory</td>
<td>1,85,951</td>
</tr>
</tbody>
</table>

**LIS Implantations**

Integration of Laboratory equipment and eHospital are done through HL7 standard. Analyzer reads the Sample Identification Number (SID No.) from the barcode, which is pasted to the test tube. Then it requests the LIS for the tests which are to be performed. The LIS responds with the test to be done for the specific SID No. to the analyzer. Analyzer conducts the specified tests, when the tests have been completed, only the relevant and required result values are transferred to Laboratory Information System (LIS). The selection of data to be transferred to LIS will be specific to Bi-directional/Uni-directional Analyzers. The total Laboratory Instruments have been connected.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Laboratory</th>
<th>Equipment</th>
<th>Number</th>
<th>Machine Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CNC</td>
<td>Beckman 5Plot cell Counter</td>
<td>1</td>
<td>Uni-directional</td>
</tr>
<tr>
<td>2</td>
<td>CNC</td>
<td>IRIS iCount3</td>
<td>1</td>
<td>Uni-directional</td>
</tr>
<tr>
<td>3</td>
<td>CNC</td>
<td>Immulite1000</td>
<td>1</td>
<td>Uni-directional</td>
</tr>
<tr>
<td>4</td>
<td>CNC</td>
<td>Bio-Rad10</td>
<td>1</td>
<td>Uni-directional</td>
</tr>
<tr>
<td>5</td>
<td>CNC</td>
<td>Alifex R20 ESR Machine</td>
<td>1</td>
<td>Uni-directional</td>
</tr>
<tr>
<td>6</td>
<td>CNC</td>
<td>Beckman 3Plot cell Counter</td>
<td>1</td>
<td>Uni-directional</td>
</tr>
<tr>
<td>7</td>
<td>RPC Haematology (7th Floor)</td>
<td>Beckman Coulter 5 Plot Act Diff Cell Counter</td>
<td>1</td>
<td>Uni-directional</td>
</tr>
<tr>
<td>8</td>
<td>RPC Haematology (7th Floor)</td>
<td>Sysmex KX21</td>
<td>1</td>
<td>Uni-directional</td>
</tr>
<tr>
<td>9</td>
<td>RPC Haematology (6th Floor)</td>
<td>Beckman AU680</td>
<td>1</td>
<td>Bi-directional</td>
</tr>
<tr>
<td>10</td>
<td>Endocrinology-1</td>
<td>Bio-rad D10</td>
<td>1</td>
<td>Uni-directional</td>
</tr>
<tr>
<td>11</td>
<td>CCF Ground Floor</td>
<td>Cobas 6000</td>
<td>1</td>
<td>Bi-directional</td>
</tr>
<tr>
<td>12</td>
<td>CCF Ground Floor</td>
<td>Urin Analyzer</td>
<td>1</td>
<td>Uni-directional</td>
</tr>
<tr>
<td>13</td>
<td>Renal</td>
<td>Cobas C311</td>
<td>1</td>
<td>Bi-directional</td>
</tr>
<tr>
<td>14</td>
<td>Renal</td>
<td>Abott Architect1000</td>
<td>1</td>
<td>Bi-directional</td>
</tr>
<tr>
<td>15</td>
<td>Renal</td>
<td>IONS</td>
<td>2</td>
<td>Uni-directional</td>
</tr>
<tr>
<td>16</td>
<td>Emergency Department</td>
<td>AQT 90</td>
<td>1</td>
<td>Uni-directional</td>
</tr>
<tr>
<td>17</td>
<td>Emergency Department</td>
<td>ABL 800</td>
<td>1</td>
<td>Uni-directional</td>
</tr>
<tr>
<td>18</td>
<td>Emergency Department</td>
<td>Pentra XL</td>
<td>1</td>
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**Uni-directional** 27  
**Bi-directional** 32  
**Total number** 59

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**EHS Pharmacy software.** During the last year, 32,775 registrations have been done and 29,971 prescriptions were generated through this software.

1. EHS Pharmacy total registrations **2,28,559**
2. EHS Pharmacy total online prescriptions **1,46,661**

**Management of existing in-house modules**

Summary of total cases registered under various existing in-house modules during the financial year 2018-2019 is as under.

1. **Patient Display System (PDS):** 99,124 patients’ details have been registered for Emergency, New Emergency and Paediatrics.
2. **Use of SNOMED CT:** The integration of SNOMED CT in this module in fields like Diagnosis, Symptoms, and Systems etc. Total number of transactions recorded is 19,568.
3. **Quality Assurance Module (QAM):** 2,232 entries have been recorded for scheduling conferences, lectures, faculty meetings and also for doctor’s grading purpose.
4. **QAM/HA:** 123 entries have been made for grading purpose by HA.
5. **RPC PDS:** 28,475 patients’ details have been registered for RPC.
6. **OT Scheduling:** 66,975 OT scheduling has been done for different departments.
7. **Equipment Checklist RPC:** 2,976 checklists have been created for equipments in RPC.
8. **E Birth Certificate:** 2,421 birth certificates have been generated through this module.
9. **E blood request:** 95,522 blood requests have been made for arranging blood for patients.

**Use of SNOMED CT**

We have integrated SNOMED CT in this module in fields like Diagnosis etc. The total number of transactions recorded is 7,894.

10. **E Cath list:** 4,777 scheduling has been done for Cath Laboratory
11. **E MLC:** 13,268 medical records have been maintained for MLC cases.
Use of SNOMED CT: It is an online module for Doctors to prepare eMLC. SNOMED CT is integrated in this module in fields like Alleged H/O, Diagnosis. Total number of transactions recorded is 9,553.

12. E MLC RPC: 124 medical records have been maintained for MLC cases at RPC.
13. Penicillin Register: 2,120 registrations have been done for scheduling and alerting regarding penicillin intakes.
14. Gamma Knife Register: 149 registrations have been done for Gamma Knife procedure.
15. Election eballot: 506 votes were casted for election purpose through this module.
16. Online admission slip: A total of 23,913 admission slips comprising patients of both OPD and Emergency have been provided in a real platform based upon the availability of beds under different department heads. SNOMED CT is integrated in this module in fields like Diagnosis etc. and the total number of transactions recorded is 4,987.
17. QR code in medical and fitness certificate: 10,180 certificates have been generated for AIIMS and other centres employees.
18. E-grievance module: 98 complaints have been made through this.
19. E-Death Note: 5,943 death certificates have been generated through this application. SNOMED CT is integrated in this module in fields like Immediate cause: (a), Antecedent cause: (b), Antecedent cause: (c), Diagnosis etc. Total number of SNOMED CT transactions recorded is 18,965.
20. ECG Lab: Census of ECG Lab and 4,331 entries have been registered.
21. Integration of SNOMED CT with eHospital (NIC)

SNOMED CT is integrated through Web API of eHospital. It is integrated with two modules i.e. Admission and Discharge. Total number of transactions at the time of admission in eHospital is 1,688. Total number of transactions at the time of discharge in eHospital is 32,317.

List of new Modules In-house developed applications
1. Anticoagulant Register: It is an online register to enter Lab values of patients like PT/INR for the use of tele-consultations. Authenticated patients can enter their Lab values themselves in this application by OTP authentication and fresh prescription will be provided by the doctors.
2. Bone Bank: It is an application for entering patients’ bone details which will be preserved for later use. It is developed for Neuro and Ortho Departments.
3. Gynaecology eMLC: It is used for registering female MLC cases. In this module all the forms are printed out electronically.
4. Heart Transplant: It is used for registering patient details for heart transplantation for matching of heart for transplant.
5. Breast Cancer: It is used for registering Breast Cancer details. It is used in Surgery Department.

RIS, PACS and HIS at AIIMS
AIIMS currently is running the eHospital HIS wherein appointments for various radiological investigations are provided to patients. The radiological investigations available include:
1. Plain X-ray
2. CT Scan
3. MRI Scans
4. Ultrasonography
5. PET Scans
6. Ophthalmic Radiology
7. Mammography
8. Angiography
9. Dental X-rays

Other imaging modalities are also available. These investigations are offered across multiple locations in campuses of AIIMS. The individual departments which offer these services have their own Standalone PACS and RIS systems. A few departments do not have any PACS. In addition, AIIMS has also implemented a common centralized PACS Server with web-based visualizer—Oviyam. This system integrates with the standalone departmental PACS (Siemens/GE Centricity/Philips/Sonosite) and modalities. Few systems are as yet not integrated.
Current OPEN PACS Implementation

- **dcm4chee2.18.1**—Open Source PACS has been customized and renamed as Raster iPACS
- **HL7 ADT Module** has been configured to receive Patient Demographics from e-Hospital.
- **Oviyam viewer**—Module added to get studies from GE-PACS directly using DICOM C-Get/C-Move.
- **HL7 ADT A40** module configured to receive UHID from Vista/e-Hospital and replace it against the existing TC Number.
- **Auto forwarding of studies** from JPNATC PACS to AIIMS PACS configured. For this an additional AE Title Dec 2017—iOviyam2—Mobile viewer—Software update done.

**PACS integration with HIS e-Hospital:** This helps to send the requisition for radiological investigations such as X-ray, CT, MRI etc. via online to RIS systems. PACS integration had been done for 15 different modalities during April 2017-March 2018.

**Radiological Image has been stored/archived in Open PACS during 2018-19**

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| Total AIIMS Study Count | 2,12,797 | Total JPNATC Study Count | 1,16,359 |

**Administration**

- Computer facility involved in maintaining and the use of eOffice in all the sections of Administration/Finance/Engineering/Stores including Centers.
- Maintaining the Finance Server (Novell)/Administrative Server (Windows) for financial applications like Payroll system, GPF System, Tax module, Pension system etc. and web based administrative applications like Hostel Allotment and Registration System, House Allotment for Faculty, Computer facility forms, online Pay slips, online GPF Statement, online Form 16, Vigilance System, Letter of Intent (LOI) and Award System for ESD, Academics Teaching Schedule and Mail, Employee Data Display, Online Poison Information; Online Organ Donation Form; online transport system etc.
IT Infrastructure and Networking, Internet and Intranet Management Activities

Computer Facility provides network management facilities including high speed internet connectivity to various users of AIIMS through NKN connectivity from NIC. It maintains the AIIMS website at aiims.edu and aiims.ac.in.

1. Approximately 518 new internet connections have been provided to faculty members, officers and staff of AIIMS.

2. Provided high speed NKN internet connectivity for various Seminars/Conferences/Video conference:
   a. Wi-Fi facility provided in Ramalingamswami Board room for lecture organized by Department of Dietetics on 30 July 2018.
   b. Live streaming facility arranged for “All India Research Scholars Representative Meeting” for Scientific issue and discussion organized by Society of Young Scientist (SYS).
   d. Live streaming facility arranged for KERACON 2018 organized by RPC on 30 November to 2 December 2018.
   e. Live streaming facility arranged for 2nd National Conference of OT Technologists on Techniques in Anesthesia, Surgery and Critical Care organized by Department of Anesthesiology, Pain Medicine and Critical Care on 2 December 2018.
   f. Provision of high-speed internet for live transmission of lecture on 11 March 2019 organized by Neuroradiology, CNC.
   g. High speed internet connectivity provided for web telecast by NKN to other medical institutes on 18 May 2018.
   h. High speed internet connectivity provided for webinar for teaching by Pediatrics Surgery in India from AIIMS to all Pediatric Surgeons in India and also overseas.
   i. Conducted webcasting of the NUSICON 2018 during 11 and 12 January 2018 at JLN Auditorium.
   j. Provided telecast facility for 12th AIIMS Surgical week international Minimal Access Surgery Conference organized by Department of Surgery.
   k. Provided Wi-Fi connection for “INDSPNCON 2019 CONFERENCE” organized by Neurosurgery from 15 to 17 February 2018.
   l. Wi-Fi facility provided for training of AYUSH health professionals on oral health promotion.
   m. Wi-Fi facility provided for LTSICON 2018 organized by Department of Gastrointestinal Surgery.

3. Continued management of Unified Threat Management (UTM) firewall done for security of computer networks and application for management at gateway level Anti-Virus, Anti-Spam, IPS/IDS, load balancing and content filtering.

4. Continued management of the wireless networking zones at around 18 hostel locations, creating Wi-Fi zones for internet, information and online journals access to students and resident doctors. So far approximately 9,000 students have availed this facility. Currently 1,250 users are registered for this facility.

5. Continued BBDL OPAC Services and enhancement of library online resources subscribed through BB Dixit library through AIIMS website.

6. Continued management of Wi-Fi zone at BB Dikshit Library for internet and online journal access for students.

7. Internet facility through NKN lease line for faculty, staff and students is being maintained on 24/7 basis on the AIIMS network at around 8,500 nodes.

8. Maintenance of Proxy server and Mail server 24x7x365 days.

9. Facility management and call maintenance for internet and network user’s complaints and resolution 24x7x365 days through help-desk of computer facility.

10. VPN based access mechanism for e-Hospital Module, CPRS access from outside AIIMS continued management for Ballabgarh, AIIMS centers.

11. Continued management of IPSec tunnel for connecting NDDTC, JPNATC, and Centre for excellence in Epilepsy and Brain Research Center’s Gurgaon.

12. MAC ID based authentication provided to AIIMS faculty, scientists, Assistant and Deputy Nursing Superintendents for Wi-Fi based access to e-Hospital softwares and internet at wards, OPD, ICU and OTs etc.

13. Created approximately 50 IDs for SSL VPN access.

14. Created approximately 80 new email ids on aims.edu and aims.ac.in domain for faculty members, scientists and officers of AIIMS.
15. Regular E-mails sent to all faculties regarding various conference, seminars etc.
16. Technical specification for development of IT network infrastructure at CRHSP, Ballabgarh was prepared vetted by the technical specification committee for tendering.
17. Tender specification for the CAMC of Networking, PC, Peripherals and RC of spares was prepared and was vetted by the technical specification committee for tendering.
18. Involved in preparation of technical specification for host based antivirus solution for AIIMS.

Oral papers/posters presented


PUBLICATIONS

Chapter in Book: 1

S.N. Ragu Kumar was member of various Technical Specification Committee for development of IT Infrastructure for AIIMS and all its Centres and Upcoming Centres; monitoring of the services and all service providers/vendors pertaining to IT Implementation at AIIMS; Management/Administration of Computer Facility, NIC staff posted at Computer Facility and Contractual Staff working in Computer Facility; Conducted Orientation program for newly selected MBBS students, AIIMS, New Delhi; Lecture and demonstration given to postgraduate students from Indian Red Cross Society at Telemedicine Centre at AIIMS; attended the two week summer school training on security in computing from 25 June to 7 July 2018 at Department of Computer Science and Engineering Jaypee Institute of Information Technology, NOIDA, UP.

Savitri Prasad was Nodal Officer for eOffice Project (NIC) and coordinated and trained personnel for the use of eOffice; course coordinator and took classes of MSc, BSc and Post Certificate students for IT classes of College of Nursing; took IT related classes for Disaster Management Course for Indian Red Cross Society (Master’s course affiliated to IP University); designated as Central Assistant Public Information Officer (CAPIO) for computer facility; was involved with monitoring and maintaining of the finance server (Novell) for in-house developed financial applications; team leader for the development of APAR module and payroll module based on open source platform.

Dr S.K. Meher has taken a major role in implementing HIS (eHospital) and OPD clinical screening and other specialty module in newly established centre of NCI, Jhajjar. He is also supervising the core module, LIS module, Blood Bank, RIS, PACS and different clinical module developed in-house; Installation of computer networking and Wi-Fi for NCI, Jhajjar (Haryana); Involved in teaching activities of undergraduate and postgraduate students; member of condemnation committee for CNC; Member of technical committee for purchasing computer related items; Attended Digital Health week conference held in the Colombo, Sri Lanka and presented in APAMI 2018 (Transforming healthcare through innovation in Digital Health); Attended GT 2018 and Asia eHealth Information Network (AeHIN) held in Colombo, Sri Lanka; Board member of International Society for Gerontechnology 2018-2019; Adviser of India Association of Medical Informatics (IAMI). Organized NRCeS users meet organized by CDAC, Pune; Continuing as the Nodal Officer for SNOMED CT project at AIIMS by Ministry of Health and Family Welfare; Organized SNOMED CT introductory training program to clinicians of different clinical departments; Prepared technical documents for OPEN centralized PACS and VNA for NCI Jhajjar and AIIMS; Carried out study/survey in the inpatient department to observe the modalities of patients care services in the Wards/Labs of clinical departments of all centres and main hospital; Study of Open PACS process after implementation of new IT infrastructure in main server room by Hitachi.

Sanjay Gupta coordinated implementation of EHS Pharmacy Module, diet module etc. of eHospital Project; Software for elections got developed and coordinated online elections of FAIMS, SYS and Officers’ Association conducted using Information Kiosks at AIIMS; Online Grievance portal for employees implemented at AIIMS; Coordinated in networking being done at NCI, Jhajjar, New OPD, MCH and New Surgical Blocks at AIIMS; attended International Conference on interoperable Digital Health for Universal Health Coverage and APAMI 2018 at Colombo, Sri Lanka and presented paper on “Use of ‘Online Outpatient Appointment System’ based on overbooking strategy for optimizing hospital resource utilization in a tertiary care-public sector hospital”.

AIIMS 2018-19 / 793
Vinay Pande is Nodal Officer for the Digital Payments Infrastructure at AIIMS; looking after the Billing module of e-Hospital software; Team member for the development of SRS of APAR module, Payroll module and the software development/implementation; invited by Indian Red Cross Society to deliver lectures on ICT, MIS, Cyber Terrorism and Cyber security etc. for their PG course on Disaster Management (affiliated to GGS IP University, Delhi); for the AIIMS students of MSc (Nursing), BSc (Nursing), took Inf. Technology, HIS, Nursing and Medical Informatics, Bio-Medical Information retrieval, classes.

Hari Shanker conducted orientation program for MBBS students; took classes for MSc and BSc Nursing students; presented a paper titled “Integrated LAN, Wi-Fi and Wide Area Network at AIIMS for Healthcare Professionals and Students” in APAMI 2018 held on 7-12 October 2018, Colombo, Sri Lanka.

Pawan Kumar Sharma assigned as a Nodal Officer of AIIMS for the e-procurement portal GeM.

Tripta Sharma is maintaining and configuring e-Hospital application modules such as Appointment Module, Admission Discharge and Transfer Module, Inventory Module, EHS (Employees Health Services) Module in AIIMS and various Centres; involved in teaching activities of undergraduate and postgraduate students; Member of various departmental committees.

Archana and Ritu developed online Estate Allotment System (1st Phase Completed); Online Hostel Registration and Allotment System; Online Poison Information; Online Organ Donation Form.

### 11.6. Electron Microscope Facility (Department of Anatomy)

**Professor**

TC Nag

**Assistant Professor**

Subhash C Yadav

**Senior Technical Officer**

Sandeep Arya

**Technical Officer**

Chanda Panwar

### EDUCATION

1. Thirteen MBiotech students of the Department of Biotechnology, AIIMS, received 2 weeks training from 13 August to 1 September 2018 (as part of their 1st Semester Cell Biology Practical)
2. EM classes (theory as well as practical, Fridays only) for Anatomy postgraduates were conducted from 4 January to 31 March 2019

### CME/Workshops/Symposium/National and International Conferences

1. The summer training course in Electron Microscopy for technical personnel was held from 15 May to 25 June 2018. Six candidates were trained in sample processing, ultramicrotomy, CPD, sputter coating, TEM and SEM viewing and routine maintenance of microscopes
2. The 34th National Training Program in Electron Microscopy for Scientific Investigators was held from 27 November to 7 December 2018. Twenty-two candidates from different parts of the country participated in this training program. Twelve lectures were delivered by AIIMS faculty staffs and external experts to the participants
3. Six MSc 2nd year students (on training in Department of Physiology, AIIMS, New Delhi, faculty-in-charge Professor KP Kochhar) from Delhi Institute of Pharmaceutical Sciences, visited EM facility on 9 July 2018 and were instructed on principles of EM and processing of biological samples for EM observation
4. Dr Rafid Rholav (Pharmacy College, Basra, Iraq) visited EM Lab on 31 May 2018
5. Dr Aparajit Das, Department of Anatomy, Dublin, Ireland, visited EM Lab on 9 November 2018
6. Dr K Basu and Dr M Sengupta from Department of Pathology, IPGMER (Kolkata), visited EM Lab on 1 March 2019
Six MD Pathology Senior residents from BPKIHS, Dharan, Nepal, visited EM Lab on 12 March 2019.

Eighteen students, along with two faculty members from Cooch Behar Panchanan Barma University, West Bengal visited EM facility on 27 March 2019 and were instructed on principles of EM and processing of biological samples for EM observation.

CMEs, National and International Conferences

Lectures delivered

TC Nag
1. Ultrastructural changes of the choriocapillaris with aging, XXXIV Annual Meeting of the Electron Microscope Society of India, 19 July 2018, Institute of Physics, Bhubaneswar
2. Mitophagy in retinal photoreceptor cells after experimental iron overload, XXXVI Annual Meeting of Indian Academy of Neurosciences, 29 October 2018, BHU, Varanasi
3. Changes of photoreceptor cytoskeleton in aging human retina: Possible link to oxidative stress, IBRO-APRC School of Neurosciences, 9 November 2018, AIIMS, New Delhi

Subhash Chandra Yadav

RESEARCH

Funded projects

Ongoing

1. To study the role of Th (T helper)-17 cells in arthritis patients in Indian population, Late TK Das (Now steered by A. Shariff), ICMR, 4 years, 2015-19, Rs 40 lakhs
2. Ultrastructural and immunohistochemical analysis of human choroidal vessels with normal aging, TC Nag, ICMR, 3.5 years, 2015-18, Rs 21.4 lakhs
3. Simple, quick and onsite early diagnostic kit for pathogen detection in asymptomatic stage, Subhash Chandra Yadav, DBT, 3 years, 2016-19, Rs 50.21 lakhs
4. Magnetic nanoparticles and quantum dots coupled visual confirmation of cervical cancer cells from cytology sample: A cost effective, quick and suitable test for rural Indian setup, Subhash Chandra Yadav, SERB, 3 years, 2018-22, Rs 38.68 lakhs
5. External delivery of cisplatin using human papilloma virus (HPV 16) based nanocarriers for treatment of cervical cancer, Subhash Chandra Yadav, AIIMS-IIT Delhi, 2 years, 2019-21, Rs 10 lakhs
6. Development of quick and specific detection system of EWS-FLI-1 fusion protein, Subhash Chandra Yadav, DBT, 3 years, 2019-22, Rs 80 lakhs

Completed

1. Development of nano-drug delivery system for brimonidine for treatment of open angle glaucoma with lower dose, higher efficacy and prolonged action, Subhash Chandra Yadav, Intramural, 2 years, 2016-18, Rs 9 lakhs
Departmental projects

Ongoing
1. Epigenetic regulation of Brain Derived Neurotrophic Factor (BDNF) in the central auditory pathway and hippocampus of neonatal chicks exposed to prenatal sound stimulation
2. Light-induced oxidative stress and endogenous neuroprotective mechanisms in post-hatch chick retina
3. Remodeling in horizontal cells following light-induced retinal damage in rat
4. Visual, rapid, non-invasive and cost-effective BK virus detection system for renal transplanted patients using Gold nanoparticle coupled loop mediated isothermal amplification (Nano-LAMP)

Completed
1. Expression patterns of BDNF and Trk-B in neonatal chick retina exposed to light of variable photoperiods

Collaborative projects

Ongoing
1. Decipher mechanistic basis of the intracellular trafficking of the optically active nanoparticles using super resolution microscopy, School of Biotechnology, JNU, New Delhi
2. A novel Immuno Nano Fluorescence Assay (INFA) system for noninvasive detection of prostate cancer using urine-based protein biomarkers, PSA and MSMB (Pathology)

PUBLICATIONS

Journals: 13  Abstracts: 2

PATIENT CARE

Special laboratory facilities
During the year, special laboratory facilities provided for research and patient care are as follows:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Facility</th>
<th>User number</th>
<th>Specimens analyzed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Internal</td>
<td>External</td>
</tr>
<tr>
<td>1.</td>
<td>Transmission electron scope</td>
<td>224</td>
<td>327</td>
</tr>
<tr>
<td>2.</td>
<td>Scanning electron microscope</td>
<td>41</td>
<td>109</td>
</tr>
</tbody>
</table>

AWARDS, HONOURS AND SIGNIFICANT EVENTS


Dr Subhash C Yadav reviewed manuscripts from Nanoscale, Nanomedicine and Journal of Nanotechnology. He was awarded ‘Excellence in Microscopy’ for Medical Sciences by Electron Microscope Society of India (EMSI) in 2018 EMSI meeting ‘International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India’, Bhubaneswar. He was the coordinator of the workshop “Use of Environmental Scanning Electron Microscopy in Medicine”, in that meeting (16-20 July 2018). He was awarded long-term fellowship for foreign visit from Department of Health Research, Government of India.
11.7. Hostel Section

Superintendent of Hostels
Dr KK Deepak (up to 14 March 2019) Dr Sandeep Agarwala (from 15 March 2019)

Deputy Superintendent of Hostels
Dr S Datta Gupta
Dr Tanuj Dada
Dr KH Reeta
Dr Kapil Yadav

Dr SK Maulik
Dr Raj Kumar Yadav
Dr Vijay Kumar
Dr Kamlesh Kumar Sharma

Dr Neerja Bhatla
Dr Rakesh Kumar
Dr Partha Haldar
Mrs Bhupinder Kaur

Senior Store Officer (Hostels)
Shri Rakesh Kumar Sharma

Administrative Officer (Hostels)
Shri BK Singh

Account Officer (Hostels)
Shri Trilok Chand

Senior Warden
Shri Shashi Prakash Pandey

Warden
Mr Mohan Sharma

Mrs Seema Pruthi

Deputy Warden
Mr Satprakash Kalia

Mrs Suchita Kumari

Mr Sukhpal Mallick

Assistant Warden
Mrs Tripta Sharma

Ms Rani Varghese

Junior Warden
Mr Babu Lal Meena

Mr Dinesh Desai

Mr Rajesh Rawat

Mrs Nirmala

Mrs Sunil Devi

Ministerial and Contractual Staff
There are four ministerial and eight contractual staff in the hostel section.

Subordinate Staff
Twelve male office attendants and 20 female office attendants are posted in different hostels. There are several halls of residence with a capacity of over 1,812 (approximate) single/double rooms, 352 married accommodations, 480 accommodations for nursing students/staff nurses and 24 guest rooms. These are spread over different hostels and residence in the Main Campus, Masjid Moth, Ayurvedic Nagar and Trauma Centre (Raj Nagar).

Details of Hostels

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Hostels</th>
<th>Single Room</th>
<th>Two to Eight Seaters</th>
<th>Guest Room</th>
<th>Total Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No. 1 (Charak)</td>
<td>62</td>
<td>2x3 = 6 (BSc)</td>
<td>0</td>
<td>68</td>
</tr>
<tr>
<td>2</td>
<td>No. 2 (Jivak)</td>
<td>55</td>
<td>2x2 = 4 (BSc)</td>
<td>1</td>
<td>60</td>
</tr>
<tr>
<td>No.</td>
<td>Hostel Name</td>
<td>Male Accommodations</td>
<td>Female Accommodations</td>
<td>Total Accommodations</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------</td>
<td>---------------------</td>
<td>-----------------------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>No. 3 (Sushruta)</td>
<td>70</td>
<td>0</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>No. 4 (Madhava)</td>
<td>53</td>
<td>0</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>No. 5 (Nagarjuna)</td>
<td>53</td>
<td>0</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>No. 6 (Vagbhatta)</td>
<td>69</td>
<td>0</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>No. 7 (Ashwini)</td>
<td>107</td>
<td>0</td>
<td>107</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>No. 8 (Bharadwaj)</td>
<td>108</td>
<td>0</td>
<td>108</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>No. 18 (Kashyap)</td>
<td>283</td>
<td>0</td>
<td>283</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>JPN Apex Trauma Centre</td>
<td>58</td>
<td>0</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>No. 12 (Dhanwantri)</td>
<td>71</td>
<td>0</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>989</strong></td>
<td><strong>7</strong></td>
<td><strong>1,116</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Ladies Hostel**

<table>
<thead>
<tr>
<th>No.</th>
<th>Hostel Name</th>
<th>Male Accommodations</th>
<th>Female Accommodations</th>
<th>Total Accommodations</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>No. 9 (Parvati)</td>
<td>62</td>
<td>16+2+0+1 (32+6+5) = 43</td>
<td>1 106</td>
</tr>
<tr>
<td>13</td>
<td>No. 10 (Saraswati)</td>
<td>106</td>
<td>3+0+1+0+0+1 (6+4+8) = 18</td>
<td>1 125</td>
</tr>
<tr>
<td>14</td>
<td>No. 11 (Akshara)</td>
<td>21</td>
<td>5+0+3+0 (10+12) = 22</td>
<td>0 43</td>
</tr>
<tr>
<td>15</td>
<td>No. 13 (Laxmi)</td>
<td>20</td>
<td>13+0+1+0+1 (26+4+6) = 36</td>
<td>1 57</td>
</tr>
<tr>
<td>16</td>
<td>No. 14 (Atreya)</td>
<td>68</td>
<td>0</td>
<td>6 74</td>
</tr>
<tr>
<td>17</td>
<td>No. 19 (Patanjali)</td>
<td>307</td>
<td>0</td>
<td>0 307</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>584</strong></td>
<td><strong>119</strong></td>
<td><strong>712</strong></td>
</tr>
</tbody>
</table>

**Nursing Students/Staff Nurses Hostel**

<table>
<thead>
<tr>
<th>No.</th>
<th>Hostel Name</th>
<th>Male Accommodations</th>
<th>Female Accommodations</th>
<th>Total Accommodations</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>No. 14 (Atreya)</td>
<td>76</td>
<td>0</td>
<td>0 76</td>
</tr>
<tr>
<td>19</td>
<td>No. 15 (Medha)</td>
<td>160</td>
<td>76+14+4+0+0 (152+42+16)</td>
<td>3 373</td>
</tr>
<tr>
<td>20</td>
<td>No. 15 (Medha) Staff nurses</td>
<td>34</td>
<td>0</td>
<td>0 34</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>270</strong></td>
<td><strong>210</strong></td>
<td><strong>483</strong></td>
</tr>
</tbody>
</table>

**Hostel Accommodation for the Married**

<table>
<thead>
<tr>
<th>No.</th>
<th>Hostel Name</th>
<th>Male Accommodations</th>
<th>Female Accommodations</th>
<th>Total Accommodations</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>F-type</td>
<td>0</td>
<td>7x2 = 14 (1 room for store)</td>
<td>0 13</td>
</tr>
<tr>
<td>22</td>
<td>No. 14 (Atreya)</td>
<td>42</td>
<td>0</td>
<td>0 42</td>
</tr>
<tr>
<td>23</td>
<td>No. 16 (Agnivesa)</td>
<td>142</td>
<td>0</td>
<td>0 142</td>
</tr>
<tr>
<td>24</td>
<td>F-type for PhD</td>
<td>18</td>
<td>0</td>
<td>0 18</td>
</tr>
<tr>
<td>25</td>
<td>No. 17 (AmbHaja)</td>
<td>54</td>
<td>0</td>
<td>5 59</td>
</tr>
<tr>
<td></td>
<td>Ayurvedian Nag Type III</td>
<td>77</td>
<td>0</td>
<td>0 77</td>
</tr>
<tr>
<td>25</td>
<td>JPN Apex Trauma Centre</td>
<td>6</td>
<td>0</td>
<td>0 6</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>339</strong></td>
<td><strong>13</strong></td>
<td><strong>357</strong></td>
</tr>
</tbody>
</table>

**Grand Total**

- 1,109 (Males)
- 703 (Females)
- 480 (Nursing students and staff)
- 352 (Married)
- 24
- 2,668

**Significant Events**

1. Hostel No. 18 (Kashyap) handed over to hostel section in May 2018. There are 283 single accommodations for male Senior Residents, Junior Residents and PhD students and 42 seats (three-seater) for male MSc students and 20 seats (two-seater) for male BSc (PB) Nursing.

2. Hostel No. 19 (Patanjali) handed over to hostel section in January 2019. There are 307 single accommodations for female Senior Residents, Junior Residents and PhD students.

3. Nine lavatories in Hostel Nos. 1 and 2, 3 lavatories in Hostel No. 3, 3 lavatories in Hostel No. 4 and 21 lavatories in Hostel Nos. 7 and 8 were renovated. A bicycle stand was made in Hostel No. 7 (Ashwini).

4. In Hostel No. 9, 48 rooms windows have been replaced and the main gate wall renovation work has been done. Electrical Control Panel has been made in open area in Hostel Nos. 9, 10 and 13.

5. Five common lavatories and mess washroom in Hostel No. 10, and four lavatories and one common room in Hostel No. 13 have been renovated.

6. LED lights have been provided in all corridors of Hostel Nos. 9, 10, 13 and 17.

7. Three common lavatories and mess kitchen have been renovated and 144 rooms are under renovation in Hostel No. 14 (Atreya Hostel).
8. In Hostel No. 15 (Medha) all the common washrooms have been renovated. The mess kitchen windows and slabs have also been renovated and exhaust fans replaced.
9. In Hostel No. 16 (Agnivesa) ground to tenth floor common washroom provided. General Store (Tuck Shop) started.
10. Air conditioners provided in three new guest rooms and warden office in Hostel No. 17 (Ambuja).
11. Water cooler and R.O. plant has been installed and bicycle stand made in Hostel No. 18 (Kashyap).
12. All the room’s windows changed in JPNATC Hostel.
14. Hostel section extended with a chamber for Senior Warden and newly joined staff.
15. Compactor steel movable storage system has been obtained and Hostel records shifted to Hostel No. 7 (Ashwini).

Future Plans

1. Hostel No. 1 lavatories 7 and 9, Hostel No. 3 lavatories 1, 3, 7, 8 and 9, Hostel No. 5 lavatories 1, 3 and 5, Hostel No. 7 lavatories 4, 8, 12, 13, 15 and 17 and Hostel No. 8 lavatories 3, 7, 11, 13, 14, 15, 16, 17 and 18 are to be renovated.
2. Hostel No. 8 (Bharadwaj) first floor mess is under renovation with modular kitchen.
3. Hostel No. 9 store, three common rooms and guest room and Hostel No. 10 TV room, Gymkhana and Guest Room to be renovated.
4. Hostel No. 14 (Atreya) Guest Rooms and TV Room to be renovated.
5. All the room’s windows, both sick room, guest rooms, all the corridors, staircases and pantries of Hostel No. 15 (Medha) are to be renovated.
6. Main Hostel Store is to be shifted to old hostel office near gents hostel main gate.
7. In view of the increasing number of hostels and staff the Hostel Section is to be extended and Hostel Reception, Hostel Cashier and Guest Room booking counter are to be shifted to Room No. 32 in front of Hostel Section in Hostel No. 7.

11.8. Ethics Committee

The total number of project proposals and thesis protocol submitted and discussed in the ethics committee for above mentioned academic year are mentioned below:

Meetings

The number of meetings were:

- Institute Ethics Committee: 11
- Institute Ethics Committee for post graduate Research for Basic and Clinical Science: 12

The number of projects reviewed were:

- New project proposals: 700
- Review projects: 600
- Old projects: 190

The number of projects reviewed for postgraduate research in basic and clinical sciences were:

- New thesis: 770
- Review thesis: 480
- Old thesis: 100

In addition, the Institute Ethics Committee continues to receive notifications of serious adverse reactions, serious adverse events, annually progress reports, completion reports, etc.

The Institute Ethics Committee’s Standard Operating Procedures (SOPs) were modified and are available on the AIIMS website.

SIGNIFICANT EVENTS

The Institute Ethics Committee and Institute Ethics Committee for Post Graduate Research for Basic and Clinical Sciences are registered with the Drug Controller General of India and Federal Wide Assurance of the USA.
Chief
OP Kharbanda

Professor-in-Charge
(For Faculty Development of Basic Sciences)
KK Deepak

Professor-in-Charge
(For Faculty Development of Clinical Faculty of Medicine and Allied Disciplines)
Rita Sood

Professor-in-Charge
(For Faculty Development of Surgical Disciplines)
Anurag Srivastava

Education Media Generalist
Yogesh Kumar

Chief Technical Officer
Adarsh Kumar Sharma (up to October 2018)

Manager (HRD)
Sourav Sarkar (up to May 2018)

Administrative Officer
Pallav Kumar Chittej (from October 2018)

HIGHLIGHTS

- Ninety In-House Training Programmes were conducted during the year including

  1. 5 Nursing Administrator Empowerment Programme: For the first time a training programme was organised for the Nursing Superintendent (NS), Deputy NS and Assistant NS (140+), in consultation with the Departments of Hospital Administration and Psychiatry, and Chief Nursing Officer in 5 batches, and each batch for 5 days. The objective of the training programme was to empower the nursing administrators and their teams to provide quality care to patients. In every batch over 30 presentations were done by the participants beside core topics like Conduct Rules, Leave Rules, RTI, Consumer Protection Law, Medico Legal Cesses, Communication Skills, Stress Management, Team building, Infection Control Policy, Pride of AIIMS, etc. were conducted by the experts

  2. A 3-day Basic Course in Medical and Health Professions’ Education for medical, nursing and dental faculty to enhance their skills in teaching methodology and understanding towards medical education. 27 faculty members from different disciplines attended the program

  3. 2 Workshops on Writing a Research Paper in collaboration with the National Medical Journal of India

  4. 22 Induction programmes of 3 half days were organised for Nursing (18), OTA (3) and Security Guards (1)

  5. 12 Workshops for faculty and residents were organized on different topics with special emphasis on topics like Information Retrieval, Bibliography Management, Tools for Scientific Writing in MS Word, Designing Effective Presentation, Animation in PowerPoint, Excel in Excel, Creativity

  6. 32 lectures under Fellowship in Clinical Research Methodology and Evidence Based Medicine, on topics like Principles of Statistical Analysis, Use of Statistical Software, Regression Model, Case Control Studies, Cohort Studies, etc

  7. 17 training programme in collaboration with ORBO
CMET Hall Utilisation

CMET extended logistic support, including audiovisual to various departments (187 days) to organize workshops/CME apart from its own programme (185 days). During the year, three CMET halls—Education Hall, Technology Hall and Innovation Hall were used for 219, 161 and 80 days, respectively.

63rd Institute Day Exhibition

CMET played a key role in organizing the Institute Exhibition on 25-26 September 2018. The theme of the exhibition was: “Next Generation Healthcare”. Professor J.S. Guleria inaugurated the exhibition. Posters showing the history of top 10 discoveries, of all time in health sciences were the highlight of the exhibition. Posters of 52 departments/centres participated with their posters and videos on the said topic. The exhibition was designed using easily portable panel display system without using a single nails or screw. Ninety posters (42x72 inches) with acrylic mount were prepared and 6 video stations were on display.

1st AIIMS Annual Research Day-2019

On the occasion of 1st AIIMS Research Day an exhibition was organised by Research Section in collaboration with CMETi, in which over 450 posters were displayed, over 220 posters for PhD, MBBS and MSc students were designed and printed at CMETi. CMETi also assisted SRs and JRs in designing over 200 e-posters. CMETi managed this exhibition in-house including printing and display.

Mini-health exhibitions

1. Autism Awareness: Together we can, 11 April 2018, CMETi designed and printed 40 posters
2. RP Centre Day Exhibition: 10 March 2019, CMETi designed and printed 40 posters
3. Childhood Cancer Exhibition: 27 February 2019, CMETi designed and printed 16 posters

46th Convocation of AIIMS

CMET photography team took over 2,400 high resolution photographs of the Annual Convocation of AIIMS held on 12 December 2018. All the photographs were uploaded on AIIMS website www.aiims.edu, and made available to the students free of cost.

Two six monthly CMET Training calendars—(i) June to December 2018 and (ii) January to June 2019, were distributed well in advance to the faculty, residents and staff of AIIMS which resulted in better turnout of the participants.

Media-related achievements

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical/Event photography and scan, X-ray/CT/MRI/Slide, number of requisitions</td>
<td>536</td>
</tr>
<tr>
<td>Colour printing (A3 size)</td>
<td>800+</td>
</tr>
<tr>
<td>Colour printing (A4 size)</td>
<td>1,500+</td>
</tr>
<tr>
<td>Video recording and editing, No. of requisitions</td>
<td>546</td>
</tr>
<tr>
<td>Designing/printing of large format posters (including 450+ e-posters)</td>
<td>2,350+</td>
</tr>
<tr>
<td>On screen presentations, No. of requisitions</td>
<td>480</td>
</tr>
<tr>
<td>Certificates prints A4 Size (CMET workshops + Other department)</td>
<td>1,085</td>
</tr>
</tbody>
</table>

EDUCATION

Fellowship in Clinical Research Methodology and Evidence Based Medicine

The following faculty members are involved in the Fellowship programme.

1. Kameshwar Prasad (Chief Coordinator)
2. Anurag Srivastava
3. S.N. Dwivedi
4. Shashi Kant
5. Govind Makaria
6. V. Sreenivas
7. Deepti Vibha
8. Nalin Mehta
9. Tulika Seth
10. Rajeev Kumar
11. Rakesh Lodha
12. Neerja Bhatla
13. Navneet Wig
14. Manju Vatsa
15. Peush Sahni
The following lectures were organised during the year:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Topic</th>
<th>Speaker</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Diagnostic test study</td>
<td>Dr Sachin Kumar</td>
<td>4 April 2018</td>
</tr>
<tr>
<td>2.</td>
<td>Systematic Review and Meta Analysis</td>
<td>Dr Sachin Kumar, Dr Kameshwar Prasad</td>
<td>11 April 2018</td>
</tr>
<tr>
<td>3.</td>
<td>Systematic Review and Meta Analysis</td>
<td>Dr Kameshwar Prasad</td>
<td>18 April 2018</td>
</tr>
<tr>
<td>4.</td>
<td>Review Class</td>
<td>Dr Kameshwar Prasad</td>
<td>25 April 2018</td>
</tr>
<tr>
<td>5.</td>
<td>Review Class</td>
<td>Dr Kameshwar Prasad</td>
<td>2 May 2018</td>
</tr>
<tr>
<td>6.</td>
<td>Introduction to Clinical Research Methodology and Evidence Based Medicine</td>
<td>Dr Kameshwar Prasad</td>
<td>1 August 2018</td>
</tr>
<tr>
<td>7.</td>
<td>Critical appraisal of a theory paper</td>
<td>Dr Kameshwar Prasad and Dr Kapil Dev Soni</td>
<td>8 August 2018</td>
</tr>
<tr>
<td>8.</td>
<td>Understanding the results of a randomized Controlled Trials</td>
<td>Dr Kameshwar Prasad and Dr Kapil Dev Soni</td>
<td>29 August 2018</td>
</tr>
<tr>
<td>9.</td>
<td>Paper Discussion</td>
<td>Dr Kapil Dev Soni</td>
<td>5 September 2018</td>
</tr>
<tr>
<td>10.</td>
<td>Overview of study design</td>
<td>Dr Kameshwar Prasad and Dr Deepti Vibha</td>
<td>12 September 2018</td>
</tr>
<tr>
<td>11.</td>
<td>Critical appraisal of a theory paper</td>
<td>Dr Kameshwar Prasad and Dr Deepti Vibha</td>
<td>19 September 2018</td>
</tr>
<tr>
<td>12.</td>
<td>Critical appraisal of a theory paper</td>
<td>Dr Deepti Vibha</td>
<td>26 September 2018</td>
</tr>
<tr>
<td>13.</td>
<td>Critical appraisal of a theory paper</td>
<td>Dr Kapil Dev Soni and Dr Deepti Vibha</td>
<td>3 October 2018</td>
</tr>
<tr>
<td>14.</td>
<td>Biostatistics for Clinical Research</td>
<td>Dr V. Sreenivas</td>
<td>18 October 2018</td>
</tr>
<tr>
<td>15.</td>
<td>Biostatistics for Clinical Research</td>
<td>Dr V. Sreenivas</td>
<td>24 October 2018</td>
</tr>
<tr>
<td>16.</td>
<td>Biostatistics for Clinical Research</td>
<td>Dr V. Sreenivas</td>
<td>25 October 2018</td>
</tr>
<tr>
<td>17.</td>
<td>Biostatistics for Clinical Research</td>
<td>Dr V. Sreenivas</td>
<td>29 October 2018</td>
</tr>
<tr>
<td>18.</td>
<td>Biostatistics for Clinical Research</td>
<td>Dr Sachin Kumar</td>
<td>15 November 2018</td>
</tr>
<tr>
<td>19.</td>
<td>Biostatistics for Clinical Research</td>
<td>Dr Sachin Kumar and Dr Amit Kumar</td>
<td>22 November 2018</td>
</tr>
<tr>
<td>20.</td>
<td>Biostatistics for Clinical Research</td>
<td>Dr S.N. Dwivedi</td>
<td>29 November 2018</td>
</tr>
<tr>
<td>21.</td>
<td>Biostatistics for Clinical Research</td>
<td>Dr S.N. Dwivedi</td>
<td>5 December 2018</td>
</tr>
<tr>
<td>22.</td>
<td>Biostatistics for Clinical Research</td>
<td>Dr S.N. Dwivedi</td>
<td>17 January 2019</td>
</tr>
<tr>
<td>23.</td>
<td>Software practice</td>
<td>Dr Amit Kumar</td>
<td>23 January 2019</td>
</tr>
<tr>
<td>24.</td>
<td>Biostatistics for Clinical Research</td>
<td>Dr S.N. Dwivedi</td>
<td>24 January 2019</td>
</tr>
<tr>
<td>25.</td>
<td>Biostatistics for Clinical Research</td>
<td>Dr S.N. Dwivedi</td>
<td>30 January 2019</td>
</tr>
<tr>
<td>26.</td>
<td>Biostatistics for Clinical Research</td>
<td>Dr Amit Kumar and Dr Sachin Kumar</td>
<td>31 January 2019</td>
</tr>
<tr>
<td>27.</td>
<td>Cohort Study Session-1</td>
<td>Dr Kameshwar Prasad</td>
<td>7 February 2019</td>
</tr>
<tr>
<td>28.</td>
<td>Cohort Study Session-2</td>
<td>Dr Deepti Vibha</td>
<td>13 February 2019</td>
</tr>
<tr>
<td>29.</td>
<td>Cohort Study Session -3</td>
<td>Dr Kameshwar Prasad</td>
<td>20 February 2019</td>
</tr>
<tr>
<td>30.</td>
<td>Cohort Study Session-4</td>
<td>Dr Kapil Dev Soni</td>
<td>5 March 2019</td>
</tr>
<tr>
<td>31.</td>
<td>Kaplan-Meier Method of Survival analysis</td>
<td>Dr Kameshwar Prasad</td>
<td>20 March 2019</td>
</tr>
<tr>
<td>32.</td>
<td>Kaplan-Meier Method of Survival analysis</td>
<td>Dr Kapil Dev Soni and Dr Amit Kumar</td>
<td>27 March 2019</td>
</tr>
</tbody>
</table>

List of 90 Workshops/Training Programme

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Topic</th>
<th>Mode</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. to 12.</td>
<td>Basic Life Support Training Programme for Nursing Officers in 12 Batches two courses every month</td>
<td>Full day</td>
<td>July to December 2018</td>
</tr>
<tr>
<td>13.</td>
<td>Wound Care and Pressure Sore Prevention</td>
<td>Full day</td>
<td>10 April 2018</td>
</tr>
<tr>
<td>14.</td>
<td>Organ and Tissue Donation</td>
<td>Half day</td>
<td>17 April 2018</td>
</tr>
<tr>
<td>15.</td>
<td>Quality Improvement in Health Care</td>
<td>Half day</td>
<td>25 April 2018</td>
</tr>
<tr>
<td>16.</td>
<td>How to prepare a better Journal Club</td>
<td>Half day</td>
<td>27 April 2018</td>
</tr>
<tr>
<td>17.</td>
<td>Organ and Tissue Donation</td>
<td>Half day</td>
<td>3 April 2018</td>
</tr>
<tr>
<td>18.</td>
<td>Good Bedside Transfusion Practices for Residents</td>
<td>Half day</td>
<td>6 April 2018</td>
</tr>
<tr>
<td>19.</td>
<td>Writing a research paper</td>
<td>2 Full days</td>
<td>5-6 April 2018</td>
</tr>
<tr>
<td>S. No.</td>
<td>Topic</td>
<td>Mode</td>
<td>Date</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------------------------------------------</td>
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</tr>
<tr>
<td>20</td>
<td>Organ and Tissue Donation</td>
<td>Half day</td>
<td>22 May 2018</td>
</tr>
<tr>
<td>21</td>
<td>Submitting Manuscript for publication</td>
<td>Half day</td>
<td>2 May 2018</td>
</tr>
<tr>
<td>22</td>
<td>Good Bedside Transfusion Practices for Nursing Officer</td>
<td>Half day</td>
<td>4 May 2018</td>
</tr>
<tr>
<td>23</td>
<td>Organ and Tissue Donation</td>
<td>Half day</td>
<td>8 May 2018</td>
</tr>
<tr>
<td>24</td>
<td>Nursing Administrator Empowerment Program for NS/ANS and DNS (1 Batch)</td>
<td>Half day</td>
<td>14-18 May 2018</td>
</tr>
<tr>
<td>25</td>
<td>Organ and Tissue Donation</td>
<td>Half day</td>
<td>12 June 2018</td>
</tr>
<tr>
<td>26</td>
<td>Organ and Tissue Donation</td>
<td>Half day</td>
<td>5 June 2018</td>
</tr>
<tr>
<td>27</td>
<td>Nursing Administrator Empowerment Program for NS/ANS and DNS (2 Batch)</td>
<td>Half day</td>
<td>4-8 June 2018</td>
</tr>
<tr>
<td>28</td>
<td>Nursing Administrator Empowerment Program for NS/ANS and DNS (3 Batch)</td>
<td>Half day</td>
<td>18-22 June 2018</td>
</tr>
<tr>
<td>29</td>
<td>Nursing Administrator Empowerment Program for NS/ANS and DNS (4 Batch)</td>
<td>Half day</td>
<td>2-6 July 2018</td>
</tr>
<tr>
<td>30</td>
<td>Nursing Administrator Empowerment Program for NS/ANS and DNS (5 Batch)</td>
<td>Half day</td>
<td>9-13 July 2018</td>
</tr>
<tr>
<td>31</td>
<td>Induction Programme-2018, for Security Guards</td>
<td>5 Half day</td>
<td>23-27 July 2018</td>
</tr>
<tr>
<td>32</td>
<td>Induction Programme-2018, for Nursing Officers Batch 1</td>
<td>Half day</td>
<td>2-4 August 2018</td>
</tr>
<tr>
<td>33</td>
<td>Induction Programme-2018, for Nursing Officers Batch 2</td>
<td>Half day</td>
<td>6-8 August 2018</td>
</tr>
<tr>
<td>34</td>
<td>Media in Education (MSc Nursing)</td>
<td>Half day</td>
<td>9 August 2018</td>
</tr>
<tr>
<td>35</td>
<td>Epilepsy: Primary Care for Residents and Nursing Staff</td>
<td>Half day</td>
<td>9 August 2018</td>
</tr>
<tr>
<td>36</td>
<td>Organ Retrieval Workshops for Residents and Nursing Officers</td>
<td>Half day</td>
<td>10 August 2018</td>
</tr>
<tr>
<td>37</td>
<td>Tools for Scientific Writing in MS Word (MSc Nursing)</td>
<td>Half day</td>
<td>11 August 2018</td>
</tr>
<tr>
<td>38</td>
<td>Induction Programme-2018, for Nursing Officers Batch 3</td>
<td>Half day</td>
<td>13-16 August 2018</td>
</tr>
<tr>
<td>39</td>
<td>Information retrieval and bibliography management (MSc Nursing)</td>
<td>Half day</td>
<td>16 August 2018</td>
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<tr>
<td>40</td>
<td>Psycho-Social Skills for the health care provider</td>
<td>Half day</td>
<td>17 August 2018</td>
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<tr>
<td>41</td>
<td>Induction Programme-2018, for Nursing Officers Batch 4</td>
<td>Half day</td>
<td>16-18 August 2018</td>
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<tr>
<td>42</td>
<td>Designing posters and pamphlets (MSc Nursing)</td>
<td>Half day</td>
<td>18 August 2018</td>
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<tr>
<td>43</td>
<td>Organ Retrieval Workshops for Residents and Nursing Officers</td>
<td>Half day</td>
<td>20 August 2018</td>
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<tr>
<td>44</td>
<td>Induction Programme-2018, for Nursing Officers Batch 5</td>
<td>Half day</td>
<td>27-29 August 2018</td>
</tr>
<tr>
<td>45</td>
<td>Animation in PowerPoint (MSc Nursing)</td>
<td>Half day</td>
<td>29 August 2018</td>
</tr>
<tr>
<td>46</td>
<td>Creativity (MSc Nursing)</td>
<td>Half day</td>
<td>31 August 2018</td>
</tr>
<tr>
<td>47</td>
<td>Induction Programme-2018, for Nursing Officers Batch 6</td>
<td>Half day</td>
<td>30 August-1 September 2018</td>
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<tr>
<td>48</td>
<td>Organ Retrieval Workshops for Residents and Nursing Officers</td>
<td>Half day</td>
<td>10 September 2018</td>
</tr>
<tr>
<td>49</td>
<td>Induction Programme-2018, for Nursing Officers Batch 7</td>
<td>Half day</td>
<td>10-12 September 2018</td>
</tr>
<tr>
<td>50</td>
<td>Induction Programme for Operation Theatre Assistant Batch 1</td>
<td>Half day</td>
<td>10-12 September 2018</td>
</tr>
<tr>
<td>51</td>
<td>Organ Retrieval Workshops for Residents and Nursing Officers</td>
<td>Half day</td>
<td>14 September 2018</td>
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<tr>
<td>52</td>
<td>Workshop on Wound Management for Nursing officers</td>
<td>One day</td>
<td>18 September 2018</td>
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<tr>
<td>53</td>
<td>Writing a Research Paper for Residents in collaboration with NMJI</td>
<td>Two days</td>
<td>28-29 September 2018</td>
</tr>
<tr>
<td>54</td>
<td>Induction Programme for Operation Theatre Assistant Batch 2</td>
<td>Half day</td>
<td>1-4 October 2018</td>
</tr>
<tr>
<td>55</td>
<td>Organ Retrieval Workshops for Residents and Nursing Officers</td>
<td>Half day</td>
<td>8 October 2018</td>
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<tr>
<td>56</td>
<td>Induction Programme for Operation Theatre Assistant Batch 3</td>
<td>Half day</td>
<td>8-10 October 2018</td>
</tr>
<tr>
<td>57</td>
<td>Safe Blood Transfusion Practice for Nursing officers</td>
<td>Half day</td>
<td>26 October 2018</td>
</tr>
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<td>58</td>
<td>Organ Retrieval Workshops for Residents and Nursing Officers</td>
<td>Half day</td>
<td>2 November 2018</td>
</tr>
<tr>
<td>59</td>
<td>Organ Retrieval Workshops for Residents and Nursing Officers</td>
<td>Half day</td>
<td>12 November 2018</td>
</tr>
<tr>
<td>60</td>
<td>Medical Humanities Improve Functional Outcomes</td>
<td>Half day</td>
<td>15 November 2018</td>
</tr>
<tr>
<td>61</td>
<td>Organ Retrieval Workshops for Residents and Nursing Officers</td>
<td>Half day</td>
<td>7 December 2018</td>
</tr>
<tr>
<td>62</td>
<td>Organ Retrieval Workshops for Residents and Nursing Officers</td>
<td>Half day</td>
<td>10 December 2018</td>
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<tr>
<td>S. No.</td>
<td>Topic</td>
<td>Mode</td>
<td>Date</td>
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<tr>
<td>63.</td>
<td>Wound Management for Nursing Officers</td>
<td>Full day</td>
<td>18 January 2019</td>
</tr>
<tr>
<td>64.</td>
<td>Information Retrieval and Bibliography Management</td>
<td>Half day</td>
<td>22 January 2019</td>
</tr>
<tr>
<td>65.</td>
<td>Orientation Programme for Retiring Staff</td>
<td>2 Half day</td>
<td>23-24 January 2019</td>
</tr>
<tr>
<td>66.</td>
<td>Tools for Scientific Writing in MS Word</td>
<td>Half day</td>
<td>29 January 2019</td>
</tr>
<tr>
<td>67.</td>
<td>ORBO Training Programme Senior Resident</td>
<td>Half day</td>
<td>29 January 2019</td>
</tr>
<tr>
<td>68.</td>
<td>Induction Programme-2019, for Nursing Officers Batch-1</td>
<td>3 Half day</td>
<td>28-30 January 2019</td>
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<tr>
<td>69.</td>
<td>Induction Programme-2019, for Nursing Officers Batch-2</td>
<td>3 Half days</td>
<td>31 January-2 February 2019</td>
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<tr>
<td>70.</td>
<td>Designing Effective Presentation</td>
<td>Half day</td>
<td>5 February 2019</td>
</tr>
<tr>
<td>71.</td>
<td>Induction programme-2019, for Nursing Officers Batch-3</td>
<td>3 Half days</td>
<td>4-6 February 2019</td>
</tr>
<tr>
<td>72.</td>
<td>Conduct Rules</td>
<td>Half day</td>
<td>7 February 2019</td>
</tr>
<tr>
<td>73.</td>
<td>Animation in PowerPoint</td>
<td>Half day</td>
<td>12 February 2019</td>
</tr>
<tr>
<td>74.</td>
<td>Induction Programme-2019, for Nursing Officers Batch-4</td>
<td>3 Half days</td>
<td>11-13 February 2019</td>
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<tr>
<td>75.</td>
<td>Induction Programme-2019, for Nursing Officers Batch-5</td>
<td>3 Half days</td>
<td>14-16 February 2019</td>
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<tr>
<td>76.</td>
<td>ORBO Training Programme Senior Resident</td>
<td>Half day</td>
<td>18 February 2019</td>
</tr>
<tr>
<td>77.</td>
<td>Excel in Excel</td>
<td>Half day</td>
<td>19 February 2019</td>
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<tr>
<td>78.</td>
<td>Induction Programme-2019, for Nursing Officers Batch-6</td>
<td>3 Half day</td>
<td>18-20 February 2019</td>
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<tr>
<td>79.</td>
<td>Induction Programme-2019, for Nursing Officers Batch-7</td>
<td>3 Half day</td>
<td>21-23 February 2019</td>
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<tr>
<td>80.</td>
<td>Introduction to Medical Photography</td>
<td>Half day</td>
<td>5 March 2019</td>
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<tr>
<td>81.</td>
<td>Leave Rule/LTC/EHS</td>
<td>Half day</td>
<td>6 March 2019</td>
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<tr>
<td>82.</td>
<td>Induction Programme-2019, for Nursing Officers Batch 8</td>
<td>3 Half day</td>
<td>7-9 March 2019</td>
</tr>
<tr>
<td>83.</td>
<td>Basic Course in Medical Education for Faculty</td>
<td>3 Full day</td>
<td>11-13 March 2019</td>
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<tr>
<td>84.</td>
<td>Wound Management for Nursing officers</td>
<td>Full day</td>
<td>15 March 2019</td>
</tr>
<tr>
<td>85.</td>
<td>Induction Programme-2019, for Nursing Officers Batch 9</td>
<td>3 Half day</td>
<td>14-16 March 2019</td>
</tr>
<tr>
<td>86.</td>
<td>ORBO Training Programme Senior Resident</td>
<td>Half day</td>
<td>18 March 2019</td>
</tr>
<tr>
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<td>ORBO Training Programme Nurses</td>
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**Lectures delivered**

**Yogesh Kumar**

*(61 Workshop/Sessions)*

1. Sessions on Team Building and Conflict Management during 18 induction programmes
2. Sessions (10) during Nursing Administrator Empowerment Program for NS/ANS and DNS (5 Batch, 5 days each) on Communication Skills, Team Building and Conflict Management, and worked as facilitator for over 30 sessions where each participant presented a 10 minutes presentation related to nursing, May-July 2018
3. Workshop on Information Retrieval in Health Science and Bibliography Management, and Tools for scientific writing in MS Word in workshop ‘Decoding Thesis for PG Students’ Manav Rachna Dental College, Faridabad, 14 July 2018
5. Media in Education (MSc Nursing), 9 August 2018
6. Tools for Scientific Writing in MS Word (MSc Nursing), 11 August 2018
7. Information retrieval and bibliography management (MSc Nursing), 16 August 2018
8. Designing posters and pamphlets (MSc Nursing), 18 August 2018
9. Animation in PowerPoint (MSc Nursing), 29 August 2018
10. Creativity (MSc Nursing), 31 August 2018
11. Sessions (6) during Induction Programme for Operation Theatre Assistant for 3 Batches on (i) Pride of AIIMS and (ii) Team Building, September 2018
12. Preconference workshop on Role of Media in Education, National Conference of Anatomical Society of India, Department of Anatomy, AIIMS Rishikesh, 12 November 2018
13. Information Retrieval and Bibliography Management (Faculty/Residents), 22 January 2019
14. Tools for Scientific Writing in MS Word (Faculty/Residents), 29 January 2019
15. Session on ‘Preparation for Retirement’ during Orientation Programme for Retiring Staff of AIIMS, 23-24 January 2019
16. Designing Effective Presentation (Faculty/Residents), 5 February 2019
17. Animation in PowerPoint (Faculty/Residents), 12 February 2019
18. Excel in Excel (Faculty/Residents), 19 February 2019
19. Workshop on Information Retrieval in Health Science and Bibliography Management, during 5 day refresher programme on research methodology in the field of disability rehabilitation and special education at Pt Deendayal Upadhyay National Institute for Person with Physical Disabilities, New Delhi, 24 February 2019
20. Introduction to Medical Photography (Faculty/Residents), 5 March 2019
21. Sessions (5) on ‘Poster Designing’ for residents, PhD, MSc, MBBS students to meet the target of over 450 posters for 1st Annual Research Day-2019
22. Session on ‘Media in Education’ during the CMETi workshop on Basic Course in Medical Education for Faculty of AIIMS, 11-13 March 2019

Pallav Kumar Chittej

14 Workshop/Sessions

1. 11 sessions on CSS Conduct Rules, Leave Rules, LTC Rules and EHS Rules during the induction programmes, January-March 2019
2. Session on ‘Retirement Papers’ during Orientation Programme for Retiring Staff of AIIMS, 23-24 January 2019
3. Session on ‘Conduct Rules: AIIMS Perspective’ for administrative staff in the workshop on Conduct Rules, 7 February 2019
4. Session on ‘LTC and EHS’ for administrative staff in the workshop, 6 March 2019

### AIIMS in the News

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<td>AIIMS goes the 3D way for retina surgery in adults</td>
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<td>AIIMS takes lead in the newly introduced medical category in the ranking</td>
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<td>One in every 5 school students a “problematic” internet user</td>
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<td>Don’t pop just any pill to beat acidity, eat greens and exercise, say doctors</td>
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<td>Patient of rare heart disease gets fresh lease of life</td>
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<td>एम्स पूर्व सेंटर में बनेगी 500 बेल्ट के नए सेंटर</td>
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<td>Joined at the hip: AIIMS faces twin test</td>
<td>Mail Today</td>
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<td>77.</td>
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<td>डॉक्टर के: दिल्ली के 40 डॉक्टर भर्ती किए</td>
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<td>78.</td>
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<td>Study links low Vitamin D levels with onset of diabetes</td>
<td>The Hindu</td>
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<td>Foundation stone laid</td>
<td>The Times of India</td>
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<td>एम्स के पैरामेडिकल स्टाफ ने किया प्रदर्शन</td>
<td>Amar Ujala</td>
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<td>भीमाल व इच्छा लालए एम्स में किया प्रदर्शन</td>
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<td>82.</td>
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<td>E-Learning Launched at AIIMS</td>
<td>The Indian Express</td>
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<td>कमर से जुड़ी कारों बेडरों को अलग कर फिर इत्ताहम प्रेग्नेंसी एम्स</td>
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<td>देश में विचित्रतावीक देश के बाहर एम्स की जिब्रान: स. पी. नडा</td>
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<td>देशकर्त्ता के डॉक्टर, स्टूडेंट को ट्रेनिंग दीयों एम्स की फेकट्री</td>
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<td>Delhi’s AIIMS to be ‘pain-free’ hospital with a dedicated palliative</td>
<td>Hindustan Times</td>
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<td>एम्स ने योग्य प्रशासन दिया एम्स योग्य प्रशासन लागू</td>
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<td>अफगानिस्तान में नैरों मिल रहा सही हलाल, ध्वान में घायल सिख लाया जा रहा एम्स</td>
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<td>2 sets of conjoined twins come to AIIMS for surgical separation</td>
<td>The Times of India</td>
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<td>AIIMS signs MoU with IIT-K for research</td>
<td>The Asian Age</td>
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<td>22 July 2018</td>
<td>Delhi AIIMS signs MoU with IIT Kharagpur for collaboration in education, research</td>
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<td>97.</td>
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<td>AIIMS new cure for abdominal cancer</td>
<td>Mail Today</td>
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<td>देश में हर साल सिस्ट और गर्भ नैंसर के 1.75 लाख नए मरीज</td>
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<td>AIIMS—led team develops highly sensitive, portable test for TB meningitis</td>
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<td>लिंवर की खफाई कर सकती कई अंशों को बीमार</td>
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<td>एम्स में भी खास मुख हो जारीया फेक्टर का ट्रांसफार्मट, डिल्टी में फहला होमिस्टॉल</td>
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<td>एम्स 10 मरीजों का निशुल्क कर्मचारी फेक्टर विप्लव विप्लव</td>
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<td>Over 16,000 poisoning calls in 10 years, kids most vulnerable</td>
<td>The Indian Express</td>
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<td>मुस्क चिकित्सा: और एमआरआई की मिलेंगी सलाह</td>
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<td>AIIMS starts wellness clinics to tackle stress</td>
<td>The Hindu</td>
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<td>AIIMS lends a helping hand to students stuck in floods</td>
<td>Mail Today</td>
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<td>अब आई एम एम्स भी कर सफेद गुणवत्ता का मूल्यांकन</td>
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<td>26 August 2018</td>
<td>22 new AIIMS coming up across the country, says health minister</td>
<td>Hindustan Times</td>
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<td>IIT-D develops cheaper drug for snakebites</td>
<td>Hindustan Times</td>
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<td>एम्स में अंगठन को ले ऑनलाइन शर्म</td>
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<td>AIIMS, IIT to develop low cost medical tech solutions</td>
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<td>इलाज को साथ आए एम्स एम्स डिक्टर्स बेंस</td>
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<td>बायोमेडिकल इंजीनियरिंग पार्क बायोमेडिकल इंजीनियरिंग पार्क</td>
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<td>AIIMS-Delhi, AIIMS to jointly set up biomedical research park</td>
<td>The Hindu</td>
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<td>सिंचाई का कॉनिया नोटीफिकैशन, सिंचाई का कॉनिया का इस्तेमाल करना शुरू किया है</td>
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<td>The Hindu</td>
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<td>Engineering Department</td>
</tr>
<tr>
<td>17.</td>
<td>Foundation Stone Laying Ceremony</td>
<td>29 June 2018</td>
<td>AIIMS Bulletin</td>
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<tr>
<td>18.</td>
<td>Inauguration of the AIIMS SET Facility</td>
<td>7 July 2018</td>
<td>Telemedicine</td>
</tr>
<tr>
<td>S. No.</td>
<td>Public Lecture</td>
<td>Date</td>
<td>Departments</td>
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</tr>
<tr>
<td>1.</td>
<td>Autism: Empowering with skill development</td>
<td>11 April 2018</td>
<td>Paediatrics, Obstetrics and Gynaecology, Urology</td>
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<tr>
<td>2.</td>
<td>Dengue fever</td>
<td>16 May 2018</td>
<td>Medicine, Paediatrics</td>
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<td>3.</td>
<td>Coping with Schizophrenia</td>
<td>24 May 2018</td>
<td>Psychiatry</td>
</tr>
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<td>4.</td>
<td>All you need to know about Multiple Sclerosis (MS)</td>
<td>30 May 2018</td>
<td>Neurology</td>
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<td>5.</td>
<td>Hepatitis</td>
<td>28 July 2018</td>
<td>Gastroenterology</td>
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<tr>
<td>6.</td>
<td>Strong Bones—Healthy and Safe Aging</td>
<td>6 September 2018</td>
<td>Orthopaedics</td>
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<td>7.</td>
<td>Young People and Mental Health in a Changing World</td>
<td>9 October 2018</td>
<td>Psychiatry</td>
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<td>8.</td>
<td>Spinal deformities in adults and children</td>
<td>23 October 2018</td>
<td>Neurosurgery</td>
</tr>
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<td>9.</td>
<td>Stroke</td>
<td>30 October 2018</td>
<td>Neurology</td>
</tr>
<tr>
<td>10.</td>
<td>Childhood Cancer</td>
<td>27 February 2019</td>
<td>Paediatrics</td>
</tr>
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</table>

Public Lecture Series Program
12. Publications

**Journals**


425. Gupta S, Goswami K. Letter to the editor regarding the comment by Gupta and Goswami about our article “individual and household risk factors of severe acute malnutrition among under five children in Mao, Chad: a matched case-control study”. *Arch Public Health*. 2019; 77:18.


446. Gupta V, Sharma VK. Authors’ reply: Everything is in the name - Macular hyperpigmentation of uncertain etiology or acquired dermal macular hyperpigmentation of varied etiologies? Indian J Dermat Venereol Leprol. 2019; 85:87-8.


572. Kedia S, Ahuja V. Is the emergence of inflammatory bowel disease a prime example of “the third epidemiological transition”? Indian J Gastroenterol. 2018; 37:183-5.


708. Kusuma YS, Babu BV. Migration and health: A systematic review on health and health care of internal migrants in India. *Int J Health Plann Manage*. 2018; 33:775-93.


AIIMS 2018-19 / 853


1085. Satyarthee GD, Moscote-Salazar LR, Agrawal A. Cystotoperitoneal Shunt Surgery During Infancy In Porencephalic Cyst Located In Frontal Region Led To Regaining Of Developmental Milestone. 


1089. Satyarthee GD, Singh M. Role of Gamma Knife Radiosurgery in Management of Intracranial Meningioma Located in the Cavernous Sinus: Short Review. 


1092. Satyarthee GD. Commentary. 

1093. Satyarthee GD. Dr. Hsiang-Lai Wen: Father of Hong Kong Neurosurgery. 

1094. Satyarthee GD. Abdominal cerebrospinal fluid pseudocyst: Surgical management. 

   *Asian J Neurosurg* 2018; 14:334-5.


1097. Satyarthee GD. Post-Decompressive Cranietomy Surgery, Ventriculomegaly, Or Hydrocephalus Development: Imaging, Prevention, And Management. 

1098. Satyarthee GD. Primary Extrudal Meningioma Of Posterior Fossa Associated With Acquired Chiari Malformation: A Short Review. 

1099. Satyarthee GD. Primary Intracranial Fibrosarcoma: Review of Management Options with Cases Illustration. 

   *Neurology.* 2018; 90:904.


1102. Satyarthee GD. Spinal cord perfusion pressure predicts neurologic recovery in acute spinal cord injury. 
   *Neurology.* 2018; 90:904.


   *JOACP.* 2018; 34:275-6.

   *HLA.* 2019; 93:16-23.


1177. Sharma VK, Gupta V, Ramam M. Authors’ reply: Dermoscopy of Lichen Planus Pigmentosus in Indian patients - Pitfalls to avoid. *Indian J Dermatol Venereol Leprol*. 2018; 84:314-5.


<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Journal</th>
<th>Year</th>
<th>Page</th>
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</thead>
</table>


**Abstracts**


247. Maurya M, Nag TC, Kumar P. Retinal changes in continuous light: an electron


**Chapters in Books**


Books

28. Sood S. *Microbiology for Nurses*, 3rd ed, New Delhi, Elsevier, Reprint 2018
# ALL INDIA INSTITUTE OF MEDICAL SCIENCES (MAIN)

## BALANCE SHEET AS AT 31-03-2019

(Amount-Rs.)

<table>
<thead>
<tr>
<th>CORPUS/CAPITAL FUND AND LIABILITIES</th>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corpus/Capital fund and Liabilities</td>
<td>1</td>
<td>45237582250</td>
<td>37181444955</td>
</tr>
<tr>
<td>Reserves and Surplus</td>
<td>2</td>
<td>3613521480</td>
<td>3216644653</td>
</tr>
<tr>
<td>Earmarked / Endowment Fund</td>
<td>3</td>
<td>98996372</td>
<td>73185700</td>
</tr>
<tr>
<td>Secured Loans &amp; Borrowings</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unsecured Loans &amp; Borrowings</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Deferred Credit Liabilities</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Current Liabilities and Provisions</td>
<td>7</td>
<td>2534013546</td>
<td>2256923923</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>51484113648</strong></td>
<td><strong>42728199231</strong></td>
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<table>
<thead>
<tr>
<th>ASSETS</th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Fixed Assets</td>
<td>8</td>
<td>34969632885</td>
<td>29892284054</td>
</tr>
<tr>
<td>Investments from Earmarked / Endowment funds</td>
<td>9</td>
<td>160510000</td>
<td>50010000</td>
</tr>
<tr>
<td>Investments-others</td>
<td>10</td>
<td>253253424</td>
<td>253253424</td>
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<tr>
<td>Current Assets, Loan &amp; Advances etc.</td>
<td>11</td>
<td>16100717339</td>
<td>12532651753</td>
</tr>
<tr>
<td>Misc. Expenditure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(to the extent not written off or adjusted)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>51484113648</strong></td>
<td><strong>42728199231</strong></td>
</tr>
</tbody>
</table>

Accounting policies and notes forming part of accounts       | 24       |                  |                  |

Accounts Officer                                             | Financial Advisor | Sr. Financial Advisor |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Director
## ALL INDIA INSTITUTE OF MEDICAL SCIENCES (MAIN)
### INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2019

### INCOME

<table>
<thead>
<tr>
<th>Description</th>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from Sales/Services</td>
<td>12</td>
<td>307541206</td>
<td>311381385</td>
</tr>
<tr>
<td>Grants/Subsidies</td>
<td>13</td>
<td>14733402569</td>
<td>12897041408</td>
</tr>
<tr>
<td>Fees/Subscriptions</td>
<td>14</td>
<td>212516061</td>
<td>137345952</td>
</tr>
<tr>
<td>Income from Investments (Income on Invest. From earmeked/endow. Funds transfered to funds)</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Income for Royalty, Publication etc.</td>
<td>16</td>
<td>212591830</td>
<td>0</td>
</tr>
<tr>
<td>Interest Earned</td>
<td>17</td>
<td>244602000</td>
<td>242008004</td>
</tr>
<tr>
<td>Other Income</td>
<td>18</td>
<td>941858558</td>
<td>927053379</td>
</tr>
<tr>
<td>Increase/(decrease) in stock of Finished goods and works-in-progress</td>
<td>19</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td></td>
<td>16652512224</td>
<td>14514830128</td>
</tr>
</tbody>
</table>

### EXPENDITURE

<table>
<thead>
<tr>
<th>Description</th>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment Expenses</td>
<td>20</td>
<td>10445535358</td>
<td>8936739835</td>
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<tr>
<td>Other Administrative Expenses etc.</td>
<td>21</td>
<td>2741700557</td>
<td>1807479112</td>
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<tr>
<td>Material and supply</td>
<td>21B</td>
<td>3068411374</td>
<td>2997628780</td>
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<tr>
<td>Expenditure on Grants, Subsidies etc.</td>
<td>22</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Interest</td>
<td>23</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Depreciation (Net Total at the year-end - corresponding to Schedule 8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (B)</strong></td>
<td></td>
<td>16255647289</td>
<td>13741847727</td>
</tr>
</tbody>
</table>

**Balance being excess of Income over Expenditure (A-B)**: 396864935 772982401

**Transfer to Special Reserve (Specify each)**: 396864935 772982401

**Balance being Surplus/(Deficit) carried to Corpus/Capital Fund**: 396864935 772982401

**TOTAL**: 16652512224 14514830128

---

Accounts Officer: Financial Advisor: Sr. Financial Advisor: Director:
<table>
<thead>
<tr>
<th>SCHEDULE 1- CORPUS/CAPITAL FUND:</th>
<th>2018-19</th>
<th>2017-18</th>
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</thead>
<tbody>
<tr>
<td>Balances as at the begining of the year</td>
<td>37181444955</td>
<td>27266998170</td>
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<tr>
<td>Add : Contributions towards Corpus/Capital Fund</td>
<td>8131708953</td>
<td>9914462824</td>
</tr>
<tr>
<td>Less Condemnation during the year</td>
<td>75571658</td>
<td>45237582250</td>
</tr>
<tr>
<td>BALANCE AS AT THE YEAR-END</td>
<td>45237582250</td>
<td>37181444955</td>
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</table>

<table>
<thead>
<tr>
<th>SCHEDULE 2- RESERVES AND SURPLUS:</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Capital Reserve:</td>
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<tr>
<td>As per last Account</td>
<td>2914919</td>
<td>2914919</td>
</tr>
<tr>
<td>Addition during the year</td>
<td>11892</td>
<td>2926811</td>
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<tr>
<td>Less: Deductions during the year</td>
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<td></td>
</tr>
<tr>
<td>2. Revaluation Reserve</td>
<td></td>
<td></td>
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<tr>
<td>As per last Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Addition during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: Deductions during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Special Reserves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As per last Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Addition during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: Deductions during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. General Reserve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As per last Account</td>
<td>3213729734</td>
<td>2440747333</td>
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<tr>
<td>Addition during the year</td>
<td>396864935</td>
<td>772982401</td>
</tr>
<tr>
<td>Less: Deductions during the year</td>
<td>0</td>
<td>3610594669</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3613521480</td>
<td>3216644653</td>
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### SCHEDULE 3 - EARMARKED/ENDOWMENT FUNDS

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<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
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<tbody>
<tr>
<td>a) Opening balance of the funds</td>
<td>73185700</td>
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<tr>
<td>b) Additions to the Funds:</td>
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</tr>
<tr>
<td>i. Donations/grants</td>
<td>13967735</td>
<td>67966668</td>
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<tr>
<td>ii. Income from investments made on account of funds</td>
<td>9139788</td>
<td>219032</td>
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<tr>
<td>iii. Other additions (specify nature) CSR</td>
<td>2703149.00</td>
<td>5000000</td>
</tr>
<tr>
<td><strong>TOTAL (a+b)</strong></td>
<td><strong>98996372</strong></td>
<td><strong>73185700</strong></td>
</tr>
<tr>
<td>c) Utilisation/Expenditure towards objectives of funds</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>i. Capital Expenditure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Fixed Assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Revenue Expenditure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Salaries, Wages and allowances etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Other Administrative expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td><strong>NET BALANCE AS AT THE YEAR-END (a+b-c)</strong></td>
<td><strong>98996372</strong></td>
<td><strong>73185700</strong></td>
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</table>

**Accounts Officer**

**Financial Advisor**

---

### SCHEDULE 4-SECURED LOANS AND BORROWINGS:

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Central Government</td>
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<td></td>
</tr>
<tr>
<td>2. State Government</td>
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</tr>
<tr>
<td>3. Financial Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Other Loans (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Other Institutions and Agencies</td>
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<td></td>
</tr>
<tr>
<td>6. Debentures and Bonds</td>
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<td></td>
</tr>
<tr>
<td>7. Others (Specify)</td>
<td></td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>0</strong></td>
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</table>

**Accounts Officer**

**Financial Advisor**
### SCHEDULE 5 - UNSECURED LOANS AND BORROWING

<table>
<thead>
<tr>
<th>Source of Loan</th>
<th>2018-19</th>
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</tr>
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<tbody>
<tr>
<td>1. Central Government</td>
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<td>2. State Government</td>
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<tr>
<td>3. Financial Institutions</td>
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</tr>
<tr>
<td>4. Banks:</td>
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<tr>
<td>a) Term Loans</td>
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</tr>
<tr>
<td>b) Other Loans (specify)</td>
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<td>0</td>
</tr>
<tr>
<td>5. Other Institutions and Agencies</td>
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<td>0</td>
</tr>
<tr>
<td>6. Debentures and Bonds</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7. Fixed Deposits</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8. Others (Specify)</td>
<td>0</td>
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</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
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</tbody>
</table>

**Note:** Amounts due within one year

### SCHEDULE 6 - DEFERRED CREDIT LIABILITIES:

<table>
<thead>
<tr>
<th>Source of Liability</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Acceptances secured by hypothecation of capital equipment and other assets</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b) Others</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Note:** Amount due within one year

---

**Accounts Officer**

**Financial Advisor**
## SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS

<table>
<thead>
<tr>
<th>A. CURRENT LIABILITIES AND PROVISIONS</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acceptances</td>
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<td></td>
</tr>
<tr>
<td>2. Sundry Creditors:</td>
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<td></td>
</tr>
<tr>
<td>a) For Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Others (Custom Duty to be paid)</td>
<td>34220408</td>
<td>18854849</td>
</tr>
<tr>
<td>3. Advances Received</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Interest accrued but not due on:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Secured Loans/borrowings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Unsecured Loans/borrowings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Statutory Liabilities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Overdue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Other current Liabilities</td>
<td>2499793138</td>
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</tr>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td><strong>2534013546</strong></td>
<td><strong>2256923923</strong></td>
</tr>
</tbody>
</table>

| B. PROVISIONS                        |         |         |
| 1. For Taxation                      |         |         |
| 2. Gratuity                          |         |         |
| 3. Superannuation/Pension            |         |         |
| 6. Accumulated Leave Encashment      |         |         |
| 6. Trade Warranties/Claims           |         |         |
| 6. Others (specify)                  |         |         |
| **TOTAL (B)**                        |         |         |
| **TOTAL (A+B)**                      | **2534013546** | **2256923923** |

Accounts Officer

Financial Advisor
## SCHEDULE 8
### FIXED ASSETS DISCRIPTION

<table>
<thead>
<tr>
<th>SCHEDULE 8</th>
<th>GROSS BLOCK</th>
<th>DEPRICIATION</th>
<th>NET BLOCK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost/valuation</td>
<td>As at the beginning of the year</td>
<td>Additions during the year</td>
</tr>
<tr>
<td>A. FIXED ASSETS: 1 LAND:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Freehold / Leasehold</td>
<td>841194087</td>
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<td>841194087</td>
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<tr>
<td>2) BUILDING</td>
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</tr>
<tr>
<td>a) On Freehold Land</td>
<td>16503624159</td>
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</tr>
<tr>
<td>b) On Leasehold Land</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>c) Ownership Flats/ Premises not belonging to the entity</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>d) Superstructures on Land not belonging to the entity</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3) PLANT MACHINERY &amp; EQUIPMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Vehicles</td>
<td>11385251758</td>
<td>2093808648</td>
<td>71312474</td>
</tr>
<tr>
<td>b) Furniture &amp; Fixure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Office Equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Computers/Storage Equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Library/Peripheral Software</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Library Books</td>
<td>190852900</td>
<td>37245600</td>
<td>3761984</td>
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<tr>
<td>g) Computer and Software</td>
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<tr>
<td>h) Library Books</td>
<td>921097337</td>
<td>210719875</td>
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<td>TOTAL OF CURRENT YEAR</td>
<td>29892284054</td>
<td>5152920489</td>
<td>75571658</td>
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**(Amount - Rs.)**

---

**Accounts Officer**

**Financial Advisor**
### SCHEDULE 9 - INVESTMENTS FROM EARMARKED / ENDOWMENT

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Government Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Other approved Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others Fixed Deposits (Endowment fund)</td>
<td>160500000</td>
<td>50000000</td>
</tr>
<tr>
<td>7. Seed money for opening of Bank Account (Donation)</td>
<td>10000</td>
<td>10000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>160510000</strong></td>
<td><strong>50010000</strong></td>
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### SCHEDULE 10 - INVESTMENTS - OTHERS

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Government Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Other approved Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others (NPS Fixed Deposit)</td>
<td>240000000</td>
<td>240000000</td>
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<tr>
<td>7. Investment of Donations</td>
<td>13253424</td>
<td>13253424</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>253253424</strong></td>
<td><strong>253253424</strong></td>
</tr>
</tbody>
</table>

Accounts Officer

Financial Advisor
### SCHEDULE II - CURRENT ASSETS, LOANS, ADVANCES ETC.

#### A CURRENT ASSETS:

1. **Inventories:**
   - a) Stores and Spares
   - b) Loose Tools
   - c) Stock-in-trade
     - Finished Goods
     - Work-in-progress
     - Raw Material

2. **Sundry Debtors:**
   - a) Debts Outstanding
   - b) Others (outside recoveries)
   - c) Misc. recoveries receivable from Centres (Engg. Work)

3. **Cash balances in hand (including cheques/drafts and imprest)**

4. **Bank Balances:**
   - a) With Scheduled Banks:
     - On Current Accounts
     - On Deposit Accounts (includes margin money)
     - On FDRs
   - b) With non-Scheduled Banks:
     - On Current Accounts
     - On Deposit Accounts
     - On Savings Accounts

5. **Post Office - Savings Accounts**

**TOTAL (A)**

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventories:</td>
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</tr>
<tr>
<td>a) Stores and Spares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Loose Tools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Stock-in-trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finished Goods</td>
<td>56242163</td>
<td>109742163</td>
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<tr>
<td>Work-in-progress</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Raw Material</td>
<td>918650</td>
<td>931150</td>
</tr>
<tr>
<td>Sundry Debtors:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Debts Outstanding</td>
<td>2024883864</td>
<td>3754443504</td>
</tr>
<tr>
<td>b) Others (outside recoveries)</td>
<td>18489924</td>
<td>15315377</td>
</tr>
<tr>
<td>c) Misc. recoveries receivable from Centres (Engg. Work)</td>
<td>2000000000</td>
<td>0</td>
</tr>
<tr>
<td>Cash balances in hand (including cheques/drafts and imprest)</td>
<td>918650</td>
<td>931150</td>
</tr>
<tr>
<td>Bank Balances:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Current Accounts</td>
<td>2024883864</td>
<td>3754443504</td>
</tr>
<tr>
<td>On Deposit Accounts (includes margin money)</td>
<td>18489924</td>
<td>15315377</td>
</tr>
<tr>
<td>On FDRs</td>
<td>2000000000</td>
<td>0</td>
</tr>
<tr>
<td>b) With non-Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Current Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Deposit Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Office - Savings Accounts</td>
<td></td>
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<tr>
<td>TOTAL (A)</td>
<td>4100534601</td>
<td>3880432194</td>
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Accounts Officer: Financial Adviser:
<table>
<thead>
<tr>
<th>SCHEDULE 11- CURRENT ASSETS, LOANS, ADVANCES ETC. (Contd.)</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>B LOANS, ADVANCES AND OTHER ASSETS</td>
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<td></td>
</tr>
<tr>
<td>1. Loans:</td>
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<td></td>
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<tr>
<td>a) Staff</td>
<td>3990673</td>
<td>2986235</td>
</tr>
<tr>
<td>b) Other Entities engaged in activities/objectives similar to that of Entity</td>
<td></td>
<td></td>
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<tr>
<td>c) Other (Adv for purchase of iron and steel</td>
<td>2340588</td>
<td>2340588</td>
</tr>
<tr>
<td>2. Advances and other amounts recoverable in cash or in kind or for value to be received:</td>
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<td></td>
</tr>
<tr>
<td>a) On Capital Account</td>
<td></td>
<td></td>
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<tr>
<td>b) Prepayments</td>
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<td></td>
</tr>
<tr>
<td>c) Others (Advance Payments)</td>
<td>11993851477</td>
<td>8646892736</td>
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<tr>
<td>3. Income Accrued:</td>
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<td></td>
</tr>
<tr>
<td>a) On Investments from Earmarked/Endowment Funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) On Investments - Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) On Loans and Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
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<tr>
<td>(includes income due unrealised - Rs……)</td>
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<td></td>
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<tr>
<td>4. Claims Receivable</td>
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<td></td>
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<tr>
<td>TOTAL (B)</td>
<td>12000182738</td>
<td>8652219559</td>
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<tr>
<td>TOTAL (A + B)</td>
<td>16100717339</td>
<td>12532651753</td>
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</tbody>
</table>

Accounts Officer

Financial Advisor
## Schedule 12 - Income from Sales / Services

### 1) Income from Sales
- 1. Sale of Finished Goods
- 2. Sale of Raw Material
- 3. Sale of Scraps

### 2) Income from Services
- a) Hospital receipts
- b) Professional / Consultancy Services
- c) Agency Commission and Brokerage
- d) Maintenance Services (Equipment/Property)
- e) Others (Specify) Hospital Receipt

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL</strong></td>
<td>307541206</td>
<td>311381385</td>
</tr>
</tbody>
</table>

## Schedule 13 - Grants / Subsidies

### (Irrevocable Grants & Subsidies Received)
- 1. Central Government
- 2. State Government(s)
- 3. Government Agencies
- 4. Institutions/ Welfare Bodies
- 5. International Organisations
- 6. Others (Specify)

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL</strong></td>
<td>14733402569</td>
<td>12897041408</td>
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Accounts Officer
Financial Advisor
### SCHEDULE 14 - FEES/SUBSCRIPTIONS

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tuition Fee</td>
<td>69283146</td>
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<tr>
<td>2. Licence Fee</td>
<td>49832288</td>
<td>27941996</td>
</tr>
<tr>
<td>3. Seminar/Program Fees</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. Exam. Receipt</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. Others (Specify) EHS</td>
<td>93400627</td>
<td>64567388</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>212516061</strong></td>
<td><strong>137345952</strong></td>
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### SCHEDULE 15 - INCOME FROM INVESTMENTS

<table>
<thead>
<tr>
<th></th>
<th>Investment from Earmarked Fund</th>
<th>Investment-Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Interest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Govt. Securities</td>
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<td></td>
</tr>
<tr>
<td>a) Other Bonds/Debentures</td>
<td></td>
<td></td>
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<tr>
<td>2. Dividends:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Shares</td>
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<td></td>
</tr>
<tr>
<td>a) On Mutual Fund Securities</td>
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<tr>
<td>3. Rents</td>
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<tr>
<td>4. Others (Specify)</td>
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<tr>
<td><strong>TOTAL</strong></td>
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<td>0</td>
</tr>
</tbody>
</table>

**TRANSFERRED TO EARMARKED/ENDOWMENT FUNDS**

---

**Accounts Officer**  
**Financial Advisor**
## SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ET AL

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Income from Royalty</td>
<td></td>
<td></td>
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<tr>
<td>2. Income from Publications</td>
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<td></td>
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<tr>
<td>3. Others (specify) NPS</td>
<td>212591830</td>
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<td><strong>TOTAL</strong></td>
<td><strong>212591830</strong></td>
<td><strong>0</strong></td>
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## SCHEDULE 17 - INTEREST EARNED

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<tr>
<th>Section</th>
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<tbody>
<tr>
<td>1. On Term Deposits:</td>
<td></td>
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</tr>
<tr>
<td>a) With Scheduled Banks</td>
<td>243180431</td>
<td>242002474</td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) With Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. On Savings Accounts:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Post Office Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. On Loans:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Employees/Staff</td>
<td>1421569</td>
<td>5530</td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
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<tr>
<td>4. Interest on Debtors and other Receivables</td>
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<td><strong>TOTAL</strong></td>
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<td><strong>242008004</strong></td>
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**Note:** Tax deducted at source to be indicated

**Accounts Officer**  
Financial Advisor
### SCHEDULE 18 - OTHERS INCOME 2018-19 2017-18

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
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<tbody>
<tr>
<td>1. Misc. Receipt</td>
<td>15031001</td>
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</tr>
<tr>
<td>2. Estb. Receipt (Scheme)</td>
<td>60199321</td>
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<td>3. Exam Section Receipt</td>
<td>866628236</td>
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<td>4. General Donations</td>
<td>0</td>
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<td><strong>TOTAL</strong></td>
<td>941858558</td>
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### SCHEDULE 19 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS 2018-19 2017-18

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Closing stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Less: Opening Stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NET INCREASE/(DECREASE) [a+b]</strong></td>
<td>0</td>
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### SCHEDULE 20 - ESTABLISHMENT EXPENSES 2018-19 2017-18

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and Wages</td>
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</tr>
<tr>
<td>Travelling Allowance</td>
<td>39120542</td>
<td>36500867</td>
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<tr>
<td>Contribution to Provident Fund</td>
<td>17351441</td>
<td>23258400</td>
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<tr>
<td>Contribution to Other Fund (Scheme Cell)</td>
<td>120000</td>
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</tr>
<tr>
<td>Staff Welfare Expenses (DLIS)</td>
<td>1992389599</td>
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<tr>
<td>Expenses on Employees &quot;Retirement and Terminal Benefits&quot;</td>
<td>1977099959</td>
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<tr>
<td>Others (NPS)</td>
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### SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC. 2018-19 2017-18

<table>
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<tr>
<th>Item</th>
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</tr>
</thead>
<tbody>
<tr>
<td>a) Purchases of hospital stores</td>
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<td></td>
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<tr>
<td>b) Labour and processing expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Cartage and Carriage Inwards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Electricity and power</td>
<td>685677911</td>
<td>585417220</td>
</tr>
<tr>
<td>e) Water charges</td>
<td>50139349</td>
<td>46003652</td>
</tr>
<tr>
<td>f) Insurance</td>
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</tr>
<tr>
<td>g) Repairs and maintenance (AMC/CAMC)</td>
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<td>665480858</td>
</tr>
<tr>
<td>h) Repairs and maintenance of Buildings</td>
<td>733955308</td>
<td>289095288</td>
</tr>
<tr>
<td>i) Rent, Rates and Taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j) Vehicles, Running and Maintenance</td>
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<td></td>
</tr>
<tr>
<td>k) Postage, Telephone and Communication Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l) Printing and Stationary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m) Travelling and Conveyance Expenses</td>
<td>73843579</td>
<td>76450853</td>
</tr>
<tr>
<td>n) Expenses on Seminar/Workshops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o) Subscription Expenses</td>
<td></td>
<td></td>
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<tr>
<td>p) Expenses on Fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>q) Auditors Remuneration</td>
<td></td>
<td></td>
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<tr>
<td>r) Hospitality Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>s) Professional Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>t) Provision for Bad and Doubtful Debts/Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>u) Irrecoverable Balances Written-off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v) Packing Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>w) Hostel</td>
<td></td>
<td></td>
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<tr>
<td>x) Bank Charges</td>
<td>360891</td>
<td>2384</td>
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<td>y) Advertisement and Publicity</td>
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<td>z) Others (specify) (Contingency charge)</td>
<td>1197723519</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2741700557</strong></td>
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</table>

Accounts Officer Financial Advisor

### SCHEDULE 21B - MATERIAL AND SUPPLIES 2018-19 2017-18

<table>
<thead>
<tr>
<th>Item</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
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<tbody>
<tr>
<td>Hospital stores</td>
<td>3068411374</td>
<td>2997628780</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>3068411374</strong></td>
<td><strong>2997628780</strong></td>
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</table>

Accounts Officer Financial Advisor
## SCHEDULE 22-EXPENDITURE ON GRANTS, SUBSIDIES ETC. 2018-19 2017-18

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a). Grants given to Institutions/Organizations</td>
<td></td>
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<tr>
<td>b). Subsidies given to Institutions/organisations</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>0</td>
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</table>

**Note**: name of the Entities, their activities along with the amount of grants/subsidies are to be disclosed.

## SCHEDULE 23-INTEREST 2018-19 2017-18

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) On fixed Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) On other Loans (including Bank charges)</td>
<td></td>
<td></td>
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<tr>
<td>c) Others (Specify) Endowment interest transfer to Research Section</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>0</td>
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</tbody>
</table>
### OPENING BALANCE

- **Cash in Hand**: 93,11,590
- **Bank Balances**: 323,38,678

### RECEIPTS 2018-19

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grants received from Govt. of India</td>
<td>20,50,00,000</td>
<td>10,50,00,000</td>
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<tr>
<td>Revenue</td>
<td>2,02,95,00,000</td>
<td>1,90,31,00,000</td>
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<tr>
<td>Advance on Capital Work-in-Progress</td>
<td>3,05,00,000</td>
<td>2,50,00,000</td>
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<tr>
<td>Grants received for specific purpose</td>
<td></td>
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<tr>
<td>Scheme Cell</td>
<td>7,89,00,000</td>
<td>6,75,00,000</td>
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<tr>
<td>Income on investments from</td>
<td></td>
<td></td>
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<tr>
<td>Dr. B.R. A.I.R.C.H.</td>
<td>11,56,00,000</td>
<td>11,56,00,000</td>
</tr>
<tr>
<td>Dr. R.P. Centre</td>
<td>9,80,00,000</td>
<td>9,80,00,000</td>
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<tr>
<td>N.D.D.C.</td>
<td>1,33,00,000</td>
<td>1,33,00,000</td>
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<tr>
<td>Other sources</td>
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### PAYMENTS 2018-19

<table>
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<tr>
<th>Description</th>
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<th>2017-18</th>
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<tbody>
<tr>
<td>Establishment Expenses (Scheduled 20A)</td>
<td>2,40,00,000</td>
<td>2,40,00,000</td>
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<tr>
<td>Others Administrative Expenses (Scheduled 21A)</td>
<td>2,04,00,000</td>
<td>1,70,00,000</td>
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<tr>
<td>Purchase of Fixed Assets</td>
<td>5,40,00,000</td>
<td>5,00,00,000</td>
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<tr>
<td>Purchase of Hospital stores</td>
<td>4,34,00,000</td>
<td>3,85,00,000</td>
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<td>SAP (Expenditure)</td>
<td>3,30,00,000</td>
<td>3,00,00,000</td>
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<tr>
<td>Grants transferred to Centres</td>
<td>8,00,00,000</td>
<td>7,00,00,000</td>
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<tr>
<td>Other expenses</td>
<td>1,80,00,000</td>
<td>1,50,00,000</td>
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</tbody>
</table>

### CLOSING BALANCE

- **Cash in Hand**: 9,44,00,000
- **Bank Balances**: 1,84,00,000

### ENDOWMENT/Donation

- **Poor patient A/c**: 5,36,00,000
- **Endowment fund**: 0
- **NPS (Interest)**: 1,74,00,000
- **Interest received**: 3,18,00,000

### INCOME ON INVESTMENTS FROM

- **Dr. B.R. A.I.R.C.H. (including NCI Jhajjar)**: 1,16,00,000
- **Dr. R.P. Centre**: 9,31,00,000
- **N.D.D.C.**: 9,31,00,000
- **Interest on Bank deposits**: 2,56,00,000

### INTEREST RECEIVED

- **On Bank deposits**: 1,74,00,000
### RECEIPTS

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
<th>PAYMENTS</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>v) FD Maturity Accounts (NPS)</td>
<td>20000000</td>
<td>0</td>
<td>iii) Grant in Aid Salary</td>
<td>64935117</td>
<td>50997549</td>
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<tr>
<td>vi) FD Maturity (Poor Pt. A/c)</td>
<td>2874547</td>
<td>590788</td>
<td>iv) Swatchta Action Plan</td>
<td>0</td>
<td>50000000</td>
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<tr>
<td>vii) Unclaimed cheques/dues transfer as receipts</td>
<td>0</td>
<td>58590200</td>
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<tr>
<td>Deposit received for AIIMS Jodhpur</td>
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<td>41000000</td>
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<tr>
<td><strong>Other Income</strong></td>
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<td><strong>CIMR</strong></td>
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<tr>
<td>i) Capital Assets</td>
<td>1490358</td>
<td>14684557</td>
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<td>ii) Grant in Aid General</td>
<td>699245</td>
<td>830585</td>
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<tr>
<td><strong>misc Receipts</strong></td>
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<tr>
<td>i) Misc Receipts</td>
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<td>29104286</td>
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<tr>
<td>ii) Examination Receipt</td>
<td>850003808</td>
<td>824388504</td>
<td>i) Grant in Aid General (Repayment) (HEFA)</td>
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<td>iii) Hospital Receipts</td>
<td>301062438</td>
<td>293977385</td>
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<tr>
<td>iv) Tuition Fee</td>
<td>69283146</td>
<td>44836568</td>
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<tr>
<td>v) Licence Fee</td>
<td>49832288</td>
<td>27941996</td>
<td>Intra Mural Grant</td>
<td>50000000</td>
<td>50000000</td>
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<td>vi) Employees Health Scheme (EHS)</td>
<td>93400627</td>
<td>64567388</td>
<td>UNDCP</td>
<td>0</td>
<td>71900000</td>
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<tr>
<td>vii) A/c No.10874585570 Closed (Examination)</td>
<td>16624428</td>
<td>0</td>
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<tr>
<td><strong>N.D.D.T.C.</strong></td>
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<tr>
<td>i) Grant Transfer to NDDTC</td>
<td>252500000</td>
<td>219000000</td>
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<td>ii) Loan to NDDTC</td>
<td>15000000</td>
<td>31000000</td>
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<tr>
<td>iii) Swatchta Action Plan</td>
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<td>50000000</td>
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<td></td>
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</tr>
<tr>
<td><strong>IX. Other Receipts</strong></td>
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<tr>
<td>i) Fund Received for specific purpose (Direct Received)</td>
<td>611717494</td>
<td>146910754</td>
<td>i) Payment against specific grant (Scheme Cell)</td>
<td>1197292174</td>
<td>1045925402</td>
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<tr>
<td>ii) Cochlear Implant Patient Treatment</td>
<td>27949839</td>
<td>28332000</td>
<td>ii) Payment for patient treatment A/c</td>
<td>116265430</td>
<td>101616014</td>
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<td>iii) Others</td>
<td>73218636</td>
<td>102603126</td>
<td>iii) Poor patient A/c</td>
<td>4340102</td>
<td>1571050</td>
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<tr>
<td>iv) AIIMS Donation Accounts Credit B/A</td>
<td>836297</td>
<td>886300</td>
<td>iv) GPF</td>
<td>651197057</td>
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<tr>
<td>v) Donation (Research Section)</td>
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<td>v) Outside recoveries</td>
<td>1301236866</td>
<td>112545226</td>
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<td>vi) NPS (Credit Bank Advice)</td>
<td>162220892</td>
<td>824388504</td>
<td>vii) Deposit Work (Power Grid Corporation) HSCC</td>
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<tr>
<td>vii) NPS CNC</td>
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<td>0</td>
<td>vii) Geriatric Block (HSCC)/Geriatric</td>
<td>409000000</td>
<td>210000000</td>
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<tr>
<td>viii) Oration of Donation (Cashier)</td>
<td>1800000</td>
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<td>viii) Patient treatment A/c at AIIMS (Main)</td>
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<tr>
<td>ix) CSR (Hospital Billing)</td>
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<td>ix) FD Poor Patient Accounts</td>
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<td>x) PD Accounts</td>
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<td>x) Other misc payments</td>
<td>122413960</td>
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<td>xi) Revolving Funds</td>
<td>114519000</td>
<td>115426000</td>
<td>xi) Cochlear Implant Patient Treatment</td>
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<td>xii) AIIMS PMO Patient A/c</td>
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<td>xii) CSR (Hosp. Billing)</td>
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<td>xiii) CSRREC A/C (Hosp. Billing)</td>
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<td>xiii) PD Accounts</td>
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<td>xiv) PMAJY (Hosp. Billing)</td>
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<td>xiv) Revolving Funds</td>
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<td>i) Funds Received</td>
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<td>xv) AIIMS PMO Patient A/c</td>
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<td>ii) Refund received against claim</td>
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<td>xvii) Kayakalp</td>
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<td>xv) CSR</td>
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<td>xviii) PMAJY (Hosp. Billing)</td>
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<tr>
<td>xx) Custome Duty Accounts</td>
<td>259348451</td>
<td>132410268</td>
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<tr>
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<tr>
<td>Custom Duty Accounts</td>
<td>311407003</td>
<td>119483246</td>
<td>xx) FD (Endowment Fund)</td>
<td>50000000</td>
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<td>xxii) FD (Research Donation A/c</td>
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<td></td>
<td></td>
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<td>xxiii) AIIMS Jodhpur</td>
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<td>41000000</td>
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<tr>
<td>FD</td>
<td>3025000000</td>
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<td>xxiv) FD</td>
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<td>FD Matured (Endowment Fund)</td>
<td>49500000</td>
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<td>xxv) FD Res. Sec.</td>
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</table>

| NPS ACCOUNTS             |           |           |                           |           |           |
| i) Payment Legacy data   | 59712634  | 538289755 |                           |           |           |
| ii) Bank charges         | 124       |           |                           |           |           |
| Investment made          | 0         | 20000000  |                           |           |           |
| FDR (Kalmal Bucksee)     | 0         | 0         |                           |           |           |
| Endowment fund           | 0         | 0         |                           |           |           |
| Investment (FD)          | 0         | 0         |                           |           |           |
| Bank charges             | 0         | 0         |                           |           |           |
| Expenditure              | 0         | 0         |                           |           |           |

| Closing Balances         |           |           |                           |           |           |
| i) Cash in Hand          | 918650    | 931150    |                           |           |           |
| ii) Bank Balances        |           |           |                           |           |           |
| a) In Current accounts   | 2024883864| 3754443504|                           |           |           |
| b) In FDRs               | 2000000000| 0         |                           |           |           |
| c) In Deposit accounts   | 18489924  | 15315377  |                           |           |           |

Total 73698033419 40422606802  Total 73698033419 40422606802

Accounts Officer
Financial Advisor
Sr. Financial Advisor

Director
<table>
<thead>
<tr>
<th>Schedule 20 A</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Salaries and Wages</td>
<td>819,542,0979</td>
<td>728,689,7250</td>
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<tr>
<td>b) Traveling Allowance (T.A)</td>
<td>391,205,842</td>
<td>365,008,67</td>
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<tr>
<td>c) Leave Salary Pension Contribution</td>
<td>3,428,38</td>
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<tr>
<td>d) Expenses on Employee's &quot;Retirement and Terminal Benefits&quot;</td>
<td>199,238,959</td>
<td>137,720,636</td>
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<tr>
<td>e) Deposit Linked Insurance Scheme</td>
<td>12,000</td>
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<tr>
<td>f) Others</td>
<td>0</td>
<td>0</td>
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<tr>
<td>g) New Pension Scheme</td>
<td>392,291,689</td>
<td>0</td>
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<tr>
<td>h) Deposit to National Securities Depository Ltd</td>
<td>194,581,730</td>
<td>197,709,559</td>
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<tr>
<td>i) Less Receipts (NPS) from the employees</td>
<td>21,597,0432</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,042,818,391</td>
<td>891,348,1435</td>
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</table>
### ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NEW DELHI

SCHEDULES FORMING PART OF RECEIPTS AND PAYMENTS FOR THE
OTHERS ADMINISTRATIVE EXPENSES

<table>
<thead>
<tr>
<th>Scheduled 21A</th>
<th>2018-19</th>
<th>2017-18</th>
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<tbody>
<tr>
<td>a) Repairs and maintenance</td>
<td>733720168</td>
<td>947619882</td>
</tr>
<tr>
<td>b) Travelling and conveyance Expenses</td>
<td>73843579</td>
<td>76450853</td>
</tr>
<tr>
<td>c) Contingency office</td>
<td>1164840879</td>
<td>127208036</td>
</tr>
<tr>
<td>d) Electricity and power</td>
<td>685677911</td>
<td>585417220</td>
</tr>
<tr>
<td>e) Water charges</td>
<td>50139349</td>
<td>46003652</td>
</tr>
<tr>
<td>d) Others (Bank Charges)</td>
<td>362484</td>
<td>2384</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2708584370</strong></td>
<td><strong>1782702027</strong></td>
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</table>

Accounts Officer

Financial Advisor
## Receipts and Payments accounts of General Provident Funds for the Financial year 2018-19

<table>
<thead>
<tr>
<th></th>
<th>18-19</th>
<th>17-18</th>
<th>Payments</th>
<th>18-19</th>
<th>17-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Balance</td>
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<td>112743375.00</td>
<td>GPF Withdrawal</td>
<td>1180062261.81</td>
<td>726435470.00</td>
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<tr>
<td>Time barred cheque to A/c</td>
<td>0</td>
<td>2805014.00</td>
<td>Investment during the year</td>
<td>2615650390.60</td>
<td>848405019.00</td>
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<tr>
<td>Subscription/Receipts</td>
<td>1268799781.00</td>
<td>835286256.00</td>
<td>Bank Charges</td>
<td>4425.00</td>
<td>2645.00</td>
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<tr>
<td>Interest</td>
<td>244739500.00</td>
<td>251294050.00</td>
<td>Closing Balance</td>
<td>179370129.13</td>
<td>198612429.00</td>
</tr>
<tr>
<td>Investment Maturity</td>
<td>2262935496.79</td>
<td>571326868.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3975087206.54</td>
<td>1773455563.00</td>
<td><strong>Total</strong></td>
<td>3975087206.54</td>
<td>1773455563.00</td>
</tr>
</tbody>
</table>

## Income and Expenditure Accounts for the Financial Year 2018-19

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>18-19</th>
<th>17-18</th>
<th>Income</th>
<th>18-19</th>
<th>17-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest on subscription</td>
<td>466488427.00</td>
<td>410574377.00</td>
<td>Interest received</td>
<td>244739500.00</td>
<td>251294050.00</td>
</tr>
<tr>
<td>Bank Charges</td>
<td>4425.00</td>
<td>2645.00</td>
<td>Excess of exp over income</td>
<td>221753352.00</td>
<td>159282972.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>466492852.00</td>
<td>410577022.00</td>
<td><strong>Total</strong></td>
<td>466492852.00</td>
<td>410577022.00</td>
</tr>
</tbody>
</table>

 Accounts Officer: [Signature]

 Financial Advisor: [Signature]
## Balance sheet of General Provident Funds of AIIMS as on 31st March 2019

(Amount in Rs.)

<table>
<thead>
<tr>
<th>Liability</th>
<th>18-19</th>
<th>17-18</th>
<th>Assets</th>
<th>18-19</th>
<th>17-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Balance (GPF)</td>
<td>5761328663.00</td>
<td></td>
<td>Investment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add: GPF Subscriptions</td>
<td>1268799781.00</td>
<td></td>
<td>Opening Balance</td>
<td>5440511113.00</td>
<td></td>
</tr>
<tr>
<td>Add: GPF Interest credited</td>
<td>466488427.00</td>
<td></td>
<td>Addition during the year</td>
<td>2615650390.68</td>
<td></td>
</tr>
<tr>
<td>Add: Time barred Ch to A/c</td>
<td>0</td>
<td></td>
<td>Less: Maturity during the year</td>
<td>2262935496.79</td>
<td>5793226007.00</td>
</tr>
<tr>
<td>Less: Withdrawal</td>
<td>1180062261.81</td>
<td>6316554609.00</td>
<td>5761328663.00</td>
<td>5440511113.00</td>
<td></td>
</tr>
<tr>
<td>Surplus</td>
<td></td>
<td>179370129.13</td>
<td>Bank Balance</td>
<td>198612429.00</td>
<td></td>
</tr>
<tr>
<td>Cumulative Excess of income over expenditure</td>
<td></td>
<td></td>
<td>O/B excess of income over exp.</td>
<td>122205121.00</td>
<td></td>
</tr>
<tr>
<td>Opening Balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: Excess of Exp over income during the year</td>
<td></td>
<td>221753352.00</td>
<td>Add. Excess exp. Over income during the year</td>
<td>343958473.00</td>
<td>122205121.00</td>
</tr>
<tr>
<td>Total</td>
<td>6316554609.00</td>
<td>5761328663.00</td>
<td>Total</td>
<td>6316554609.00</td>
<td>5761328663.00</td>
</tr>
</tbody>
</table>

Accounts Officer

Financial Advisor
Accounting Policies and Notes forming part of Accounts

1. The Activities of the Institute is mainly funded from the grants from Government of India and Accounts of the Institute are prepared in accordance with Generally accepted Accounting principles.

2. The accounts have been prepared on cash basis i.e. on actual Receipt and Payments basis.

3. No depreciation on Assets i.e. Machinery & Equipments, vehicles, buildings etc have been provided in the accounts and assets are carried out at the historical cost. Assets at the time of condemnation on completion of useful life are removed from the Assets as well as from the capital corpus.

4. No provisions for liability of Gratuity, pension and leave encashment etc have been made in the accounts as the grants from the Government of India are received for actual expenditure. The payment of Gratuity, pension and leave encashment etc are accounted in the accounts only at the time of actual payments.

5. No closing stock of Store and supplies at the end of accounting period is incorporated in the accounts as all expenditure on stores and supplies are treated as final expenditure at the time of payments in the accounts.


7. All Assets (Machinery & Equipments, vehicles etc) funded from the grants for the Research projects are used for the activities of the Research projects and are not included in the assets of the Institute. Such Assets (Machinery & Equipments, vehicles etc,) are either returned to the funding agencies or used in the Departments after the completions of the projects as per sanction of the funding agencies.

8. A statement showing the expenditure made by various Project Investigators for Research Projects during 2018-19 and balance amount lying with the Institute as on 31-03-2019 is attached with the Accounts.

9. Since, the centre are administered separately their final accounts are also maintained separate. However, the amount of grant released to their Centers are reflected in the final accounts of AIIMS Main. Accounts of various Centre’s of the Institute as on 31-03-2019 are annexed with the AIIMS Main Accounts.

10. Advances for treatment under the packages were treated as revenue and expenditure incurred against those treatments was shown in expenditure. During the current year advances received against the packages for treatment are shown under the revolving fund and expenditure incurred against the revolving fund. Balances in the revolving fund shown as liability. The impact of these changes of accounting policy is not assessable and not significant.

11. Accounts for the year ended 31-03-2019 are prepared in the new format and grouping and regrouping and classification, wherever necessary have been changed/adopted for better presentation.

12. Assets of the Institute in every Departments/Centre’s are physically verified once in year by the faculty/officer nominated for the purpose and no significant/major deviations have been reported.

13. Stores and supplies of the Institute in every Departments/Centre’s are physically verified once in year by the faculty/officer nominated for the purpose and no significant/major deviations have been reported.

14. Institute is maintaining various Revolving funds for test/procedures required for patients care and same are included in the concerned Accounts of the Institute.

15. Donations/receipts from various sources without any attached conditions are treated as income of the concerned centre or of Institute as the case may be.

16. All Accounting policies and Notes Forming Part of Accounts listed above are also applied in the preparation of the Accounts of the Centers also.

Accounts Officer

Financial Advisor

Sr. Financial Advisor

Director
### NATIONAL ILLNES ASSISTANCE FUND (NIAF) : 2018-19

<table>
<thead>
<tr>
<th>S. No.</th>
<th>RECEIPTS</th>
<th>RS.</th>
<th>PAYMENT</th>
<th>RS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Opening balance as on 1.04.2018</td>
<td>396068732.53</td>
<td>Payment made during the year 2018-19</td>
<td>222075568.00</td>
</tr>
<tr>
<td>2.</td>
<td>Grant received during the year 2018-19</td>
<td>212126230.00</td>
<td>Bank clearing charges debited by the bank during the year</td>
<td>00.00</td>
</tr>
<tr>
<td>3.</td>
<td>Interest received from Bank during the year 2018-19</td>
<td>16604483.00</td>
<td>Interest earned transferred to AIIMS Main A/c</td>
<td>13251084.00</td>
</tr>
<tr>
<td>4.</td>
<td>Closing balance as on 31.03.19</td>
<td>Total 624799445.53</td>
<td>Total 624799445.53</td>
<td></td>
</tr>
</tbody>
</table>

**ACCOUNTS OFFICER**

HOSPITAL BILLING SECTION

---

### AIIMS DELHI AROGYA KOSH

**A/C NO. – 33477690609**

**Financial Year – 2018-2019**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>RECEIPT</th>
<th>RS.</th>
<th>PAYMENT</th>
<th>RS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Opening balance as on 01.04.2018</td>
<td>18153071.00</td>
<td>Payment made during the year 2018-19</td>
<td>5910015.00</td>
</tr>
<tr>
<td>2.</td>
<td>Grant received during the year 2018-19</td>
<td>6005426.00</td>
<td>Bank clearing charges debited by the bank</td>
<td>649.00</td>
</tr>
<tr>
<td>3.</td>
<td>Interest received from bank</td>
<td>Nil</td>
<td>Closing balance as on 31.03.2019</td>
<td>18247833.00</td>
</tr>
<tr>
<td>4.</td>
<td>Total</td>
<td>24158497.00</td>
<td>Total</td>
<td>24158497.00</td>
</tr>
</tbody>
</table>

**ACCOUNTS OFFICER**

AIIMS 2018-19 / 929
## Cardio-Thoracic & Neuro Sciences Centre (Consolidate)

### Receipts and Payments for the year ended 31.03.2019

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Opening balances</strong></td>
<td></td>
<td></td>
<td><strong>I. Expenses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) cash in Hand</td>
<td>66,000</td>
<td>66,000</td>
<td>a) Establishment Expenses (corresponding to schedule 21)</td>
<td>2,726,562,030</td>
<td>2,515,368,878</td>
</tr>
<tr>
<td>b) Bank Balances</td>
<td></td>
<td></td>
<td>b) Administrative Expenses (corresponding to Schedule 22)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) In current Account</td>
<td></td>
<td></td>
<td>c) Material &amp; Supply (Corresponding to Schedule 23)</td>
<td>462,847,016</td>
<td>356,941,872</td>
</tr>
<tr>
<td>CNC Main</td>
<td>245,439,239</td>
<td>161,723,947</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gamma Knife</td>
<td>89,945,198</td>
<td>40,477,909</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angio Pts. A/c</td>
<td>38,587,244</td>
<td>15,438,301</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuro Surgery Pts. A/c</td>
<td>52,893,371</td>
<td>37,151,884</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aiims Neuro Sciences Poor Pts. A/c</td>
<td>257,251</td>
<td>207,900</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) In Deposit Account</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) In Savings Account</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Fixed Deposits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Deposits (Gamma Knife)</td>
<td>240,000,000</td>
<td>240,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Deposits (Angio Pts. A/c)</td>
<td>109,800,000</td>
<td>109,800,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Deposits (Neuro Surgery Pts. A/c)</td>
<td>31,800,000</td>
<td>31,800,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Deposits (C.T. Pts. A/c)</td>
<td>50,000,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>II. Grant Received</strong></td>
<td></td>
<td></td>
<td><strong>II. Payments made against funds for various Projects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) From Government of India--Through Aiims Main</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital (Assets New)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Grant in Aid (Plan)</td>
<td>338,885,000</td>
<td>211,232,218</td>
<td>Grant Refund to AIIMS Main</td>
<td>20,000,000</td>
<td></td>
</tr>
<tr>
<td>Revenue General</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Grant in Aid- (Salary)</td>
<td>2,728,000,000</td>
<td>2,515,366,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) Grant in Aid- (General)</td>
<td>764,000,000</td>
<td>650,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) Grant in Aid- (SAP)- CTC</td>
<td>-</td>
<td>50,000,000</td>
<td>(iv) Grant in Aid- (SAP)- CTC</td>
<td>1,672,177</td>
<td>404,400</td>
</tr>
<tr>
<td>(v) Grant in Aid- (SAP)- NSC</td>
<td>-</td>
<td>50,000,000</td>
<td>(v) Grant in Aid- (SAP)- NSC</td>
<td>1,691,074</td>
<td>404,400</td>
</tr>
<tr>
<td>b) From State Government</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>-------------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>c) From Other Sources (details)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Grant for capital and Revenue expenditure to shown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. Income on Investments From</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Earmarked Funds/Endowment funds</td>
<td>-</td>
<td>-</td>
<td>a) Out of Earmarked/Endowment funds</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Revolving Fund</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Blood Test/Lab Test</td>
<td>11,863,700</td>
<td>11,065,090</td>
<td>i) Blood Test/Lab Test</td>
<td>428,475</td>
<td>4,705,210</td>
</tr>
<tr>
<td>ii) Cardiac Test</td>
<td>5,105,750</td>
<td>5,142,760</td>
<td>ii) Cardiac Test</td>
<td>855,205</td>
<td>242,738</td>
</tr>
<tr>
<td>iii) Stress Thallium</td>
<td>2,488,000</td>
<td>2,579,000</td>
<td>iii) Stress Thallium</td>
<td>5,931,121</td>
<td>2,272,833</td>
</tr>
<tr>
<td>IV) Neurology Patients Fund</td>
<td>10,384,063</td>
<td>11,814,279</td>
<td>IV) Neurology Patients Fund</td>
<td>17,631,067</td>
<td>8,705,468</td>
</tr>
<tr>
<td>MRI Charges</td>
<td>3,479,750</td>
<td>3,583,500</td>
<td>MRI Charges</td>
<td>3,479,750</td>
<td>3,583,500</td>
</tr>
<tr>
<td>Stem Cell</td>
<td>742,000</td>
<td>74,000</td>
<td>Stem Cell</td>
<td>742,000</td>
<td>74,000</td>
</tr>
<tr>
<td>Gamma Knife A/c</td>
<td>44,001,710</td>
<td>43081073</td>
<td>Gamma Knife A/c</td>
<td>2629980</td>
<td>3,264,881</td>
</tr>
<tr>
<td>NS Pts. A/c</td>
<td>152,185,426</td>
<td>135490483</td>
<td>NS Pts. A/c</td>
<td>144345943</td>
<td>121,934,711</td>
</tr>
<tr>
<td>c) Own Funds (Other Investments)</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IV. Interest Received</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Bank Deposits (CNC Main)</td>
<td>29,093,970</td>
<td>10771488</td>
<td>Work-in-Progress</td>
<td>88,820,261</td>
<td>176,119,651</td>
</tr>
<tr>
<td>On Bank Deposits (Gamma Knife)</td>
<td>16,746,881</td>
<td>9651831</td>
<td>a) Purchase of Fixed Assets</td>
<td>88,820,261</td>
<td>176,119,651</td>
</tr>
<tr>
<td>On Bank Deposits (Angio Pts. A/c)</td>
<td>5,538,841</td>
<td>6890294</td>
<td>b) Expenditure on Capital Work-in-progress</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>On Bank Deposits (Neuro Surgery Pts. A/c)</td>
<td>1,113,232</td>
<td>2192180</td>
<td>c) Letter of Credit (M&amp;E)</td>
<td>151,064,739</td>
<td>106,634,607</td>
</tr>
<tr>
<td>On Bank Deposits (C.T. Pts. A/c)</td>
<td>2,677,133</td>
<td>0</td>
<td>V. Refund of surplus money/Loans</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) loans And Advances etc.</td>
<td>1,981,442</td>
<td>1589524</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>c) To other providers of funds</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V. Other Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous Receipt</td>
<td>1,993,616</td>
<td>1955300</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hospital Receipt (CNC Main)</td>
<td>69,123,455</td>
<td>61442379</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bank Charges (Gamma Knife)</td>
<td>1,357</td>
<td>734</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bank Charges (Angio Pts. A/c)</td>
<td>3,540</td>
<td>2,999</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bank Charges (Neuro Surgery Pts. A/c)</td>
<td>3,277</td>
<td>6,465</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bank Charges (C.T. Pts. A/c)</td>
<td>4,543</td>
<td>105,412</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bank Charges (Aims Neuro Sciences Poor)</td>
<td>649</td>
<td>649</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VI. Amount Borrowed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VII. Any Other Receipts (Give Details)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Donation</td>
<td>325,000</td>
<td>442530</td>
<td>Donation/Grant</td>
<td>249,819</td>
<td>250,264</td>
</tr>
<tr>
<td>b) Earnest Money Deposits</td>
<td>7,115,000</td>
<td>4804000</td>
<td>Earnest Money Deposits</td>
<td>2,878,995</td>
<td>1,810,820</td>
</tr>
<tr>
<td>--------</td>
<td>------------------</td>
<td>---------------------</td>
<td>-----------------------------</td>
<td>--------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>2018-19</td>
<td>18,667,362</td>
<td>141,599,967</td>
<td>13,457,689</td>
<td>94,564,400</td>
<td>91,716,281</td>
</tr>
<tr>
<td>2017-18</td>
<td>18,650,280</td>
<td>141,959,567</td>
<td>13,479,689</td>
<td>94,564,416</td>
<td>91,186,015</td>
</tr>
</tbody>
</table>

**Receipts**

1. **AIIMS Recoveries**
   - 2018-19: 18,667,362
   - 2017-18: 18,650,280

2. **Outside Recoveries**
   - 2018-19: 141,599,967
   - 2017-18: 141,959,567

3. **GPF Subscription & Advance**
   - 2018-19: 13,457,689
   - 2017-18: 13,479,689

4. **NPS Recovery**
   - 2018-19: 94,564,400
   - 2017-18: 94,564,416

**Loan, Advances & Other Assets/Recovery**

- **Computer Advance Recovery**
  - 2018-19: 505,700
  - 2017-18: 500,000

- **Car/Scooter Advance Recovery**
  - 2018-19: 279,600
  - 2017-18: 275,500

- **House Building Advance Recovery**
  - 2018-19: 525,350
  - 2017-18: 525,350

- **Festival Advance Recovery**
  - 2018-19: 8,100
  - 2017-18: 8,100

- **Recovery (Engg. Works)**
  - 2018-19: 2,925
  - 2017-18: 2,925

- **Patient Treatment (CGHS)**
  - 2018-19: 2,981,932
  - 2017-18: 2,981,932

- **Return RTGS**
  - 2018-19: 2,074,481
  - 2017-18: 2,074,481

- **Grant Transfer to (Angio Pts. A/c for Exemption/BPL)**
  - 2018-19: 24,626,413
  - 2017-18: 24,626,413

- **Grant Transfer to (CT Pts. A/c for Exemption/BPL)**
  - 2018-19: 18,411,871
  - 2017-18: 18,411,871

- **Grant Transfer to (Neuro Surgery Pts. A/c for Exemption/BPL)**
  - 2018-19: 545,227
  - 2017-18: 545,227

- **TDR (CNC Main A/c)**
  - 2018-19: 50,000,000
  - 2017-18: 50,000,000

**Payments**

- **Employee Recovery**
  - 2018-19: 18,667,362
  - 2017-18: 18,650,280

- **Outside Recoveries**
  - 2018-19: 141,599,967
  - 2017-18: 141,959,567

- **GPF Subscription & Advance**
  - 2018-19: 13,457,689
  - 2017-18: 13,479,689

- **NPS Recovery**
  - 2018-19: 94,564,400
  - 2017-18: 94,564,416

**Loan, Advances & Other Assets/Recovery**

- **Recovery (Engg. Works)**
  - 2018-19: 2,925
  - 2017-18: 2,925

- **Patient Treatment (CGHS)**
  - 2018-19: 2,981,932
  - 2017-18: 2,981,932

- **Return RTGS**
  - 2018-19: 2,074,481
  - 2017-18: 2,074,481

- **Grant Transfer to (Angio Pts. A/c for Exemption/BPL)**
  - 2018-19: 24,626,413
  - 2017-18: 24,626,413

- **Grant Transfer to (CT Pts. A/c for Exemption/BPL)**
  - 2018-19: 18,411,871
  - 2017-18: 18,411,871

- **Grant Transfer to (Neuro Surgery Pts. A/c for Exemption/BPL)**
  - 2018-19: 545,227
  - 2017-18: 545,227

- **TDR (CNC Main A/c)**
  - 2018-19: 50,000,000
  - 2017-18: 50,000,000

**Bank Balances**

- **In current Account (CNC Main)**
  - 2018-19: 338,844,328
  - 2017-18: 245,439,239

- **Gamma Knife**
  - 2018-19: 28,062,452
  - 2017-18: 89,945,198

- **Angio Pts. A/c**
  - 2018-19: 15,338,949
  - 2017-18: 38,587,244

- **CT Pts. A/c**
  - 2018-19: 46,015,445
  - 2017-18: 91,101,096

- **Aiims Neuro Sciences Poor Pts. A/c**
  - 2017-18: 257,251

**Closing Balances**

- **Cash in hand**
  - 2018-19: 66,000
  - 2017-18: 66,000

- **Bank Balances**
  - **In current Account:**
    - 2018-19: 338,844,328
    - 2017-18: 245,439,239
  - **In deposit accounts:**
    - 2018-19: 338,844,328
    - 2017-18: 245,439,239
  - **In saving accounts:**
    - 2018-19: 338,844,328
    - 2017-18: 245,439,239
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>c) Fixed Deposits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Deposits (Gamma Knife)</td>
<td>360,000,000</td>
<td>240,000,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Deposits (Angio Pts. A/c)</td>
<td>79,800,000</td>
<td>109,800,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Deposits (Neuro Surgery Pts. A/c)</td>
<td>31,800,000</td>
<td>31,800,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Deposits (CT Pts. A/c)</td>
<td>80,000,000</td>
<td>50,000,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6,542,023,997</td>
<td>5,730,487,640</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**F & CAO, CNC**

CHIEF, CTC

CHIEF, NSC
# Cardio-Thoracic & Neuro Sciences Centre (Consolidate)

**Balance Sheet as at 31.03.2019**

(Amount in Rs.)

<table>
<thead>
<tr>
<th>CORPUS/CAPITAL FUND AND LIABILITIES</th>
<th>Schedule</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corpus/Capital Fund</td>
<td>1</td>
<td>6,721,192,017</td>
<td>6,402,307,017</td>
</tr>
<tr>
<td>Reserves and Surplus</td>
<td>2</td>
<td>68,515,493</td>
<td>6,960,654</td>
</tr>
<tr>
<td>Earmarked/ Endowment Funds</td>
<td>3</td>
<td>99,050,549</td>
<td>102,338,619</td>
</tr>
<tr>
<td>Revolving Funds</td>
<td>4</td>
<td>778,954,058</td>
<td>798,407,127</td>
</tr>
<tr>
<td>Secured Loans and Borrowings</td>
<td>5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Unsecured Loans and Borrowings</td>
<td>6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Deferred Credit Liabilities</td>
<td>7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Current Liabilities and Provisions</td>
<td>8</td>
<td>61,674,526</td>
<td>56,485,722</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>7,729,386,643</td>
<td>7,366,499,139</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>Schedule</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Assets</td>
<td>9</td>
<td>6,230,814,067</td>
<td>6,005,770,555</td>
</tr>
<tr>
<td>Investments-From Earmarked/Endowment Funds</td>
<td>10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Investment-Others</td>
<td>11</td>
<td>551,600,000</td>
<td>431,600,000</td>
</tr>
<tr>
<td>Current Assets, Loans, Advances Etc.</td>
<td>12</td>
<td>946,972,576</td>
<td>929,128,584</td>
</tr>
<tr>
<td>Miscellaneous Expenditure</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(To the extent not written off or adjusted)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance of excess of expenditure over income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>7,729,386,643</td>
<td>7,366,499,139</td>
</tr>
</tbody>
</table>

Significant Accounting Policies                                         25

Contingent Liabilities and Notes on Accounts                             26

F& CAO, CNC

CHIEF, CTC

CHIEF, NSC
## Cardio-Thoracic & Neuro Sciences Centre
### Income and Expenditure Account for the year ending on 31.03.2019

<table>
<thead>
<tr>
<th>INCOME</th>
<th>Schedule</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from Sales/services</td>
<td>13</td>
<td>70,885,415</td>
<td>62,033,065</td>
</tr>
<tr>
<td>Grants/Subsidies</td>
<td>14</td>
<td>3,492,000,000</td>
<td>3,090,652,978</td>
</tr>
<tr>
<td>Fees/Subscriptions</td>
<td>15</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Income from Investments</td>
<td>16</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Income from Royalty, publications etc.</td>
<td>17</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Interest Earned</td>
<td>18</td>
<td>57,151,499</td>
<td>31,095,317</td>
</tr>
<tr>
<td>Other Income</td>
<td>19</td>
<td>1,993,616</td>
<td>1,955,300</td>
</tr>
<tr>
<td>Increase/(decrease) of Finished goods and works-in-progress</td>
<td>20</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td></td>
<td><strong>3,622,030,530</strong></td>
<td><strong>3,185,736,660</strong></td>
</tr>
</tbody>
</table>

| EXPENDITURE                                 |          | **2,726,562,030** | **2,515,368,878** |
| Establishment Expenses                      | 21       | 2,726,562,030     | 2,515,368,878     |
| Other Administrative Expenses etc.          | 22       | 368,053,449       | 239,497,294       |
| Adjustment of Advances                      | 22 (A)  | 2,998,292         | -               |
| Material & Supply                           | 23       | 462,847,016       | 356,941,872       |
| Expenditure on Grants, Subsidies Etc.       | 24       | -               | -               |
| Interest & Finance Expenses                 | 25       | 14,903           | 118,401          |
| Depreciation (Net Total at the year-end-corresponding to Schedule 11) | 26 | - | - |
| **TOTAL (B)**                               |          | **3,560,475,691** | **3,111,926,445** |

| Balance being excess of Income over Expenditure (A-B) |          | 61,554,839       | 73,810,215       |
| Transfer to Special Reserve (Specify)              |          | -               | -               |
| Transfer to/from General Reserve                  |          | -               | -               |
| **Balance being surplus/(deficit) carried to corpus/capital fund** |          | 61,554,839       | 73,810,215       |

Significant Accounting Policies
Contingent Liabilities and Notes on Accounts

---

F& CAO, CNC

CHIEF, CTC

CHIEF, NSC
## Cardio-Thoracic & Neuro Sciences Centre

Schedules forming part of the Balance Sheet as at 31.03.2019

### Schedule 1 - Corpus/ Capital Funds

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance as at the beginning of the year (CNC Main)</td>
<td>6,350,915,314</td>
<td>-</td>
</tr>
<tr>
<td>Add: Contributions towards Corpus/Capital Fund (Through AIIMS Main)</td>
<td>33,88,85,000</td>
<td>318,885,000</td>
</tr>
<tr>
<td>Less: Refund to AIIMS Main</td>
<td>2,00,00,000</td>
<td></td>
</tr>
<tr>
<td>Add: Corpus/Capital Created out of Donation</td>
<td>51,391,703</td>
<td>51,391,703</td>
</tr>
<tr>
<td><strong>Add/Deduct: Balance of net income/(expenditure) transferred from the Income and Expenditure Account</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Balance as at the end of the year</strong></td>
<td>6,721,192,017</td>
<td>6,402,307,017</td>
</tr>
</tbody>
</table>

### Schedule 2 - Reserves and Surplus

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance as at the beginning of the year</td>
<td>6,960,654</td>
<td>6,960,654</td>
</tr>
<tr>
<td>Add: Additions during the year</td>
<td>61,554,839</td>
<td></td>
</tr>
<tr>
<td><strong>2. Revaluation Reserves</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Balance as at the beginning of the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Add: Additions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Less: Deductions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>3. Special Reserve</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Balance as at the beginning of the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Add: Additions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Less: Deductions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>4. General Reserve</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Balance as at the beginning of the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Add: Additions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Less: Deductions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>5. Excess of income over expenditure</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>68,515,493</td>
<td>6,960,654</td>
</tr>
</tbody>
</table>
### Schedule - 3 (Earmarked/Endowment Funds)

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Cardiology</th>
<th>CTVS</th>
<th>Neurology</th>
<th>Neuro-Surgery</th>
<th>Other</th>
<th>Swachhta Action Plan (SAP)</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CTC</td>
<td>NSC</td>
<td>Total</td>
<td>Total</td>
<td></td>
<td>CTC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Opening balance of the Funds</td>
<td>64,306</td>
<td>188,750</td>
<td>909,327</td>
<td>1,966,505</td>
<td>18,531</td>
<td>49,595,600</td>
<td>49,595,600</td>
<td>102,338,619</td>
</tr>
<tr>
<td>b) Additions to the Funds</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>i. Donations/grants</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ii. Income from Investments made on account of funds</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>iii. Received from patients</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>iv. Other additions (specify nature)</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL (a+b)</td>
<td>64,306</td>
<td>188,750</td>
<td>934,327</td>
<td>2,116,505</td>
<td>168,531</td>
<td>49,595,600</td>
<td>49,595,600</td>
<td>102,663,619</td>
</tr>
<tr>
<td>c) Utilization/Expenditure towards objectives of funds</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>i. Capital Expenditure</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
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<tr>
<td>Fixed Assets</td>
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<td>-</td>
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</tr>
<tr>
<td>Others</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
</tr>
<tr>
<td>TOTAL (c.i)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ii. Revenue Expenditure</td>
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<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Salaries, Wages and allowances etc.</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Rent</td>
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<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Bank Charges</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other Administrative expenses</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL c (ii)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL (c)</td>
<td>-</td>
<td>-</td>
<td>99,819</td>
<td>-</td>
<td>150,000</td>
<td>3,363,251</td>
<td>1,059,064</td>
<td>103,397,683</td>
</tr>
<tr>
<td>d) Refunds to Patients</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NET BALANCE AS AT THE YEAR-END (a+b-c-d)</td>
<td>64,306</td>
<td>188,750</td>
<td>834,508</td>
<td>2,116,505</td>
<td>18,531</td>
<td>47,904,526</td>
<td>99,090,549</td>
<td>102,338,619</td>
</tr>
<tr>
<td>Schedule - Revolving Fund</td>
<td>Current Year</td>
<td>Previous Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>---------------------------</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Opening balance of the Funds</td>
<td>29,322,275</td>
<td>24,244,725</td>
<td>3,641,791</td>
<td>74,000</td>
<td>41,138,051</td>
<td>146,206,938</td>
<td>320,294,101</td>
<td>144,745,190</td>
</tr>
<tr>
<td>b) Additions to the Funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Received From Patients</td>
<td>11,963,700</td>
<td>5,105,750</td>
<td>2,488,000</td>
<td>3,479,750</td>
<td>742,000</td>
<td>10,384,061</td>
<td>336,404,457</td>
<td>4,001,710</td>
</tr>
<tr>
<td>ii. Grant received from AIIMS CNC (Angio Pts. A/c) for Exemption/BPL Pts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL (a+b)</td>
<td>41,385,975</td>
<td>29,350,475</td>
<td>6,129,791</td>
<td>14,712,380</td>
<td>816,000</td>
<td>41,522,162</td>
<td>342,610,585</td>
<td>35,206,321</td>
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<td>i. Capital Expenditure</td>
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<tr>
<td>Fixed Assets</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Others (Specify)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>TOTAL (c.i)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>ii. Revenue Expenditure</td>
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<tr>
<td>Material &amp; Supply</td>
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<td>146,329</td>
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<td>551,494,549</td>
<td>31,789,984</td>
<td>125,450,949</td>
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<td>Refund to Patients</td>
<td>42,944,725</td>
<td>354,162,998</td>
<td>2,629,980</td>
<td>2,45,497,725</td>
<td>144,345,943</td>
<td>32,351,207</td>
<td>123,848,267</td>
<td>20,986,794</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Others (Specify)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL (c.ii)</td>
<td>428,475</td>
<td>855,205</td>
<td>5,931,121</td>
<td>-</td>
<td>-</td>
<td>2,629,980</td>
<td>2,45,497,725</td>
<td>144,345,943</td>
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<tr>
<td>TOTAL (c)</td>
<td>428,475</td>
<td>855,205</td>
<td>5,931,121</td>
<td>-</td>
<td>-</td>
<td>2,629,980</td>
<td>2,45,497,725</td>
<td>144,345,943</td>
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<tr>
<td>Balance as at the end of the year (a+b-c)</td>
<td>40,757,500</td>
<td>28,495,270</td>
<td>198,670</td>
<td>-</td>
<td>-</td>
<td>361,665,831</td>
<td>85,961,794</td>
<td>90,347,139</td>
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## Schedule 5 - Secured Loans And Borrowings

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Capital Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. State Government (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Financial Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Other Loans (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td></td>
<td></td>
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<tr>
<td>5. Other Institutions and Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Others (specify)</td>
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<tr>
<td><strong>TOTAL</strong></td>
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</table>

**Note:** Amounts due within one year
### Schedule 6 - Unsecured Loans And Borrowings

<table>
<thead>
<tr>
<th>Financial Institution</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Capital Government</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>2. State Government (Specify)</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>3. Financial Institutions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Interest accrued and due</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>4. Banks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Other Loans (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>5. Other Institutions and Agencies</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>6. Debentures and Bonds</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>7. Others (specify)</strong></td>
<td>-</td>
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</tr>
<tr>
<td><strong>TOTAL</strong></td>
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</table>

**Note:** Amounts due within one year

### Schedule 7 - Deferred Credit Liabilities

<table>
<thead>
<tr>
<th>Financial Institution</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Acceptance secured by hypothecation of capital equipment and other assets</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Others</td>
<td>-</td>
<td>-</td>
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<tr>
<td><strong>TOTAL</strong></td>
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</table>

**Note:** Amount due within one year
### Schedule 8-Current Liabilities

<table>
<thead>
<tr>
<th>A. Current Liabilities</th>
<th>Current Year</th>
<th>Previous Year</th>
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</thead>
<tbody>
<tr>
<td>1. Acceptances</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Sundry Creditors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) For Goods</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Others</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Advances Received</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Interest accrued but not due on</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Secured Loans/borrowings</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Unsecured Loans/borrowings</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Statutory Liabilities</td>
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<td></td>
</tr>
<tr>
<td>a) Overdue</td>
<td>1,252,320</td>
<td>349,521</td>
</tr>
<tr>
<td>b) Others</td>
<td>-</td>
<td>-</td>
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<tr>
<td>6. Other Current Liabilities</td>
<td>1,252,320</td>
<td>349,521</td>
</tr>
<tr>
<td>7. EMD</td>
<td>60,092,789</td>
<td>55,856,784</td>
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<tr>
<td>8. Imprest</td>
<td>20,000</td>
<td>20,000</td>
</tr>
<tr>
<td>9. AIIMS Neuro Sciences Poor Pts. A/c</td>
<td>309,417</td>
<td>259,417</td>
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<tr>
<td><strong>TOTAL (A)</strong></td>
<td>61,674,526</td>
<td>56,485,722</td>
</tr>
</tbody>
</table>

| B. Provisions                                                                         |              |               |
| 1. For Taxation                                                                       | -            | -             |
| 2. Gratuity                                                                           | -            | -             |
| 3. Superannuation/ Pension                                                            | -            | -             |
| 4. Accumulated Leave Encashment                                                      | -            | -             |
| 5. Trade Warranties/ Claims                                                          | -            | -             |
| 6. Accumulated Depreciation                                                          | -            | -             |
| 7. Others                                                                             | -            | -             |
| **TOTAL (B)**                                                                         | -            | -             |
| **TOTAL (A)+(B)**                                                                     | 61,674,526   | 56,485,722    |
## SCHEDULE 9 - FIXED ASSETS

<table>
<thead>
<tr>
<th>Particulars</th>
<th>As at the beginning of the year</th>
<th>Additions during the year</th>
<th>Deductions during the year</th>
<th>Additions during the year (Letter of Credit)</th>
<th>Additions during the year (PDA)</th>
<th>Additions during the year (Custom Duty)</th>
<th>Cost/Valuation at the year-end</th>
<th>As at the beginning of the year</th>
<th>As at the current year-end</th>
<th>As at the previous year-end</th>
</tr>
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<tbody>
<tr>
<td><strong>FIXED ASSETS</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Freehold</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
<td></td>
</tr>
<tr>
<td>b) Leasehold</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
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</tr>
<tr>
<td>BUILDINGS</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>a) On Freehold Land</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
<td></td>
</tr>
<tr>
<td>b) On Leasehold Land</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
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</tr>
<tr>
<td>c) Ownership Flats/Premises</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
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</tr>
<tr>
<td>d) Superstructures on Land not belonging to the entity</td>
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<td>-</td>
<td>-</td>
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<td>-</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
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<tr>
<td><strong>INTANGIBLE FIXED ASSETS</strong></td>
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</tr>
<tr>
<td>a) Software</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
<td>5,362,203,310</td>
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<tr>
<td><strong>PLANT, MACHINERY &amp; EQUIPMENT</strong></td>
<td>5,362,203,310</td>
<td>84,391,536</td>
<td>228,770</td>
<td>20,636,301</td>
<td>5,812,818,097</td>
<td>5,694,458,784</td>
<td>6,582,818,097</td>
<td>6,582,818,097</td>
<td>5,362,203,310</td>
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</tr>
<tr>
<td>Spare &amp; Accessories (CTC)</td>
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<td>65,573,564</td>
<td>65,573,564</td>
<td>65,573,564</td>
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<tr>
<td>Letter of Credit Spare &amp; Accessories (NSC)</td>
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<td>11,918,584</td>
<td>11,918,584</td>
<td>11,918,584</td>
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<tr>
<td>Letter of Credit Spare &amp; Accessories (CTC)</td>
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<td>556,416</td>
<td>556,416</td>
<td>556,416</td>
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<td><strong>VEHICLES</strong></td>
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<td>4,381,989</td>
<td>4,381,989</td>
<td>4,381,989</td>
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<td><strong>FURNITURE, FIXTURES</strong></td>
<td>6,749,181</td>
<td>1,740,991</td>
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<td>8,490,172</td>
<td>8,490,172</td>
<td>8,490,172</td>
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<td><strong>COMPUTER/PERIPHERALS</strong></td>
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<td>10,140,482</td>
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<td>10,140,482</td>
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</tr>
<tr>
<td><strong>TUBE well &amp; Water-supply</strong></td>
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<td></td>
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<td>-</td>
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<td><strong>OFFICE EQUIPMENT</strong></td>
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</tr>
<tr>
<td><strong>TOTAL OF CURRENT YEAR</strong></td>
<td>5,345,466,855</td>
<td>88,820,261</td>
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<td></td>
<td></td>
<td>5,770,510,367</td>
<td>5,770,510,367</td>
<td>5,345,466,855</td>
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</tr>
<tr>
<td><strong>CAPITAL WORK-IN-PROGRESS</strong></td>
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<td>460,303,700</td>
<td>460,303,700</td>
<td>460,303,700</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>6,005,770,555</td>
<td>88,820,261</td>
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<td>6,230,814,067</td>
<td>6,230,814,067</td>
<td>6,005,770,555</td>
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</table>

(Date to be given to cost of assets on hire purchase basis included above)
### Schedule 10 - Investments from Earmarked/Endowment Funds

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Government Securities</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Other approved Securities</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Shares</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6. Others (to be specified)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>-</td>
<td>-</td>
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</table>

### Schedule 11 - Investments Others

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Government Securities</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Other approved Securities</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Shares</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6. Others (to be specified)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>i. Fixed Deposit (Gamma Knife)</td>
<td>360,000,000</td>
<td>240,000,000</td>
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<tr>
<td>ii. Fixed Deposit (Angio Pts. A/c)</td>
<td>79,800,000</td>
<td>109,800,000</td>
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<tr>
<td>iii. Fixed Deposit (Neuro Surgery Pts. A/c)</td>
<td>31,800,000</td>
<td>31,800,000</td>
</tr>
<tr>
<td>iv. Fixed Deposit (C T Pts. A/c)</td>
<td>80,000,000</td>
<td>50,000,000.00</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>551,600,000.00</td>
<td>431,600,000.00</td>
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</table>
### Schedule 12-Current Assets, Loans, Advances Etc.

<table>
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<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Current Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Inventories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Stores and Spares</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Loose Tools</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>c) Stock in trade</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Finished Goods</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Work-in-progress</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Raw Materials</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Sundry Debtors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Debts outstanding for a period exceeding six months</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Others</td>
<td>3,245,441</td>
<td>3,245,441</td>
</tr>
<tr>
<td>3. Cash balances in hand (Including cheques/drafts and imprest)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Imprest</td>
<td>66,000</td>
<td>66,000</td>
</tr>
<tr>
<td>4. Bank Balances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- On Current Accounts</td>
<td>338,844,328</td>
<td>245,439,239</td>
</tr>
<tr>
<td>Gamma Knife</td>
<td>28,062,452</td>
<td>89,945,198</td>
</tr>
<tr>
<td>Angio Pts. A/c</td>
<td>15,338,949</td>
<td>38,587,244</td>
</tr>
<tr>
<td>Neuro Surgery Pts. A/c</td>
<td>61,842,809</td>
<td>52,893,371</td>
</tr>
<tr>
<td>Aiims Neuro Sciences Poor Pts. A/c</td>
<td>306,602</td>
<td>257,251</td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- On Current Accounts</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- On Deposit Accounts</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- On Savings Accounts</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Post Office - Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL (A)</td>
<td>493,722,027</td>
<td>521,534,841</td>
</tr>
<tr>
<td>B. LOANS, ADVANCES AND OTHER ASSETS</td>
<td>Current Year</td>
<td>Previous Year</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>1. Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Staff</td>
<td>6,240,560</td>
<td>2,939,535</td>
</tr>
<tr>
<td>b) Other Entities engaged in activities/objectives similar to that of the Entity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Other (Patient Treatment - CGHS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Advances and other amounts recoverable in cash or in kind or for value to be received</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Capital Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Prepayments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Temporary Contingent Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Income Accrued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Investments from Earmarked / Endowment Funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) On Investments - Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) On Loans and Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Includes income due unrealized - Rs. ......)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Claims Receivable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Letter of Credit</td>
<td>121,207,172</td>
<td>86,500,613</td>
</tr>
<tr>
<td>6. Custom Duty</td>
<td>93,383,493</td>
<td>34,019,794</td>
</tr>
<tr>
<td>7. Pre-Deposits Advance</td>
<td>300,848</td>
<td>529,618</td>
</tr>
<tr>
<td>8. TDR</td>
<td></td>
<td>50,000,000</td>
</tr>
<tr>
<td>9. Advance Against Work</td>
<td>174,596,762</td>
<td>174,596,762</td>
</tr>
<tr>
<td>10. Advance Payment DAVP</td>
<td>2,709,744</td>
<td>5,708,036</td>
</tr>
<tr>
<td>11. Mach. &amp; Equip. Trf from CT Patients A/c</td>
<td>49,025,000</td>
<td>49,025,000</td>
</tr>
<tr>
<td>12. Patient Treatment (CGHS)</td>
<td>5,786,970</td>
<td>4,274,385</td>
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<tr>
<td>TOTAL (B)</td>
<td>453,250,549</td>
<td>407,593,743</td>
</tr>
<tr>
<td>TOTAL (A)+(B)</td>
<td>946,972,576</td>
<td>929,128,584</td>
</tr>
<tr>
<td>SCHEDULE 13-INCOME FROM SALES/SERVICE</td>
<td>Current Year</td>
<td>Previous Year</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td><strong>1) Income from sales</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Sales of Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Sales of Raw Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Sales of Scraps</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2) Income from Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Labour and Processing Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Professional/Consultancy Service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Agency Commission and Brokerage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Maintenance Services (Equipment/Property)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Hospital Receipts (CNC Main)</td>
<td>69,123,455</td>
<td>61,442,379</td>
</tr>
<tr>
<td>f) Hospital Receipts (Gamma Knife)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Hospital Receipts (Angio Patients A/c)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) Hospital Receipts (C.T. Pts. A/c)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Hospital Receipts (Neuro Surgery Pts. A/c)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j) Patient Treatment CGHS</td>
<td>1,761,960</td>
<td>590,686</td>
</tr>
<tr>
<td>k) Others (Specify) Suspenec Receipt</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>70,885,415</td>
<td>62,033,065</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCHEDULE 14-GRANTS/SUBSIDIES</th>
<th>Current Year</th>
<th>Current Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Irrevocable Grant &amp; Subsidies Received)-Through AIIMS Main</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Central Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue General (Plan)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Grant in Aid- (Salary)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Grant in Aid- (General)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Grant in Aid- (General)</td>
<td>764,000,000</td>
<td>575,286,978</td>
</tr>
<tr>
<td>(ii) Grant in Aid- (Salary)</td>
<td>2,728,000,000</td>
<td>2,515,366,000</td>
</tr>
<tr>
<td>Grant in Aid (SAP)- CTC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grant in Aid (SAP)- NSC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) State Government(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Governments Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Institutions/Welfare Bodies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) International Organisations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3,492,000,000</td>
<td>3,090,652,978</td>
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</tbody>
</table>

(Amount in Rs.)
### SCHEDULE 15- FEES/SUBSCRIPTIONS

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Entrance Fees</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2) Annual Fees/Subscriptions</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3) Seminar/Program Fees</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4) Consultancy Fees</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5) Tender Fees</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note:** Accounting Policies towards each item are to be disclosed

### SCHEDULE 16- INCOME FROM INVESTMENTS

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income on Invest. Earmarked/Endowment Funds transferred to Funds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Govt. Securities</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Other Bonds/Debentures</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2) Dividends</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Shares</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) On Mutual Fund Securities</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3) Rents</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4) Other (Specify)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note:** Transferred to earmarked/endowment funds
### SCHEDULE 17- INCOME FROM ROYALTY, PUBLICATION ETC.

<table>
<thead>
<tr>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Income from Royalty</td>
<td>-</td>
</tr>
<tr>
<td>2) Income from Publications</td>
<td>-</td>
</tr>
<tr>
<td>3) Others (Specify)</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>-</td>
</tr>
</tbody>
</table>

### SCHEDULE 18- INTEREST EARNED

<table>
<thead>
<tr>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1) On Term Deposits</strong></td>
<td></td>
</tr>
<tr>
<td>a) with Schedule Banks (CNC Main)</td>
<td>29,093,970</td>
</tr>
<tr>
<td>with Schedule Banks (Gamma Knife)</td>
<td>16,746,881</td>
</tr>
<tr>
<td>with Schedule Banks (Angio Pts. A/c)</td>
<td>5,538,841</td>
</tr>
<tr>
<td>with Schedule Banks (C.T. Pts. A/c)</td>
<td>2,677,133</td>
</tr>
<tr>
<td>with Schedule Banks (Neuro Surgery Pts. A/c)</td>
<td>1,113,232</td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td>-</td>
</tr>
<tr>
<td>c) With Institutions</td>
<td>-</td>
</tr>
<tr>
<td>d) Others</td>
<td>-</td>
</tr>
<tr>
<td><strong>2) On Savings Accounts</strong></td>
<td></td>
</tr>
<tr>
<td>a) with Schedule Banks</td>
<td>-</td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td>-</td>
</tr>
<tr>
<td>c) With Institutions</td>
<td>-</td>
</tr>
<tr>
<td>d) Others</td>
<td>-</td>
</tr>
<tr>
<td><strong>3) On Loans</strong></td>
<td></td>
</tr>
<tr>
<td>a) Employee/Staff</td>
<td>1,981,442</td>
</tr>
<tr>
<td>b) Others</td>
<td>-</td>
</tr>
<tr>
<td><strong>4) Interest on Debtors and Other Receivables</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>57,151,499</td>
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</tbody>
</table>

**Note** - Tax deducted at source to be indicated.
### SCHEDULE 19 - OTHER INCOME

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Profit on Sale/disposal of Assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Owned assets</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Assets acquired out of grants, or received free of cost</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2) Export Incentives realized</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Liquid Damage</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3) Fees for Miscellaneous Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Miscellaneous Receipt</td>
<td>1,993,616</td>
<td>1,955,300</td>
</tr>
<tr>
<td>5) Lic. Fee Recovery</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,993,616</td>
<td>1,955,300</td>
</tr>
</tbody>
</table>

### SCHEDULE 20 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Closing stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finished Goods</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Work-In-Progress</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Less: Opening Stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finished Goods</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Work-In-Progress</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>NET INCREASE/(DECREASE) [a-b]</strong></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### SCHEDULE 21 - ESTABLISHMENT EXPENSES

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Salaries and Wages (Plan)</td>
<td>469,488,108</td>
<td>457,760,909</td>
</tr>
<tr>
<td>b) Salaries and Wages (Non-Plan)</td>
<td>2,162,118,642</td>
<td>1,960,558,586</td>
</tr>
<tr>
<td>c) Contribution to Provident Fund</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>d) Contribution to Other Fund - (NPS)</td>
<td>87,133,450</td>
<td>88,000,814</td>
</tr>
<tr>
<td>e) Staff Welfare Expenses</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>f) Expenses on Employees Retirement and Terminal Benefits</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>g) Travelling and Conveyance Expenses</td>
<td>7,821,830</td>
<td>9,048,569</td>
</tr>
<tr>
<td>h) Others (specify)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>2,726,562,030</td>
<td>2,515,368,878</td>
</tr>
<tr>
<td>SCHEDULE 22- OTHER ADMINISTRATIVE EXPENSES ETC.</td>
<td>Current Year</td>
<td>Previous Year</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Labour and processing expenses</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cartage and Carriage Inwards</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Office Maintenance Exp.</td>
<td>5,734,144</td>
<td>1,930,947</td>
</tr>
<tr>
<td>Delegation Fee</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Gas Charges</td>
<td>226,090</td>
<td>140,398</td>
</tr>
<tr>
<td>Vehicles Running and Maintenance</td>
<td>731,450</td>
<td>709,206</td>
</tr>
<tr>
<td>Postage, Telephone and Communication Charges</td>
<td>45,324</td>
<td>96,272</td>
</tr>
<tr>
<td>Advertisement</td>
<td>-</td>
<td>61,904</td>
</tr>
<tr>
<td>Repairs and maintenance of Building</td>
<td>42,954,315</td>
<td>47,069,551</td>
</tr>
<tr>
<td>Repairs and maintenance of Machinery</td>
<td>17,107,937</td>
<td>6,626,675</td>
</tr>
<tr>
<td>Maintenance of Minor Works</td>
<td>26,576,143</td>
<td>35,661,217</td>
</tr>
<tr>
<td>Printing and Stationary</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Spare &amp; Accessories (CTC)</td>
<td>32,798,832</td>
<td>-</td>
</tr>
<tr>
<td>Spare &amp; Accessories (NSC)</td>
<td>60,148,578</td>
<td>-</td>
</tr>
<tr>
<td>Professional Charges</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Packing Charges</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Freight and Forwarding Expenses</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Distributions Expenses</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Security Services</td>
<td>55,481,496</td>
<td>32,707,217</td>
</tr>
<tr>
<td>Manpower Outsourcing Charges (BECIL/Sulabh/MRT etc.)</td>
<td>74,984,746</td>
<td>62,490,557</td>
</tr>
<tr>
<td>Sanitation Service (BVG)</td>
<td>51,264,394</td>
<td>52,003,350</td>
</tr>
<tr>
<td>Others (specify)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>368,053,449</strong></td>
<td><strong>239,497,294</strong></td>
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</tbody>
</table>
### SCHEDULE 22 (A) Adjustment of Advances

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advance Payment of DAVP</td>
<td>2,998,292</td>
<td>-</td>
</tr>
<tr>
<td>Others (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>2,998,292</td>
<td>0</td>
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</table>

### SCHEDULE 23 - Material & Supply

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material &amp; Supply</td>
<td>400,215,957</td>
<td>338,217,902</td>
</tr>
<tr>
<td>JSSK</td>
<td>1,993,270</td>
<td>-</td>
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<tr>
<td>Exp. Of Consumable and Regent used to M &amp; E</td>
<td>60,637,789</td>
<td>187,239,700</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>462,847,016</td>
<td>356,941,872</td>
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</table>
### SCHEDULE 24- EXPENDITURE ON GRANTS SUBSIDIES ETC.

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Amount in Rs.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Grants given to Institutions/Organisations</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Subsidies given to Institutions/Organisations</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>-</td>
<td>-</td>
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</tbody>
</table>

**Note:** Name of the Entities, their Activities along with the amount of Grants/Subsidies are to be disclosed.

### SCHEDULE 25- INTEREST & FINANCE EXPENSES

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Amount in Rs.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Fixed Loans</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) On Other Loans (including Bank Charges)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>c) Bank Charges (CNC Main)</td>
<td>1,537</td>
<td>2,142</td>
</tr>
<tr>
<td>c) Bank Charges (Gamma Knife)</td>
<td>1,357</td>
<td>734</td>
</tr>
<tr>
<td>c) Bank Charges (Angio Pts. A/c)</td>
<td>3,540</td>
<td>2,999</td>
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<tr>
<td>c) Bank Charges (C.T. Pts. A/c)</td>
<td>4,543</td>
<td>105,412</td>
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<tr>
<td>c) Bank Charges (Neuro Surgery A/c)</td>
<td>3,277</td>
<td>6,465</td>
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<tr>
<td>c) Bank Charges (Poor Pts. A/c)</td>
<td>649</td>
<td>649</td>
</tr>
<tr>
<td>d) Others (specify)</td>
<td>-</td>
<td>-</td>
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<tr>
<td>TOTAL</td>
<td>14,903</td>
<td>118,401</td>
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### BALANCE SHEET AS AT 31-03-2018

All India Institute of Medical Sciences, New Delhi  
Dr. Rajendra Prasad Centre for Ophthalmic Sciences

(Amount in Rupees)

<table>
<thead>
<tr>
<th>CORPUS/CAPITAL FUND AND LIABILITIES</th>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORPUS/CAPITAL FUND</td>
<td>1</td>
<td>3606471076</td>
<td>3206471076</td>
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<tr>
<td>RESERVES AND SURPLUS</td>
<td>2</td>
<td>72101573</td>
<td>140295935</td>
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<tr>
<td>EARMARKED/ENDOWMENT FUNDS</td>
<td>3</td>
<td>77148456</td>
<td>70273056</td>
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<tr>
<td>SECURED LOANS AND BORROWINGS</td>
<td>4</td>
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<tr>
<td>UNSECURED LOANS AND BORROWINGS</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEFERRED CREDIT LIABILITIES</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CURRENT LIABILITIES AND PROVISIONS</td>
<td>7</td>
<td>29163997</td>
<td>11019679</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>3784885102</strong></td>
<td><strong>3428059746</strong></td>
</tr>
</tbody>
</table>

| ASSETS                                                   |          |             |             |
| FIXED ASSETS                                             | 8        | 3293547341  | 2993197028  |
| INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS               | 9        |             |             |
| INVESTMENTS-OTHERS                                       | 10       |             |             |
| CURRENT ASSETS, LOANS, ADVANCES ETC.                     | 11       | 491337761   | 434862718   |
| MISCELLANEOUS EXPENDITURE                                |          |             |             |
| (to the extent not written off or adjusted)              |          |             |             |
| **TOTAL**                                                |          | **3784885102** | **3428059746** |

ACCOUNTS OFFICER  
CHIEF, RPC
## INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2018

**All India Institute of Medical Sciences, New Delhi**  
Dr. Rajendra Prasad Centre for Ophthalmic Sciences  

### INCOME  

<table>
<thead>
<tr>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
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<tbody>
<tr>
<td>12</td>
<td>36551342</td>
<td>276391580</td>
</tr>
<tr>
<td>13</td>
<td>133000000</td>
<td>119000000</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>8269995</td>
<td>4756665</td>
</tr>
<tr>
<td>18</td>
<td>492743</td>
<td>153380</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td><strong>1375314080</strong></td>
<td><strong>1471301625</strong></td>
</tr>
</tbody>
</table>

### EXPENDITURE  

<table>
<thead>
<tr>
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<th>2018-19</th>
<th>2017-18</th>
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</thead>
<tbody>
<tr>
<td>20</td>
<td>939015472</td>
<td>858476429</td>
</tr>
<tr>
<td>21</td>
<td>427437756</td>
<td>725128894</td>
</tr>
<tr>
<td>22</td>
<td>77055214</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (B)</strong></td>
<td><strong>1443508442</strong></td>
<td><strong>1583605323</strong></td>
</tr>
</tbody>
</table>

### Balance being excess of Expenditure over Income (B-A)  

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-68194362</td>
<td>-112303698</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer to Special Reserve (Specify each)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer to/from General Reserve</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CORPUS/CAPITAL FUND**  

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1375314080</td>
<td>1471301625</td>
</tr>
</tbody>
</table>

**ACCOUNTS OFFICER**  

**CHIEF, RPC**
**Receipts and Payments for the Year Ended 31-03-2019**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Opening Balances</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Cash in Hand</td>
<td>26500</td>
<td>26500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add: in compliance with Audit Observation (Audit Memo No.13/2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Payments made against funds for various projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Bank Balances</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) In current accounts</td>
<td>283651688</td>
<td>3516189138</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: in compliance with Audit Observation (Audit Memo No.13/2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>283648188</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>3. Investments and deposits made</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(c) Grant Received</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Grant in Aid (Plan) (Capital Assets)</td>
<td>400000000</td>
<td>240000000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Grant in Aid (General)</td>
<td>400000000</td>
<td>350000000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) Grant in Aid (Salaries)</td>
<td>930000000</td>
<td>840000000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) Swachhta Action Plan</td>
<td>500000000</td>
<td>612000000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(v) Grant in Aid (General) (Non-Plan)</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) From state Government</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Transfer to RPC Patient Treatment Account</td>
<td>500000000</td>
<td>27055214</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Payment to Main GPF Section</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Out of Earmarked/Endowment Funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(b) Non-RPC Scheme</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) SAP</td>
<td>49004198</td>
<td>995802</td>
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</tr>
<tr>
<td>(d) From other sources (RPC Research Projects)</td>
<td>18535561</td>
<td>23833839</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amt transfer from Main RPC for RPC Patient Treatment Account</td>
<td>500000000</td>
<td>14208334</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amt transfer from Main RPC for RPC Research Account</td>
<td>27055214</td>
<td></td>
<td></td>
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<tr>
<td>5. Transfer to RPC Research Accounts</td>
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</tr>
<tr>
<td>(a) Purchase of Fixed Assets</td>
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<tr>
<td>(b) Custome Duty</td>
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<td>(c) Latter of Credit</td>
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<td>450000000</td>
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<tr>
<td>(d) Vehicle Purchased</td>
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<tr>
<td>(e) Furniture &amp; Fixture</td>
<td>20430</td>
<td>85882790</td>
<td></td>
<td></td>
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<tr>
<td>(c) NPS Amount received from NSDL</td>
<td>33282385</td>
<td></td>
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</tr>
<tr>
<td>(d) From other sources (RPC Research Projects)</td>
<td>18535561</td>
<td>23833839</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amt transfer from Main RPC for RPC Patient Treatment Account</td>
<td>500000000</td>
<td>14208334</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amt transfer from Main RPC for RPC Research Account</td>
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<tr>
<td>6. Transfer to RPC Patient Treatment Accounts</td>
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<tr>
<td>(a) Grant in Aid (General) (Non-Plan)</td>
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<td></td>
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<tr>
<td>(b) From state Government</td>
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<tr>
<td>(c) Latter of Credit</td>
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<td></td>
</tr>
<tr>
<td>(d) Vehicle Purchased</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) Furniture &amp; Fixture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f) NPS Amount received from NSDL</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(g) From other sources (RPC Research Projects)</td>
<td></td>
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<tr>
<td>Amt transfer from Main RPC for RPC Patient Treatment Account</td>
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<td>14208334</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amt transfer from Main RPC for RPC Research Account</td>
<td></td>
<td>27055214</td>
<td></td>
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</tr>
<tr>
<td>7. Expenditure on Fixed Assets &amp; Capital Work-in-Progress</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(i) Swachhta Action Plan</td>
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<td></td>
</tr>
<tr>
<td>(ii) Grant in Aid (General) (Non-Plan)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(b) From state Government</td>
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</tr>
<tr>
<td>(c) Latter of Credit</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(d) Vehicle Purchased</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) Furniture &amp; Fixture</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(f) NPS Amount received from NSDL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) From other sources (RPC Research Projects)</td>
<td></td>
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<tr>
<td>Amt transfer from Main RPC for RPC Patient Treatment Account</td>
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<td>14208334</td>
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<tr>
<td>Amt transfer from Main RPC for RPC Research Account</td>
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<tr>
<td>8. Refund of surplus money/loans</td>
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<tr>
<td>(a) Grant in Aid (General) (Non-Plan)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(b) From state Government</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Latter of Credit</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(d) Vehicle Purchased</td>
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<td></td>
</tr>
<tr>
<td>(e) Furniture &amp; Fixture</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(f) NPS Amount received from NSDL</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(g) From other sources (RPC Research Projects)</td>
<td></td>
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<tr>
<td>Amt transfer from Main RPC for RPC Patient Treatment Account</td>
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<td>14208334</td>
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<tr>
<td>Amt transfer from Main RPC for RPC Research Account</td>
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<td>27055214</td>
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<tr>
<td>9. Finance Charges (Interest)</td>
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</tr>
<tr>
<td>FD</td>
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<td>NEFT charges</td>
<td>70611</td>
<td>85767</td>
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<tr>
<td>(d) Loans, Advances etc.</td>
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<tr>
<td>Amt transfer from Main RPC for RPC Patient Treatment Account</td>
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<td>148213</td>
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<td>74587</td>
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<td>Amt transfer from Main RPC for RPC Research Account</td>
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<td>27055214</td>
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<td></td>
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<tr>
<td>10. Other Payments</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>(a) Interest earned on Patient Treatment Account</td>
<td>1066695</td>
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<td></td>
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</tr>
<tr>
<td>(b) Interest earned on Research Project</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>(c) Interest earned on Research Project</td>
<td>1066695</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Car</td>
<td>40000</td>
<td>101116</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HBA</td>
<td>308117</td>
<td>331441</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer</td>
<td>5956</td>
<td>29386</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Festival</td>
<td>0</td>
<td>125038919</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**All India Institute of Medical Sciences, New Delhi**
**Dr. Rajendra Prasad Centre for Ophthalmic Sciences**
5. Other Income

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount 1</th>
<th>Amount 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Hospital Receipts</td>
<td>35608158</td>
<td>275116497</td>
</tr>
<tr>
<td>(ii) Patient Treatment Account Receipts</td>
<td>235192233</td>
<td>153380</td>
</tr>
<tr>
<td>(iii) Misc Receipts</td>
<td>492743</td>
<td>153380</td>
</tr>
</tbody>
</table>

6. Amount Borrowed

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount 1</th>
<th>Amount 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)Advance payment for purchase of Material and Supply</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

7. Any other receipts

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount 1</th>
<th>Amount 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) NIAF</td>
<td>248705</td>
<td>113360</td>
</tr>
<tr>
<td>(b) Earnest Money Deposits</td>
<td>2932938</td>
<td>1671000</td>
</tr>
<tr>
<td>(c) Employees Recovery</td>
<td>5971254</td>
<td>5983346</td>
</tr>
<tr>
<td>(i) Recoveries from employees</td>
<td>154425093</td>
<td>125038919</td>
</tr>
<tr>
<td>(ii) Outside Recoveries</td>
<td>83378947</td>
<td>71174550</td>
</tr>
<tr>
<td>(iii) GPF (Subscription and Advances)</td>
<td>17692641</td>
<td>17354550</td>
</tr>
<tr>
<td>(iv) NPS Recovery</td>
<td>290471</td>
<td>549815</td>
</tr>
<tr>
<td>v) NPS Recovery (without PRAN)</td>
<td>17692641</td>
<td>17354550</td>
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</table>

11. Closing Balances

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount 1</th>
<th>Amount 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Cash in hand</td>
<td>32500</td>
<td>26500</td>
</tr>
<tr>
<td>(b) Bank Balances</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount 1</th>
<th>Amount 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2697325627</td>
<td>2328857516</td>
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</tbody>
</table>

ACCOUNTS OFFICER

CHIEF, RPC
### All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)

#### SCHEDULE 1- CORPUS/CAPITAL FUND:

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balances as at the beginning of the year</td>
<td>3206471076</td>
<td>2966471076</td>
</tr>
<tr>
<td>Add: Contributions towards Corpus/Capital Fund</td>
<td>400000000</td>
<td>240000000</td>
</tr>
<tr>
<td>Less: Fixed Assets Condemned during the year</td>
<td>0</td>
<td>3606471076</td>
</tr>
</tbody>
</table>

**BALANCE AS AT THE YEAR-END**

<table>
<thead>
<tr>
<th></th>
<th>3606471076</th>
<th>3206471076</th>
</tr>
</thead>
</table>

#### SCHEDULE 2- RESERVES AND SURPLUS:

1. **Capital Reserve**
   - As per last Account
   - Addition during the year
   - Less: Deductions during the year

2. **Revaluation Reserve**
   - As per last Account
   - Addition during the year
   - Less: Deductions during the year

3. **Special Reserves**
   - As per last Account
   - Addition during the year
   - Less: Deductions during the year

4. **General Reserve**
   - As per last Account
   - Addition during the year
   - Less: Deductions during the year

**TOTAL**

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>72101573</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>140295935</td>
</tr>
</tbody>
</table>
## SCHEDULE 3 - EARMARKED/ENDOWMENT FUNDS

<table>
<thead>
<tr>
<th>Patient Treatment Account</th>
<th>Scheme Non-RPC</th>
<th>SAP*</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Scheme Non-RPC</td>
<td>SAP*</td>
<td>2018-19</td>
<td>2017-18</td>
</tr>
<tr>
<td>a) Opening balance of the funds</td>
<td>0</td>
<td>21268858</td>
<td>49004198</td>
<td>0</td>
</tr>
<tr>
<td>b) Additions to the Funds:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Donations/grants</td>
<td>285192233</td>
<td>27055214</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Income from investments made on account of funds</td>
<td>17592377</td>
<td>1066695</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. Other additions (specify nature)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. Less Expenditure during the year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL (a+b)</td>
<td>286584543</td>
<td>66983144</td>
<td>49004198</td>
<td>402571885</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Utilisation/Expenditure towards objectives of funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Capital Expenditure</td>
</tr>
<tr>
<td>- Fixed Assets</td>
</tr>
<tr>
<td>- Others</td>
</tr>
<tr>
<td>ii. Revenue Expenditure</td>
</tr>
<tr>
<td>- Salaries, Wages and allowances etc.</td>
</tr>
<tr>
<td>- Rent</td>
</tr>
<tr>
<td>- Other Administrative expenses</td>
</tr>
<tr>
<td>- Exp on kits for patients</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL (c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>255987375</td>
</tr>
</tbody>
</table>

NET BALANCE AS AT THE YEAR-END (a+b-c) | 30597168 | 46551288 | 0 | 77148456 | 70273056 |

* Swachhta Action Plan

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)
SCHEDULE 4-SECURED LOANS AND BORROWINGS:

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Central Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. State Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Financial Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Other Loans (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Other Institutions and Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

ACCOUNTS OFFICER
### SCHEDULE 5 - UNSECURED LOANS AND BORROWING

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Central Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. State Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Financial Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Other Loans (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Other Institutions and Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Fixed Deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### SCHEDULE 6 - DEFERRED CREDIT LIABILITIES:

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Acceptances secured by hypothecation of capital equipment and other assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

ACCOUNTS OFFICER
## A. CURRENT LIABILITIES AND PROVISIONS

1. Acceptances
2. Sundry Creditors:
   a) For Goods
   a) Others (Engg. Outstanding) 1421013 1421013
3. Advances Received for patients from Govt Agencies
   i) NIAF
      Opening Balance 1555040 1516267
      Received during the year 248705 113360
      Expenditure during the year 148213 165532 74587 1555040
4. Projects Grants
   ii) NPCB 827 827
5. Interest accrued but not due on:
   a) Secured Loans/borrowings
   a) Unsecured Loans/borrowings
6. Statutory Liabilities:
   a) Overdue
   a) Others
7. Security Deposits (EMD)
   Opening Balance 9236734 11071806
   Received during the year 2932938 1671000
   Refund during the year 5384176 6785496 3506072 9236734
6. Other current Liabilities 227078 227078
9. Amt against NPS to be remitted to AIIMS (MAIN) 0 0
   Opening Balance 33282385
   Less : Remitted to AIIMS (MAIN) 14208334 19074051 0
10. Custom Duty to be paid to Store (D.O.) 0 0
    Opening Balance 0
    Less : Remitted to Research AIIMS (MAIN) 0 0 0

### TOTAL (A)

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>29163997</td>
<td>11019679</td>
</tr>
</tbody>
</table>

## B. PROVISIONS

1. For Taxation
2. Gratuity
3. Superannuation/Pension
6. Accumulated Leave Encashment
6. Trade Warranties/Claims
6. Others (specify)

### TOTAL (B)

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>29163997</td>
<td>11019679</td>
</tr>
</tbody>
</table>

### TOTAL (A+B)

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>29163997</td>
<td>11019679</td>
</tr>
</tbody>
</table>

ACCOUNTS OFFICER

---

*All India Institute of Medical Sciences, New Delhi*

Dr. Rajendra Prasad Centre for Ophthalmic Sciences

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)
<table>
<thead>
<tr>
<th>SCHEDULE 8-FIXED ASSETS</th>
<th>GROSS BLOCK</th>
<th>DEPRICIATION</th>
<th>NET BLOCK</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISCRIPITION</td>
<td>Cost/valuation As at beginning of the year</td>
<td>Additions during the year</td>
<td>Deductions during the year</td>
</tr>
<tr>
<td>A. FIXED ASSETS:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 LAND:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Freehold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Leasehold</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2 BUILDINGS:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Freehold Land</td>
<td>233443859</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b) On Leasehold Land</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Ownership Flats/ Premises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Superstructures on Land not belonging to the entity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLANT MACHINERY &amp;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 EQUIPMENT</td>
<td>2733879503</td>
<td>299023189</td>
<td>0</td>
</tr>
<tr>
<td>4 VEHICLES</td>
<td>7689572</td>
<td>1306694</td>
<td>0</td>
</tr>
<tr>
<td>5 FURNITURE, FIXTURES</td>
<td>18184094</td>
<td>20430</td>
<td>0</td>
</tr>
<tr>
<td>6 OFFICE EQUIPMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 COMPUTER/PERIPHERALS</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8 ELECTRIC INSTALLATIONS</td>
<td></td>
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</tr>
<tr>
<td>9 LIBRARY BOOKS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 TUBE WELLS &amp; W. SUPPLY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 OTHER FIXED ASSETS</td>
<td></td>
<td></td>
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<tr>
<td><strong>TOTAL OF CURRENT YEAR</strong></td>
<td>2993197028</td>
<td>300350313</td>
<td>0</td>
</tr>
<tr>
<td><strong>PREVIOUS YEAR</strong></td>
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<tr>
<td><strong>TOTAL</strong></td>
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</tbody>
</table>

ACCOUNTS OFFICER
### Schedules Forming Part of Balance Sheet as at 31-03-2019

#### Schedule 9 - Investments from Earmarked / Endowment Funds

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Government Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Other approved Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others (to be specified)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Schedule 10 - Investments - Others

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Government Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Other approved Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others (to be specified)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Accounts Officer**

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences

(Amount in Rupees)
### Schedule 11 - Current Assets, Loans, Advances etc.

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. CURRENT ASSETS:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Advances for Procurement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) M&amp;E Foreign Purchases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Balance</td>
<td>109002733</td>
<td>48591168</td>
</tr>
<tr>
<td>Adjustment during the year</td>
<td>169150628</td>
<td>85882779</td>
</tr>
<tr>
<td>b) Material and Supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Balance</td>
<td>10658362</td>
<td>21432899</td>
</tr>
<tr>
<td>Adjustment during the year</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>c) Stock-in-trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finished Goods</td>
<td>876263</td>
<td>9782099</td>
</tr>
<tr>
<td>Work-in-progress</td>
<td>10774537</td>
<td>10658362</td>
</tr>
<tr>
<td>Raw Material</td>
<td>76253</td>
<td>76253</td>
</tr>
<tr>
<td>2. Sundry Debtors:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Debts Outstanding for a period exceeding six months</td>
<td>76253</td>
<td>76253</td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Cash balances in hand (including cheques/drafts and imprest)</td>
<td>32500</td>
<td>26500</td>
</tr>
<tr>
<td>4. Bank Balances:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Current Accounts</td>
<td>203260596</td>
<td>283651688</td>
</tr>
<tr>
<td>Patient Treatment Account</td>
<td>30578209</td>
<td>0</td>
</tr>
<tr>
<td>RPC Research Account</td>
<td>25686792</td>
<td>0</td>
</tr>
<tr>
<td>On Deposit Accounts (includes margin money)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>On Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) With non-Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Current Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Deposit Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. PDA Advance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Balance</td>
<td>350055</td>
<td>451865</td>
</tr>
<tr>
<td>Adjusted during the year</td>
<td>8805</td>
<td>341250</td>
</tr>
<tr>
<td>6. Custom Duty Advance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Balance</td>
<td>30781224</td>
<td>0</td>
</tr>
<tr>
<td>Added during the year</td>
<td>30000000</td>
<td>40842978</td>
</tr>
<tr>
<td>Adjusted during the year</td>
<td>29660097</td>
<td>10061754</td>
</tr>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td>491149408</td>
<td>434546815</td>
</tr>
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</table>

**ACCOUNTS OFFICER**
### All India Institute of Medical Sciences, New Delhi

Dr. Rajendra Prasad Centre for Ophthalmic Sciences

**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019**

(Amount in Rupees)

<table>
<thead>
<tr>
<th>SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC. (Contd.)</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B. LOANS, ADVANCES AND OTHER ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Loans:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Motor car</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Balance</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Less: Recovered during the year</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ii) House Building Advance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Balance</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Less: Recovered during the year</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>iii) Computer Advance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Balance</td>
<td>290000</td>
<td>290000</td>
</tr>
<tr>
<td>Less: Recovered during the year</td>
<td>123500</td>
<td>123500</td>
</tr>
<tr>
<td>Add: Addition during the year</td>
<td>0</td>
<td>166500</td>
</tr>
<tr>
<td>iv) Festival Advance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Balance</td>
<td>25903</td>
<td>25903</td>
</tr>
<tr>
<td>Less: Recovered during the year</td>
<td>4050</td>
<td>4050</td>
</tr>
<tr>
<td>Add: Addition during the year</td>
<td>0</td>
<td>21853</td>
</tr>
</tbody>
</table>

2. Advances and other amounts recoverable in cash or in kind or for value to be received:

a) On Capital Account
b) Prepayments
c) Others

3. Income Accrued:

a) On Investments from Earmarked / Endowment Funds
b) On Investments - Others
c) On Loans and Advances
d) Others
   (includes income due unrealised - Rs......)

4. Claims Receivable:

| TOTAL (B)        | 188353 | 315903 |
| TOTAL (A + B)    | 491337761 | 434862718 |

**ACCOUNTS OFFICER**
### SCHEDULE 12 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS

<table>
<thead>
<tr>
<th>Income Source</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Income from Sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Hospital receipts</td>
<td>35608158</td>
<td>275116497</td>
</tr>
<tr>
<td>2. Administrative charges (Projects)</td>
<td>943184</td>
<td>1275083</td>
</tr>
<tr>
<td>3. Sale of Scraps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Income from Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Labour and Processing Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Professional / Consultancy Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Agency Commission and Brokerage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Maintenance Services (Equipment/Property)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Others (Specify) Hospital Receipt</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>36551342</td>
<td>276391580</td>
</tr>
</tbody>
</table>

### SCHEDULE 13 - GRANTS / SUBSIDIES

<table>
<thead>
<tr>
<th>Income Source</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Income from Sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Irrevocable Grants &amp; Subsidies Received)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Central Government (Through AIIMS Main)</td>
<td>1330000000</td>
<td>1190000000</td>
</tr>
<tr>
<td>2. State Government(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Government Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Institutions/ Welfare Bodies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. International Organisations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1330000000</td>
<td>1190000000</td>
</tr>
</tbody>
</table>

Accounts Officer
### SCHEDULE 14 - FEES/SUBSCRIPTIONS

<table>
<thead>
<tr>
<th>Item</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tuition &amp; Examination Fee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Licence Fee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Seminar/Program Fees</td>
<td></td>
<td></td>
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<tr>
<td>4. Consultancy Fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Others (Specify) EHS</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>0</td>
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### SCHEDULE 15 - INCOME FROM INVESTMENTS

<table>
<thead>
<tr>
<th>Income on Invest. From Earmarked/Endowment Funds transferred to Funds</th>
<th>Investment from Earmarked Fund</th>
<th>Investment-Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Interest</td>
<td>2018-19</td>
<td>2017-18</td>
</tr>
<tr>
<td>a) On Govt. Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Other Bonds/Debentures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Dividends:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Mutual Fund Securities</td>
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</tr>
<tr>
<td>3. Rents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Others (Specify)</td>
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<td></td>
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<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TRANSFERRED TO EARMARKED/EDNOWMENT FUNDS</strong></td>
<td>0</td>
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</tbody>
</table>
### SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ETC.

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Income from Royalty</td>
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<td></td>
</tr>
<tr>
<td>2. Income from Publications</td>
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<tr>
<td>3. Others (specify)</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### SCHEDULE 17 - INTEREST EARNED

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. On Term Deposits:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks</td>
<td>7915922</td>
<td>4294722</td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) With Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. On Savings Accounts:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Post Office Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. On Loans:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Employees/Staff</td>
<td>354073</td>
<td>461943</td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Interest on Debtors and other Receivables</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>8269995</td>
<td>4756665</td>
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</table>
### Schedule 18 - Others Income

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Misc. Receipt</td>
<td>492743</td>
<td>153380</td>
</tr>
<tr>
<td>2. Estb. Receipt (Scheme)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Others (specify)</td>
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<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>492743</td>
<td>153380</td>
</tr>
</tbody>
</table>

### Schedule 19 - Increase/(Decrease) in Stock of Finished Goods & Work in Progress

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Closing stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Less: Opening Stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NET INCREASE/(DECREASE) [a+b]</strong></td>
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<td>0</td>
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</tbody>
</table>

### Schedule 20 - Establishment Expenses

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and Wages</td>
<td>910451812</td>
<td>833419749</td>
</tr>
<tr>
<td>Allowances and Bonus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travelling Allowances</td>
<td>10871019</td>
<td>7702130</td>
</tr>
<tr>
<td>Contribution to NPS</td>
<td>17692641</td>
<td>17354550</td>
</tr>
<tr>
<td>Contribution to Other Fund (Scheme Cell)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Welfare Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expenses on Employees : Retirement and Terminal Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (NPS &amp; LSPC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>939015472</td>
<td>858476429</td>
</tr>
</tbody>
</table>

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences

Schedules Forming Part of Income & Expenditure for the Year Ended 31-03-2019

[Amount in Rupees]

ACCOUNTS OFFICER
<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Purchases (Material and Supply)</td>
<td>239132104</td>
<td>512653937</td>
</tr>
<tr>
<td>b) Material received against advance paid during last years</td>
<td>876263</td>
<td>10774537</td>
</tr>
<tr>
<td>c) Office Expenses</td>
<td>7313374</td>
<td>5587028</td>
</tr>
<tr>
<td>d) Securities</td>
<td>35526612</td>
<td>33225168</td>
</tr>
<tr>
<td>e) Other Outsourcing Agency</td>
<td>14735314</td>
<td>13083037</td>
</tr>
<tr>
<td>f) Administrative Charges (Research Projects)</td>
<td>537725</td>
<td>506773</td>
</tr>
<tr>
<td>g) Repairs and maintenance (M&amp;E)</td>
<td>16781216</td>
<td>2500212</td>
</tr>
<tr>
<td>h) Bank charges RPC, Patient Treatment Account and research project</td>
<td>27117</td>
<td>8576</td>
</tr>
<tr>
<td>i) Payment to AIIMS RPC Patient Treatment A/C</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>j) Vehicles, Running and Maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k) Postage, Telephone and Communication Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l) Printing and Stationary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m) Travelling and Conveyance Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n) Expenses on Seminar/Workshops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o) Subscription Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p) Expenses on Sanitation</td>
<td>49770997</td>
<td>36212796</td>
</tr>
<tr>
<td>q) Maintenance of Buildings (Minor Work RG)</td>
<td>30974166</td>
<td>40065577</td>
</tr>
<tr>
<td>r) Maintenance of M&amp;E (CAMC/AMC)</td>
<td></td>
<td>49047336</td>
</tr>
<tr>
<td>s) Maintenance of Building (Non-plan)</td>
<td>31762868</td>
<td>21463917</td>
</tr>
<tr>
<td>t) Provision for Bad and Doubtful Debts/Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>u) Irrecoverable Balances Written-off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v) Swap Charges (IDBI Debit/Credit Card Commission)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>w) Freight and Forwarding Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x) Distribution Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>y) Insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>z) Advertisement and Publicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aa) Others (specify) (Contingency charge)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>427437756</strong></td>
<td><strong>725128894</strong></td>
</tr>
</tbody>
</table>

ACCOUNTS OFFICER
**SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC.**

<table>
<thead>
<tr>
<th>Item</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Purchases (Material and Supply)</td>
<td>239132104</td>
<td>512653937</td>
</tr>
<tr>
<td>b) Office Expenses</td>
<td>7313374</td>
<td>5587028</td>
</tr>
<tr>
<td>c) Securities</td>
<td>35526612</td>
<td>33225168</td>
</tr>
<tr>
<td>d) Other Outsourcing Agency</td>
<td>14735314</td>
<td>13083037</td>
</tr>
<tr>
<td>e) SAP Payment</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>f) Payment to AIIMS RPC Patient Treatment A/C</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>g) Repairs and maintenance (M&amp;E)</td>
<td>16781216</td>
<td>2500212</td>
</tr>
<tr>
<td>h) Excise Duty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Rent, Rates and Taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j) Vehicles, Running and Maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k) Postage, Telephone and Communication Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l) Printing and Stationary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m) Travelling and Conveyance Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n) Expenses on Seminar/Workshops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o) Subscription Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p) Expenses on Sanitation</td>
<td>49770997</td>
<td>36212796</td>
</tr>
<tr>
<td>q) Maintaince of Buildings (Minor Work RG)</td>
<td>30974166</td>
<td>40065577</td>
</tr>
<tr>
<td>r) Maintaince of M&amp;E (CAMC/AMC)</td>
<td>0</td>
<td>49047336</td>
</tr>
<tr>
<td>s) Maintaince of Building (Non-plan)</td>
<td>30341855</td>
<td>21463917</td>
</tr>
<tr>
<td>t) Provision for Bad and Doubtful Debts/Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>u) Irrecoverable Balances Written-off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v) Swap Charges/Bank charges (IDBI Debit/Credit Card Commission)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>w) Freight and Forwarding Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x) Distribution Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>y) Advertisement and Publicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>z) Others (specify) (Contingency charge)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>424575638</td>
<td>713839008</td>
</tr>
</tbody>
</table>

**SCHEDULE 22 - EXPENDITURE ON GRANTS, SUBSIDIES ETC.**

<table>
<thead>
<tr>
<th>Item</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a). Grants given to RPC Research Account</td>
<td>27055214</td>
<td>0</td>
</tr>
<tr>
<td>b). Grant given to RPC Patient Treatment Account</td>
<td>50000000</td>
<td>0</td>
</tr>
<tr>
<td>b). Subsidies given to Institutions/organisations</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>77055214</td>
<td>0</td>
</tr>
</tbody>
</table>

**SCHEDULE 23 - INTEREST**

<table>
<thead>
<tr>
<th>Item</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) On fixed Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) On other Loans (including Bank charges)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CORPUS/CAPITAL FUND AND LIABILITIES</td>
<td>Schedule</td>
<td>Current Year 2018-19</td>
</tr>
<tr>
<td>----------------------------------------------------</td>
<td>----------</td>
<td>----------------------</td>
</tr>
<tr>
<td>CORPUS/CAPITAL FUND</td>
<td>1</td>
<td>2,761,091,131</td>
</tr>
<tr>
<td>RESERVES AND SURPLUS</td>
<td>2</td>
<td>56,284,082</td>
</tr>
<tr>
<td>EARMARKED/ENDOWMENT FUNDS</td>
<td>3</td>
<td>157,228,257</td>
</tr>
<tr>
<td>SECURED LOANS AND ABORROWINGS</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>UNSECURED LOANS AND BORROWINGS</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>DEFERRED CRDIT LIABILITIES</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>CURRENT LIABILITIES AND PROVISIONS</td>
<td>7</td>
<td>9,796,232</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>2,984,399,702</td>
</tr>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIXED ASSETS</td>
<td>8</td>
<td>2,380,561,426</td>
</tr>
<tr>
<td>INVESTMENTS – FROM EARMARKED/ENDOWMENT FUNDS</td>
<td>9</td>
<td>-</td>
</tr>
<tr>
<td>INVESTMENTS – OTHERS</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>CURRENT ASSETS, LOANS, ADVANCES ETC.</td>
<td>11</td>
<td>603,838,276</td>
</tr>
<tr>
<td>MISCELLANEOUS EXPENDITURE (Balance of excess of expenditure over income) (to the extent not written off or adjusted)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>2,984,399,702</td>
</tr>
<tr>
<td>SIGNIFICANT ACCOUNTING POLICIES</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

Accounts Officer

Chief (Dr. BRAIRCH)
## Income and Expenditure Account for the Financial Year 2018-19

### Income

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from sales/services</td>
<td>25,275,987</td>
<td>23,839,849</td>
</tr>
<tr>
<td>Grants/Subsidies</td>
<td>1,571,296,695</td>
<td>1,247,043,000</td>
</tr>
<tr>
<td>Fees/Subscriptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from Investments (Income on Invest, from earmarked/endowed Fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>transferred to Funds)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from Royalty, Publication etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest Earned</td>
<td>6,696,406</td>
<td>3,401,586</td>
</tr>
<tr>
<td>Other Income</td>
<td></td>
<td>98,457</td>
</tr>
<tr>
<td>Increase/(decrease) in stock of Finished goods and works-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td>1,603,269,088</td>
<td>1,274,382,892</td>
</tr>
</tbody>
</table>

### Expenditure

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment Expenses</td>
<td>905,629,239</td>
<td>777,928,149</td>
</tr>
<tr>
<td>Other Administrative Expenses etc.</td>
<td>674,972,163</td>
<td>483,403,648</td>
</tr>
<tr>
<td>Expenditure on Grants, Subsidies etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest</td>
<td></td>
<td>98,457</td>
</tr>
<tr>
<td>Depreciation (Net Total at the year-end – corresponding to schedule 8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (B)</strong></td>
<td>1,580,601,402</td>
<td>1,261,331,797</td>
</tr>
</tbody>
</table>

**Balance being excess of Income over Expenditure (A-B)**                    | 22,667,686            | 13,051,095            |

**Significant Accounting Policies**                                        |                       |                       |
**Contingent Liabilities and Notes on Accounts**                           |                       |                       |

**Chief (Dr. BRAIRCH)**

**Accounts Officer**
### DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS

**RECEIPTS AND PAYMENTS FOR THE FINANCIAL YEAR 2018-19**

(Amounts in Rs.)

<table>
<thead>
<tr>
<th>RECEIPTS</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
<th>PAYMENTS</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Balances (Opening)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Cash In hand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Bank Balances</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Current Accounts</td>
<td>208,495,385</td>
<td>110,442,002</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Deposit Account</td>
<td>30,000,000</td>
<td>36,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Grant received from Government of India through AIIMS (Main) including NCI Jhajjar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Grant in Aid (Capital Assets)</td>
<td>266,680,553</td>
<td>110,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Grant in Aid (Salary)</td>
<td>911,296,695</td>
<td>782,043,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) Grant in Aid (General)</td>
<td>660,000,000</td>
<td>465,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) Swachhta Action Plan</td>
<td></td>
<td>50,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) From Other Sources-Scrap Sales</td>
<td>217,120</td>
<td>402,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. On Investments from</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Earmarked/Endow. Funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Revolving Funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) R T Revolving Fund</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Medical Oncology Fund</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) Poor Patient A/c</td>
<td></td>
<td>107,355</td>
<td></td>
<td>459,969</td>
<td></td>
</tr>
<tr>
<td>(iv) Patient Treatment A/c</td>
<td>123,312,506</td>
<td>81,795,620</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(v) HMCPF A/c</td>
<td>1,268,212</td>
<td>2,955,648</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(vii) Swachhta action Plan</td>
<td>35,910,080</td>
<td>9,412,238</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. Expenditure on Fixed Assets &amp; Capital Work-in-progress</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Purchase of Fixed Assets</td>
<td>163,646,279</td>
<td>65,124,243</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Advance for M&amp;E</td>
<td>84,365,482</td>
<td>43,805,454</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Custome duty advance</td>
<td>20,000,000</td>
<td>1,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV. Refund of surplus money/Loans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) To the Government of India</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) To the State Government</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) To other providers of fund</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### III. Interest Received

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest on TDR</td>
<td>6,696,406</td>
<td>3,401,586</td>
</tr>
<tr>
<td>Interest on poor patient account</td>
<td>1,496,488</td>
<td>2,369,217</td>
</tr>
<tr>
<td>Interest on patient treatment account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Loans &amp; Advances etc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### IV. Other Income (Specify)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Donation/Grant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Hospital Receipts</td>
<td>25,058,867</td>
<td>23,437,849</td>
</tr>
<tr>
<td>(c) EMD</td>
<td>1,875,000</td>
<td>6,214,000</td>
</tr>
</tbody>
</table>

### V. Other Payments (Specify)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Donation/Grant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) EMD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Loan, Advances &amp; Other Assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Conveyance Advance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Computer Advances</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### V. Other receipts

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Earnest Money Deposits</td>
<td>365,000</td>
<td>4,236,000</td>
</tr>
<tr>
<td>(b) Employees Recovery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Recoveries from employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Outside Recoveries</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### VI. Loan, Advances & Other Assets

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Conveyance Advance</td>
<td>28,800</td>
<td>34,800</td>
</tr>
<tr>
<td>(ii) Computer Advances</td>
<td>80,852</td>
<td>13,800</td>
</tr>
<tr>
<td>(iii) Festival Advances Recovery</td>
<td>4,500</td>
<td>297,000</td>
</tr>
</tbody>
</table>

### VI. Closing Balances

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Cash in hand</td>
<td>7,590</td>
<td></td>
</tr>
<tr>
<td>(b) Bank Balances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) In current accounts</td>
<td>205,977,449</td>
<td>208,495,385</td>
</tr>
<tr>
<td>(ii) In deposit accounts</td>
<td>30,000,000</td>
<td>30,000,000</td>
</tr>
</tbody>
</table>

### Total

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2,253,427,958</td>
<td>1,911,598,519</td>
</tr>
</tbody>
</table>
### SCHEDULE 1 - CORPUS/CAPITAL FUND:

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance as at the beginning of the year</td>
<td>2,494,410,578</td>
<td>2,394,279,753</td>
</tr>
<tr>
<td>Add: Contributions towards Corpus/Capital Fund</td>
<td>266,680,553</td>
<td>110,000,000</td>
</tr>
<tr>
<td>Less: M &amp; E Condemned</td>
<td>-</td>
<td>9,869,175</td>
</tr>
<tr>
<td>Less: Excess Capitalized</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Add/ (Deduct) : Balance of net income/(expenditure)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transferred from the Income and Expenditure Account</td>
<td>- 266,680,553</td>
<td>100,130,825</td>
</tr>
<tr>
<td><strong>BALANCE AS AT THE YEAR-END</strong></td>
<td>2,761,091,131</td>
<td>2,494,410,578</td>
</tr>
</tbody>
</table>

### SCHEDULE 2 - RESERVES AND SURPLUS:

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Capital Reserve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As per last Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional during the year</td>
<td>(-)</td>
<td>(-)</td>
</tr>
<tr>
<td>Less : Deductions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Revaluation Reserve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As per last Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional during the year</td>
<td>(-)</td>
<td>(-)</td>
</tr>
<tr>
<td>Less : Deductions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Special Reserves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As per last Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional during the year</td>
<td>(-)</td>
<td>(-)</td>
</tr>
<tr>
<td>Less : Deductions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. General Reserves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As per last Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional during the year</td>
<td>(-)</td>
<td>(-)</td>
</tr>
<tr>
<td>Less : Deductions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Excess of Income over Expenditure</td>
<td>33,616,396</td>
<td>20,565,301</td>
</tr>
<tr>
<td>As per last Account</td>
<td>33,616,396</td>
<td>20,565,301</td>
</tr>
<tr>
<td>Additional during the year</td>
<td>22,667,686</td>
<td>13,051,095</td>
</tr>
<tr>
<td>Less : Deductions during the year</td>
<td>56,284,082</td>
<td>33,616,396</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>56,284,082</td>
<td>33,616,396</td>
</tr>
<tr>
<td>SCHEDULE 3 - EARMARKED/ENDOWMENT FUNDS</td>
<td>FUND-WISE BREAK UP</td>
<td>TOTALS</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>R.T. Revolving Fund</td>
<td>Medical Oconology Revolving Fund</td>
</tr>
<tr>
<td>a) Opening balance of the funds</td>
<td>8,865,723</td>
<td>2,764,119</td>
</tr>
<tr>
<td>b) Additions to the Funds:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i Donations/grants</td>
<td>2,955,000</td>
<td>471,100</td>
</tr>
<tr>
<td>ii Income from investments made on account of funds</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>iii Other additions (specify nature)</td>
<td>1,496,488</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL (a+b)</td>
<td>11,820,723</td>
<td>3,235,219</td>
</tr>
<tr>
<td>a) Utilization/Expenditure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>towards objectives of funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i Capital Expenditure</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Fixed Assets</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Others</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ii Revenue Expenditure</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Salaries, Wages and allowances etc.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Other Administrative expenses</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL (c)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes:
1. Disclosures shall be made under relevant heads based on conditions attaching to the grants.
2. Plan fund received from Central/State Governments are to be shown as separate Funds and not be mixed up with any other funds.

Accounts Officer
## SCHEDULE 4 - SECURED LOANS AND BORROWINGS:

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Central Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. State Government (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Financial Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Terms Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Other Loans (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Other Institutions and Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note**: Amounts due within one year

Accounts Officer
**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS**

**SCHDULES FORMING PART OF BALANCE SHEET FOR THE FINANCIAL YEAR - 2018-19**

<table>
<thead>
<tr>
<th>SCHEDULE 5 - UNSECURED LOANS AND BORROWINGS:</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Central Government</td>
<td>....</td>
<td>....</td>
</tr>
<tr>
<td>2. State Government (Specify)</td>
<td>....</td>
<td>....</td>
</tr>
<tr>
<td>3. Financial Institutions</td>
<td>....</td>
<td>....</td>
</tr>
<tr>
<td>4. Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td>....</td>
<td>....</td>
</tr>
<tr>
<td>b) Other Loans (Specify)</td>
<td>....</td>
<td>....</td>
</tr>
<tr>
<td>5. Other Institutions and Agencies</td>
<td>....</td>
<td>....</td>
</tr>
<tr>
<td>6. Debentures and Bonds</td>
<td>....</td>
<td>....</td>
</tr>
<tr>
<td>7. Fixed Deposits</td>
<td>....</td>
<td>....</td>
</tr>
<tr>
<td>8. Others (Specify)</td>
<td>....</td>
<td>....</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Amounts due within one year

<table>
<thead>
<tr>
<th>SCHEDULE 6 – DEFERRED CREDIT LIABILITIES:</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Acceptances secured by hypothecation of capital equipment and other assets</td>
<td>....</td>
<td>....</td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Amounts due within one year

Accounts Officer
### SCHEDULE 7 – CURRENT LIABILITIES AND PROVISIONS

#### A. CURRENT LIABILITIES

1. **Acceptance**
2. **Sundry Creditors:**
   a) For Goods
   b) Others
3. **Advances Received**
4. **Interest accrued but not due on:**
   a) Secured Loans/borrowings
   b) Unsecured Loans/borrowings
5. **Statutory Liabilities:**
   a) Overdue
   Others NPS fund Received from NSDL
   - Less NPS Amount transfer to GPF 2018-19
   - Less : Paid during the year
6. **Other current liabilities**
   a) Bank Overdraft (as per Cash Book)
   b) EMD/ Security Deposits
   c) FDR Issued

#### B. PROVISIONS

1. **For Taxation**
2. **Gratuity**
3. **Superannuation/Pension**
4. **Accumulated Leave Encashment**
5. **Trade Warranties/Claims**
6. **Others (Specify)**

<table>
<thead>
<tr>
<th></th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td>9,796,232</td>
<td>3,912,820</td>
</tr>
<tr>
<td><strong>TOTAL (B)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (A+B)</strong></td>
<td>9,796,232</td>
<td>3,912,820</td>
</tr>
</tbody>
</table>

*DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS*

*SCHEDULES FORMING PART OF BALANCE SHEET FOR THE FINANCIAL YEAR - 2018-19*

*(Amount in Rs.)*

**Accounts Officer**
<table>
<thead>
<tr>
<th>SCHEDULE 8 – FIXED ASSETS</th>
<th>GROSS BLOCK</th>
<th></th>
<th></th>
<th>DEPRECIATION</th>
<th></th>
<th>NET BLOCK</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost/valuation as at beginning of the year</td>
<td>Additions during the year</td>
<td>Deductions during the year</td>
<td>Cost/valuation at the year-end</td>
<td>As at the beginning of the year</td>
<td>On Additions during the year</td>
<td>On Deductions during the year</td>
<td>Total up to the year-end</td>
</tr>
<tr>
<td><strong>A. FIXED ASSETS:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. LAND:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Freehold</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Leasehold</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. BUILDINGS:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Freehold Land</td>
<td>339,060,768</td>
<td>339,060,768</td>
<td>-</td>
<td>339,060,768</td>
<td>339,060,768</td>
<td>339,060,768</td>
<td>339,060,768</td>
<td>339,060,768</td>
</tr>
<tr>
<td>b) On Leasehold Land</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Ownership Flats/Premises</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Superstructures on Land  Not belonging to the entity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. PLANT MACHINERY &amp; EQUIPMENT</td>
<td>1,784,852,614</td>
<td>241,068,396</td>
<td>-</td>
<td>2,025,921,010</td>
<td>-</td>
<td>2,025,921,010</td>
<td>1,784,852,614</td>
<td>1,784,852,614</td>
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<tr>
<td>4. VEHICLES</td>
<td>3,563,988</td>
<td>-</td>
<td>3,563,988</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3,563,988</td>
<td>3,563,988</td>
</tr>
<tr>
<td>5. FURNITURE, FIXTURES</td>
<td>11,662,657</td>
<td>353,003</td>
<td>12,015,660</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>11,662,657</td>
<td>11,662,657</td>
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<tr>
<td>6. OFFICE EQUIPMENT</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. COMPUTER/PERIPHERALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. ELECTRIC INSTALLATIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. LIBRARY BOOKS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. TUBEWELLS &amp; W.SUPPLY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. OTHER FIXED ASSETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL OF CURRENT YEAR</strong></td>
<td>2,139,140,027</td>
<td>241,421,399</td>
<td>-</td>
<td>2,380,561,426</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>PREVIOUS YEAR</strong></td>
<td>2,066,588,433</td>
<td>82,420,769</td>
<td>9,869,175</td>
<td>2,139,140,027</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(Note to be given as to cost of assets on hire purchase basis include above)
### SCHEDULE 9 – INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS

<table>
<thead>
<tr>
<th></th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>In Government Securities</td>
<td>.....</td>
</tr>
<tr>
<td>2.</td>
<td>Other approved Securities</td>
<td>.....</td>
</tr>
<tr>
<td>3.</td>
<td>Shares</td>
<td>.....</td>
</tr>
<tr>
<td>4.</td>
<td>Debentures and Bonds</td>
<td>.....</td>
</tr>
<tr>
<td>5.</td>
<td>Subsidiaries and joint Ventures</td>
<td>.....</td>
</tr>
<tr>
<td>6.</td>
<td>Others (to be specified)</td>
<td>.....</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>.....</td>
</tr>
</tbody>
</table>

### SCHEDULE 10 – INVESTMENTS - OTHERS

<table>
<thead>
<tr>
<th></th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>In Government Securities</td>
<td>.....</td>
</tr>
<tr>
<td>2.</td>
<td>Other approved Securities</td>
<td>.....</td>
</tr>
<tr>
<td>3.</td>
<td>Shares</td>
<td>.....</td>
</tr>
<tr>
<td>4.</td>
<td>Debentures and Bonds</td>
<td>.....</td>
</tr>
<tr>
<td>5.</td>
<td>Subsidiaries and joint Ventures</td>
<td>.....</td>
</tr>
<tr>
<td>6.</td>
<td>Others (to be specified)</td>
<td>.....</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>.....</td>
</tr>
</tbody>
</table>
A. CURRENT ASSETS:

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inventors:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Stores and Spares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Loose Tools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Stock-in-trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw Materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Sundry Debtors:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Debts Outstanding for a period exceeding six months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Cash balance in hand (including cheques/drafts and imprest)</td>
<td>7,590</td>
<td></td>
</tr>
<tr>
<td>4. Bank Balances:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- On Current Accounts (IRCH)</td>
<td>98,451,346</td>
<td>64,220,344</td>
</tr>
<tr>
<td>- On Current Accounts (NCI)</td>
<td>31,470</td>
<td></td>
</tr>
<tr>
<td>- On Current Accounts (PATIENT TREATMENT A/C)</td>
<td>100,125,843</td>
<td>97,727,556</td>
</tr>
<tr>
<td>- On Current Accounts (POOR PATIENT A/C)</td>
<td>7,090,938</td>
<td>4,701,421</td>
</tr>
<tr>
<td>- On Current Accounts (HMCF)</td>
<td>277,852</td>
<td>1,846,064</td>
</tr>
<tr>
<td>- On Deposit Accounts (PATIENT TREATMENT A/C) (FDR)</td>
<td>30,000,000</td>
<td>30,000,000</td>
</tr>
<tr>
<td>- On Deposit Accounts (IRCH) (FDR)</td>
<td>-</td>
<td>40,000,000</td>
</tr>
<tr>
<td>b) With non-Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- On Current Accounts</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>- On Deposit Accounts</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>- On Saving Accounts</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>5. Post Office Saving Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL (A)</td>
<td>235,985,039</td>
<td>238,495,385</td>
</tr>
</tbody>
</table>
### Schedule 11 - Current Assets, Loans, Advances etc. (Contd.)

#### B. Loans, Advances and Other Assets

1. Loans:
   a) Staff - Opening Balance
      Add. During the year
      Less recovering during 2018-19
      Less recovering during 2018-19
   b) Other Entities engaged in activities/objectives similar to that of the Entity
   c) Other

2. Advances and other amounts recoverable in cash or in kind or for value to be received:
   a) On Capital Account Machinery and Equipment
      Opening Balance
      Add: Addition during the year
      Less : Adjusted during the year
   b) NDMC
   c) Others

3. Income Accrued:
   a) On Investments from Earmarked/Endowment Funds
   b) On Investments - Others
   c) On Loans and Advances
   d) Others

   (includes income due to unrealized Rs....)

4. Claims Receivable

<table>
<thead>
<tr>
<th></th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B. LOANS, ADVANCES AND OTHER ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Loans:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Staff - Opening Balance</td>
<td>178,000</td>
<td>337,393</td>
</tr>
<tr>
<td>Add. During the year</td>
<td>580,000</td>
<td>186,207</td>
</tr>
<tr>
<td>Less recovering during 2018-19</td>
<td>114,152</td>
<td>643,848</td>
</tr>
<tr>
<td></td>
<td>345,600</td>
<td>178,000</td>
</tr>
<tr>
<td>b) Other Entities engaged in activities/objectives similar to that of the Entity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Other (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Advances and other amounts recoverable in cash or in kind or for value to be received:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Capital Account Machinery and Equipment</td>
<td>283,489,616</td>
<td>254,325,776</td>
</tr>
<tr>
<td>Opening Balance</td>
<td>283,489,616</td>
<td>254,325,776</td>
</tr>
<tr>
<td>Add: Addition during the year</td>
<td>84,365,482</td>
<td>43,805,454</td>
</tr>
<tr>
<td>Less : Adjusted during the year</td>
<td>53,673,434</td>
<td>14,641,614</td>
</tr>
<tr>
<td>Custome Duty/PDA Advance</td>
<td>54,503,411</td>
<td>56,158,323</td>
</tr>
<tr>
<td>Opening Balance</td>
<td>54,503,411</td>
<td>56,158,323</td>
</tr>
<tr>
<td>Add: Addition during the year</td>
<td>20,000,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Less : Adjusted during the year</td>
<td>24,101,686</td>
<td>2,221,621</td>
</tr>
<tr>
<td>Less : Previous year adjustment</td>
<td>-</td>
<td>50,401,725</td>
</tr>
<tr>
<td>b) NDMC</td>
<td>2,626,000</td>
<td>2,626,000</td>
</tr>
<tr>
<td>c) Others</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Income Accrued:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Investments from Earmarked/Endowment Funds</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) On Investments - Others</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>c) On Loans and Advances</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>d) Others</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(includes income due to unrealized Rs....)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Claims Receivable</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL (B)</strong></td>
<td>367,853,237</td>
<td>340,797,027</td>
</tr>
<tr>
<td><strong>TOTAL (A+B)</strong></td>
<td>603,838,276</td>
<td>579,292,412</td>
</tr>
</tbody>
</table>
### SCHEDULE 12 – INCOME FROM SALES/SERVICES

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Income from Sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Sale of Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Sale of Raw Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Sale of Scraps</td>
<td>217,120</td>
<td>402,000</td>
</tr>
<tr>
<td>2) Income from Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Hospital Receipts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Professional/Consultancy Services</td>
<td>25,058,867</td>
<td>23,437,849</td>
</tr>
<tr>
<td>c) Agency Commission and Brokerage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Maintenance Services (Equipment/property)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>25,275,987</td>
<td>23,839,849</td>
</tr>
</tbody>
</table>

### SCHEDULE 13 – GRANTS/SUBSIDIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Irrevocable Grants &amp; Subsidies Received)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Central Government (Through AIIMS Main)</td>
<td>1,571,296,695</td>
<td>1,247,043,000</td>
</tr>
<tr>
<td>2) State Government(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Government Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Institutions/Welfare Bodies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) International Organizations</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,571,296,695</td>
<td>1,247,043,000</td>
</tr>
</tbody>
</table>
### Schedule 14 - Fees/Subscriptions

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Entrance Fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Annual Fees/Subscriptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Seminar/Program Fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Consultancy Fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Accounting Policies towards each item are to be disclosed.

### Schedule 15 - Income from Investments

<table>
<thead>
<tr>
<th>Description</th>
<th>Investment from Earmarked Fund</th>
<th>Investment - Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Income on Invest. From Earmarked/Endowment Funds transferred to funds)</td>
<td>Current Year 2018-19</td>
<td>Previous Year 2017-18</td>
</tr>
<tr>
<td>1) Interest</td>
<td>Current Year 2018-19</td>
<td>Previous Year 2017-18</td>
</tr>
<tr>
<td>a) On Govt. Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Other Bonds/Debentures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Dividends:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) On Mutual Fund Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Rents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Transferred to Earmarked/Endowment Funds**

Accounts Officer
### SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATIONS ETC.

<table>
<thead>
<tr>
<th></th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Income from Ro...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Income from P...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SCHEDULE 17 - INTEREST EARNED

<table>
<thead>
<tr>
<th></th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) On Term Deposits:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) With Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) On Savings Accounts:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Post Office Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) On Loans:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Employees/Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Interest on Debtors and Other Receivables</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>3,401,586</td>
</tr>
</tbody>
</table>

Note: Tax deducted at source to be indicated.

Accounts Officer
## SCHEDULE 18 – OTHER INCOME

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Profit on sale/disposal of Assets:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Owned assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Assets acquired out of grants, or received free of cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Export Incentives realized</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Fees for Miscellaneous Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Miscellaneous-Adjustment on account of Festival and computer advance</td>
<td></td>
<td>98,457</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>98,457</td>
</tr>
</tbody>
</table>

## SCHEDULE 19 – INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Closing Stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Less: Opening Stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NET INCREASE/(DECLREASE) (a+b)</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## SCHEDULE 20 – ESTABLISHMENT EXPENSES

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Salaries and Wages</td>
<td>890,450,458</td>
<td>769,236,293</td>
</tr>
<tr>
<td>b) Travelling Allowance</td>
<td>15,178,781</td>
<td>8,691,856</td>
</tr>
<tr>
<td>c) Contribution to Provident Fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Contribution to Other Fund (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Staff Welfare Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Expenses on Employees Retirement and Terminal Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Others : Computer advance excess adjusted to salary and wages</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>905,629,239</td>
<td>777,928,149</td>
</tr>
</tbody>
</table>

Accounts Officer
<table>
<thead>
<tr>
<th>SCHEDULE 21 – OTHER ADMINISTRATIVE EXPENSIVE ETC.</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Purchase (Material and Supply)</td>
<td>420,321,204</td>
<td>247,231,797</td>
</tr>
<tr>
<td>b) Regents</td>
<td>79,038,583</td>
<td>50,350,546</td>
</tr>
<tr>
<td>c) Hiring of Manpower</td>
<td>72,771,772</td>
<td>55,649,615</td>
</tr>
<tr>
<td>d) Minor Works (Engineering)</td>
<td>12,006,115</td>
<td>29,133,516</td>
</tr>
<tr>
<td>e) Sanitation Expenses</td>
<td>6,328,894</td>
<td>24,542,293</td>
</tr>
<tr>
<td>f) Maintenance of Building</td>
<td>22,682,249</td>
<td>15,053,860</td>
</tr>
<tr>
<td>g) Repairs and maintenance (M&amp;E)</td>
<td>17,128,957</td>
<td>11,214,734</td>
</tr>
<tr>
<td>h) CAMC</td>
<td>36,975,261</td>
<td>49,596,612</td>
</tr>
<tr>
<td>i) Others (specify) Contingency Bill</td>
<td>7,719,128</td>
<td>630,675</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>674,972,163</strong></td>
<td><strong>483,403,648</strong></td>
</tr>
</tbody>
</table>

(Amount in Rs.)
<table>
<thead>
<tr>
<th>SCHEDULE 22 – EXPENDITURE ON GRANTS, SUBSIDIES ETC.</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Grants given to Institutions/Organisations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Subsidies given to Institutions/Organisations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note – Name of the Entities, their Activities along with the amount of Grants/subsidies are to be disclosed.

<table>
<thead>
<tr>
<th>SCHEDULE 23 – INTEREST</th>
<th>Current Year 2018-19</th>
<th>Previous Year 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) On Fixed Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) On Other Loans (including bank Charges)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Others (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Accounts Officer
**All India Institute of Medical Sciences, New Delhi**  
अखिल भारतीय आयुर्विज्ञान संस्थान  
Jai Prakash Narayan Apex Trauma Centre  
जय प्रकाश नारायण एपेक्स ट्रॉमा सेंटर  
**BALANCE SHEET AS AT 31-03-2019**  
तुलन पत्र 31 मार्च, २०१९ तक  

<table>
<thead>
<tr>
<th>Corps/Capital Fund and Liabilities</th>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corpus/Capital Fund</td>
<td>1</td>
<td>3,080,668,244.00</td>
<td>2,982,352,665.00</td>
</tr>
<tr>
<td>Reserves and Surplus</td>
<td>2</td>
<td>162,126,645.00</td>
<td>153,940,082.00</td>
</tr>
<tr>
<td>Earmarked/Endowment Funds</td>
<td>3</td>
<td>26,958,208.00</td>
<td>45,730,055.00</td>
</tr>
<tr>
<td>Secured Loans and Borrowings</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsecured Loans and Borrowings</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred Credit Liabilities</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Liabilities and Provisions</td>
<td>7</td>
<td>46,214,776.00</td>
<td>37,468,957.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>3,315,967,873.00</strong></td>
<td><strong>3,219,491,759.00</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assets</th>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Assets</td>
<td>8</td>
<td>2,989,866,526.00</td>
<td>2,881,994,032.00</td>
</tr>
<tr>
<td>Investments-From Earmarked/Endowment Funds</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investments-Others</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Assets, Loans, Advances Etc.</td>
<td>11</td>
<td>326,101,347.82</td>
<td>337,497,727.00</td>
</tr>
<tr>
<td><strong>Miscellaneous Expenditure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(to the extent not written off or adjusted)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>3,315,967,873.82</strong></td>
<td><strong>3,219,491,759.00</strong></td>
</tr>
</tbody>
</table>

F&CAO: CHIEF, JPNATC
## INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2019

### आय और व्यय का खाता

#### INCOME

<table>
<thead>
<tr>
<th>Description</th>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from Sales/Services (Hospital Receipts)</td>
<td>12</td>
<td>32445169</td>
<td>10005887</td>
</tr>
<tr>
<td>Grants/Subsidies</td>
<td>13</td>
<td>1925166374</td>
<td>1656221458</td>
</tr>
<tr>
<td>Fees/Subscriptions</td>
<td>14</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Income from Investments (Income on Invest. From earmeked/endow.Funds transfered to funds)</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Income for Royalty, Publication etc.</td>
<td>16</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Interest Earned</td>
<td>17</td>
<td>13752061</td>
<td>9845810</td>
</tr>
<tr>
<td>Other Income</td>
<td>18</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Increase/(decrease) in stock of Finished goods and works-in-progress</td>
<td>19</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td></td>
<td>1971363604</td>
<td>1676073155</td>
</tr>
</tbody>
</table>

#### EXPENDITURE

<table>
<thead>
<tr>
<th>Description</th>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment Expenses</td>
<td>20</td>
<td>1085166374</td>
<td>976221458</td>
</tr>
<tr>
<td>Other Administrative Expenses etc.</td>
<td>21</td>
<td>878010667</td>
<td>699219930</td>
</tr>
<tr>
<td>Expenditure on Grants, Subsidies etc.</td>
<td>22</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Interest</td>
<td>23</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Depreciation (Net Total at the year-end - corresponding to Schedule 8)</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL (B)</strong></td>
<td></td>
<td>1963177041</td>
<td>1675441388</td>
</tr>
</tbody>
</table>

Balance being excess of Expenditure over income (B-A)           | 8186563  | 631767    |

Transfer to Special Reserve (Specify each)                      |          |           |
Transfer to/from General Reserve                                |          |           |

**BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CORPUS/ CAPITAL FUND** | 8186563  | 631767    |

F&CAO                           CHIEF, JPNATC
### Receipts and Payments for the Year Ended 31-03-2019

<table>
<thead>
<tr>
<th>receipt</th>
<th>2018-19 (Amount in Rupees)</th>
<th>2017-18 (Amount in Rupees)</th>
<th>payment</th>
<th>2018-19 (Amount in Rupees)</th>
<th>2017-18 (Amount in Rupees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Opening Balances</td>
<td></td>
<td></td>
<td>1. Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Cash in Hand</td>
<td>4.00</td>
<td>-</td>
<td>(a) Establishment Expenses (corresponding to schedule 20)</td>
<td>1,085,166,374.00</td>
<td>976,221,458.00</td>
</tr>
<tr>
<td>(b) Bank Balances</td>
<td>206,493,093.00</td>
<td>153,162,465.00</td>
<td>(b) Administrative Expenses (Corresponding to schedule 21A)</td>
<td>881,083,728.00</td>
<td>699,213,500.00</td>
</tr>
<tr>
<td>i) In current accounts</td>
<td></td>
<td></td>
<td>RTGS Charges and Other Bank Charges</td>
<td>4,956.00</td>
<td>6,430.00</td>
</tr>
<tr>
<td>ii) In deposit accounts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii) In saving accounts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Payments made against funds for various projects</td>
<td></td>
<td></td>
<td>2. Payments made against funds for various projects</td>
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<td>(a) Non-RPC Scheme</td>
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<td>(b) SAP</td>
<td>19,101,847.00</td>
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<td>3. Investments and deposits made</td>
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<td>3. Investments and deposits made</td>
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<tr>
<td>(a) Out of Earmarked/Endowment Funds</td>
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<tr>
<td>(b) Out of Own funds (Investments-others)</td>
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<td>(i) Grant in Aid (Plan) (Salaries)</td>
<td>1,085,166,374.00</td>
<td>980,000,000.00</td>
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<td>(ii) Grant In Aid (General)</td>
<td>840,000,000.00</td>
<td>680,000,000.00</td>
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<td>(iii) Grant in Aid (Capital Assets)</td>
<td>138,646,715.00</td>
<td>225,000,000.00</td>
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<td>(iv) Swachhta Action Plan</td>
<td>-</td>
<td>50,000,000.00</td>
<td>(a) Purchase of Fixed Assets</td>
<td>120,575,138.00</td>
<td>60,999,150.00</td>
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<td>(v) Grant from Ministry of Ayush</td>
<td>330,000.00</td>
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<td>(b) Expenditure on capital work-in-progress</td>
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<tr>
<td>(b) From state Government</td>
<td></td>
<td></td>
<td>(c) Custome Duty</td>
<td>5,000,000.00</td>
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<td>(d) Letter of Credit</td>
<td>13,071,577.00</td>
<td>114,097,564.00</td>
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<td>(c) From other sources (Schemes)</td>
<td>-</td>
<td>-</td>
<td>(a) To the Government of India</td>
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<td>53,681,828.00</td>
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<td>3. Income on Investment from</td>
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<td>(b) To the State Government</td>
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<tr>
<td>(a) Earmarked/Endow. Funds</td>
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<td>(c) To other providers of funds</td>
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<td>(b) Own funds (Oth. Investments)</td>
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<td>6. Finance Charges (Interest)</td>
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<td>(a) On bank deposits</td>
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<td>9,845,810.00</td>
<td>(b) Loans, Advances etc.</td>
<td>NIAF</td>
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<tr>
<td>(b) Loans, Advances etc.</td>
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<td>(a) Refund of Earnest Money Deposit</td>
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<td>(b) Employees Recovery payment</td>
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<td>(b) Computer</td>
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<td>(c) Recoveries from employees remitted to AIIMS (Main)</td>
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<tr>
<td>(b) Scooter</td>
<td>-</td>
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<td>(d) Outside Recoveries</td>
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<td>----------------------------------------------------------------------------</td>
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<td>5. Other Income</td>
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<tr>
<td>iii) GPF (Subscription and Advances)</td>
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<tr>
<td>iv) NPS Recovery</td>
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<td></td>
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<td>v) NPS Recovery with PRAN</td>
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<td>(i) Hospital Receipts</td>
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<td>(ii) Fee</td>
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<td>6. Amount Borrowed</td>
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<td>Loan, Advances and Other Assets</td>
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<td>7. Any other receipts</td>
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<tr>
<td>(a) NIAF</td>
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<tr>
<td>(i) Recoveries from employees (Festival)</td>
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<tr>
<td>(ii) Outside Recoveries</td>
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<td>(iii) GPF (Subscription and Advances)</td>
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<td>(iv) NPS Recovery</td>
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<tr>
<td>v) NPS fund received from NSDL</td>
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<tr>
<td>(i) In current accounts</td>
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<tr>
<td>(ii) In deposit accounts</td>
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<td>(iii) In saving accounts</td>
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<tr>
<td>Recovery/Deductions (other than Engg Works)</td>
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<td>8. Closing Balances</td>
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<td>Car Advance Recovery</td>
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<td>Computer Advance Recovery</td>
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<td>House Building Advance Recovery</td>
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<tr>
<td>Festival Advance Recovery</td>
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<tr>
<td>Recovery/Deductions (Engg Works)</td>
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<td>Predict Receipts/Grant</td>
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<td>PROJECT</td>
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<td>CANCEL CHEQUE</td>
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<td>M&amp;E Liabilities</td>
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<tr>
<td>Engg. Liabilities</td>
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<tr>
<td>Total</td>
<td>2,335,309,572.82</td>
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<tr>
<td>Total</td>
<td>2,129,731,946.00</td>
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### SCHEDULE 1 - CORPUS/CAPITAL FUND:

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<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
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</thead>
<tbody>
<tr>
<td>Balances as at the beginning of the year</td>
<td>2982352665</td>
<td>2856911795</td>
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<tr>
<td>Add : Contributions towards Corpus/Capital Fund</td>
<td>138646715</td>
<td>175096714</td>
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<tr>
<td>Less : Fixed Assets Condemned during the year</td>
<td>40331136</td>
<td>3080668244</td>
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<tr>
<td><strong>BALANCE AS AT THE YEAR-END</strong></td>
<td>3080668244</td>
<td>2982352665</td>
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</table>

### SCHEDULE 2 - RESERVES AND SURPLUS:

1. **Capital Reserve:**
   - As per last Account
   - Addition during the year
   - Less: Deductions during the year

2. **Revaluation Reserve**
   - As per last Account
   - Addition during the year
   - Less: Deductions during the year

3. **Special Reserves**
   - As per last Account
   - Addition during the year
   - Less: Deductions during the year

4. **General Reserve**
   - As per last Account
   - Addition during the year
   - Less: Deductions during the year

<table>
<thead>
<tr>
<th>Current Year</th>
<th>2018-19</th>
<th>2017-18</th>
<th>TOTAL</th>
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<tbody>
<tr>
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<td>162126645</td>
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### SCHEDULE 3 - EARMARKED/ENDOWMENT FUNDS

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<th>Scheme</th>
<th>Non-JPNATC</th>
<th>TOTALS</th>
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<tbody>
<tr>
<td></td>
<td>RIA Lab</td>
<td>SAP</td>
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<tr>
<td>a) Opening balance of the funds</td>
<td>41650</td>
<td>45688405</td>
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<td>b) Additions to the Funds:</td>
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<tr>
<td>i. Donations/grants from AYUSH</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ii. Income from investments made on account of funds</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>iii. Other additions (specify nature)</td>
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<td></td>
</tr>
<tr>
<td>iv. Less Expenditure during the year</td>
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<tr>
<td>TOTAL (a+b)</td>
<td>41650</td>
<td>45688405</td>
</tr>
<tr>
<td>c) Utilisation/Expenditure towards objectives of funds</td>
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<td></td>
</tr>
<tr>
<td>i. Capital Expenditure</td>
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<td></td>
</tr>
<tr>
<td>- Fixed Assets</td>
<td>19101847</td>
<td>4311595</td>
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<tr>
<td>- Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Revenue Expenditure</td>
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<td></td>
</tr>
<tr>
<td>- Salaries, Wages and allowances etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rent</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Other Administrative expenses</td>
<td></td>
<td></td>
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<tr>
<td>Total</td>
<td>19101847</td>
<td>0</td>
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<tr>
<td>TOTAL (c)</td>
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<tr>
<td>NET BALANCE AS AT THE YEAR-END (a+b-c)</td>
<td>41650</td>
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*Swachhta Action Plan*
<table>
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<tr>
<th>Schedule 4 - Secured Loans and Borrowings:</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
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<tbody>
<tr>
<td>1. Central Government</td>
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<tr>
<td>2. State Government</td>
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</tr>
<tr>
<td>3. Financial Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Interest accrued and due</td>
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<td></td>
</tr>
<tr>
<td>4. Banks</td>
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<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
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<tr>
<td>- Interest accrued and due</td>
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<td></td>
</tr>
<tr>
<td>b) Other Loans (specify)</td>
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<tr>
<td>- Interest accrued and due</td>
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<td></td>
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<tr>
<td>5. Other Institutions and Agencies</td>
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<td></td>
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<tr>
<td>6. Debentures and Bonds</td>
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<td></td>
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<tr>
<td>7. Others (Specify)</td>
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<tr>
<td><strong>TOTAL</strong></td>
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(Amount in Rupees)

F&CAO
SCHEDULE 5 - UNSECURED LOANS AND BORROWING

| 2. State Government |
| 3. Financial Institutions |
| 4. Banks: |
| a) Term Loans |
| b) Other Loans (specify) |
| 5. Other Institutions and Agencies |
| 6. Debentures and Bonds |
| 7. Fixed Deposits |
| 8. Others (Specify) |
| **TOTAL** | 0 | 0 |

SCHEDULE 6 - DEFERRED CREDIT LIABILITIES:

|  | Current Year | Previous Year |
|  | 0 | 0 |

- a) Acceptances secured by hypothecation of capital equipment and other assets
- b) Others

**TOTAL**

F&CAO
### A. CURRENT LIABILITIES AND PROVISIONS

<table>
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<tr>
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<th>2017-18</th>
</tr>
</thead>
<tbody>
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<td>1. Acceptances</td>
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<td></td>
</tr>
<tr>
<td>2. Sundry Creditors:</td>
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<td></td>
</tr>
<tr>
<td>a) For Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Advances Received for patients from Govt Agencies</td>
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<td></td>
</tr>
<tr>
<td>i) NIAF</td>
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<td></td>
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<tr>
<td>Opening Balance</td>
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<tr>
<td>Received during the year</td>
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<tr>
<td>Expenditure during the year</td>
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<tr>
<td>4. Projects Grants</td>
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<tr>
<td>ii) NPCB</td>
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<td>5. Interest accrued but not due on:</td>
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<tr>
<td>a) Secured Loans/borrowings</td>
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<tr>
<td>a) Unsecured Loans/borrowings</td>
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<td>6. Statutory Liabilities:</td>
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<td>a) Overdue</td>
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<td>a) Others</td>
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<td>7. Security Deposits (EMD)</td>
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<td>9710968</td>
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<td>Refund during the year</td>
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<td>37152808</td>
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<td>10. Custom Duty to be paid to Store (D.O.)</td>
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<tr>
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### B. PROVISIONS

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<td>2. Gratuity</td>
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<td>3. Superannuation/Pension</td>
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<td>6. Accumulated Leave Encashment</td>
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<td></td>
</tr>
<tr>
<td>6. Trade Warranties/Claims</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL (B)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL (A+B)</td>
<td>46214776</td>
<td>37468957</td>
</tr>
</tbody>
</table>
### Schedule 8-Fixed Assets

<table>
<thead>
<tr>
<th>DISCRIPTION</th>
<th>GROSS BLOCK</th>
<th>DEPRICIATION</th>
<th>NET BLOCK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>As at beginning of the year</td>
<td>Additions during the year</td>
<td>Deductions during the year</td>
</tr>
<tr>
<td><strong>A. FIXED ASSETS:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 LAND:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Freehold</td>
<td>54310794</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Leasehold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 BUILDINGS:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Freehold Land</td>
<td>689076549</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b) On Leasehold Land</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Ownership Flats/Premises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Superstructures on Land not belonging to the entity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 PLANT MACHINERY &amp; EQUIPMENT</td>
<td>2114916592</td>
<td>144869903</td>
<td>40331136</td>
</tr>
<tr>
<td>4 VEHICLES</td>
<td>8395972</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5 FURNITURE, FIXTURES</td>
<td>15294125</td>
<td>3333727</td>
<td>0</td>
</tr>
<tr>
<td>6 OFFICE EQUIPMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 COMPUTER/PERIPHERALS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 ELECTRIC INSTALLATIONS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 LIBRARY BOOKS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 TUBEWELLS &amp; W. SUPPLY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 OTHER FIXED ASSETS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL OF CURRENT YEAR</strong></td>
<td>2881994032</td>
<td>148203630</td>
<td>40331136</td>
</tr>
<tr>
<td><strong>B. CAPITAL WORK-IN-PROGRESS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Purchased of Assets (M&E) During the Year

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets During the Year as per Receipts and Payment Account</td>
<td>138,646,715.00</td>
</tr>
<tr>
<td>Less - Furniture Purchased during the Year</td>
<td>3,333,727.00</td>
</tr>
<tr>
<td>Less - L.C. Margin During the Year (Seperately showed in Schedule 11)</td>
<td>13,071,577.00</td>
</tr>
<tr>
<td>Less - M&amp;E Payable Set off during the Year</td>
<td>-</td>
</tr>
<tr>
<td>Less - Custom Duty Incorporation during the year</td>
<td>5,000,000.00</td>
</tr>
<tr>
<td>Add - Custom Duty Incorporation Adjusted during the Year</td>
<td>117,241,411.00</td>
</tr>
<tr>
<td>Add - PDA Incorporation Adjusted during the Year</td>
<td>27,386,132.00</td>
</tr>
<tr>
<td>Net Assets (M&amp;E) Purchased during the year</td>
<td>144,869,903.00</td>
</tr>
</tbody>
</table>
### Schedule 9 - Investments from Earmarked / Endowment Funds

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Government Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Other approved Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others (to be specified)</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Schedule 10 - Investments - Others

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Government Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Other approved Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others (to be specified)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

F&CAO
### SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC.

#### (Amount in Rupees)

<table>
<thead>
<tr>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> CURRENT ASSETS:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Advances for Procurement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) M&amp;E Foreign Purchases</td>
<td>Opening Balance</td>
<td>76007023</td>
</tr>
<tr>
<td></td>
<td>Addition during the year</td>
<td>13071577</td>
</tr>
<tr>
<td></td>
<td>Adjusted during the year</td>
<td>89078600</td>
</tr>
<tr>
<td>b) Material and Supply</td>
<td>Opening Balance</td>
<td>76007023</td>
</tr>
<tr>
<td></td>
<td>Addition during the year</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adjusted during the year</td>
<td></td>
</tr>
<tr>
<td>c) Stock-in-trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Sundry Debtors:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Debts Outstanding for a period exceeding six months</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>3. Cash balances in hand (including cheques/ drafts and imprest)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Bank Balances:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Current Accounts</td>
<td></td>
<td>204653632.8</td>
</tr>
<tr>
<td>On Deposit Accounts (includes margin money)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) With non-Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Current Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Deposit Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. PDA Advance</td>
<td>Opening balance</td>
<td>7951625</td>
</tr>
<tr>
<td></td>
<td>adjusted during the year</td>
<td>242360</td>
</tr>
<tr>
<td></td>
<td>55080</td>
<td>4922595</td>
</tr>
<tr>
<td>6. Custom Duty Advance</td>
<td>Opening Balance</td>
<td>326101347.8</td>
</tr>
<tr>
<td>Added during the year</td>
<td>5000000</td>
<td>1334680</td>
</tr>
<tr>
<td>Adjusted during the year</td>
<td>2736132</td>
<td>9676170</td>
</tr>
<tr>
<td>4922595</td>
<td>326101347.8</td>
<td></td>
</tr>
<tr>
<td>7. Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. HSCC</td>
<td></td>
<td>6500000</td>
</tr>
<tr>
<td>b. NDMC</td>
<td></td>
<td>5979000</td>
</tr>
<tr>
<td>c. IGL</td>
<td></td>
<td>1334680</td>
</tr>
<tr>
<td>d. TRIGEN</td>
<td></td>
<td>1170000</td>
</tr>
<tr>
<td>8. TOTAL (A)</td>
<td></td>
<td>326101347.8</td>
</tr>
</tbody>
</table>
### Schedule 11 - Current Assets, Loans, Advances Etc. (Contd.)

<table>
<thead>
<tr>
<th>LOANS, ADVANCES AND OTHER ASSETS</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1. Loans:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Motor car</td>
<td>Opening Balance</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Less: Recovered during the year</td>
<td>0</td>
</tr>
<tr>
<td>ii) House Building Advance</td>
<td>Opening Balance</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Less: Recovered during the year</td>
<td>0</td>
</tr>
<tr>
<td>iii) Computer Advance</td>
<td>Opening Balance</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Less: Recovered during the year</td>
<td>0</td>
</tr>
<tr>
<td>iv) Festival Advance</td>
<td>Opening Balance</td>
<td>159150</td>
</tr>
<tr>
<td></td>
<td>Less: Recovered during the year</td>
<td>159150</td>
</tr>
<tr>
<td></td>
<td>Add: Addition during the year</td>
<td>0</td>
</tr>
<tr>
<td><strong>2. Advances and other amounts recoverable in cash or in kind or for value to be received:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Capital Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Prepayments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Income Accrued:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Investments from Earmarked / Endowment Funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) On Investments - Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) On Loans and Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(includes income due unrealised - Rs......)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Claims Receivable:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (B)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (A + B)</strong></td>
<td></td>
<td>337497727</td>
</tr>
</tbody>
</table>

All India Institute of Medical Sciences, New Delhi
Jai Prakash Narayan Apex Trauma Centre

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)
### SCHEDULE 12 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1) Income from Sales</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Hospital receipts</td>
<td>32445169</td>
<td>10005887</td>
</tr>
<tr>
<td>2. Administrative charges</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. NSDL Employee's Share</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4. NSDL Employer's Share</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>2) Income from Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Labour and Processing Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Professional/Consultancy Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Agency Commission and Brokerage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Maintenance Services</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>e) Others (Specify) Fees</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>32445169</td>
<td>10005887</td>
</tr>
</tbody>
</table>

### SCHEDULE 13 - GRANTS / SUBSIDIES

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1) Income from Sales</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Irrevocable Grants &amp; Subsidies Received)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Central Government (Through AIIMS Main)</td>
<td>1925166374</td>
<td>1656221458</td>
</tr>
<tr>
<td>2. State Government[s]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Government Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Institutions/Welfare Bodies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. International Organisations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others (Specify) Grant from Ministry of Ayush</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1925166374</td>
<td>1656221458</td>
</tr>
</tbody>
</table>
### SCHEDULE 14 - FEES/SUBSCRIPTIONS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tuition &amp; Examination Fee</td>
<td></td>
<td></td>
<td>28585</td>
<td></td>
</tr>
<tr>
<td>2. Licence Fee</td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. Seminar/Program Fees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Consultancy Fees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Others (Specify) EHS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### SCHEDULE 15 - INCOME FROM INVESTMENTS

<table>
<thead>
<tr>
<th>Investment from Earmarked Fund</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TRANSFERRED TO EARMARKED/EDNOWMENT FUNDS</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

F&CAO
## All India Institute of Medical Sciences, New Delhi

### Schedules Forming Part of Income & Expenditure for the Year Ended 31-03-2019

(Amount in Rupees)

### Schedule 16 - Income from Royalty, Publication Etc.

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Income from Royalty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Income from Publications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Others (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

### Schedule 17 - Interest Earned

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. On Term Deposits:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks</td>
<td>13752061</td>
<td>9845810</td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) With Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. On Savings Accounts:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Post Office Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. On Loans:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Employees/Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Interest on Debtors and other Receivables</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>13752061</td>
<td>9845810</td>
</tr>
</tbody>
</table>

F&CAO
## All India Institute of Medical Sciences, New Delhi

Jai Prakash Narayan Apex Trauma Centre

**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019**

### SCHEDULE 18 - OTHERS INCOME

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Misc. Receipt</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>2. Estb. Receipt (Scheme)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Others (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

### SCHEDULE 19 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Closing stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Less: Opening Stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NET INCREASE/(DECREASE) [a+b]</strong></td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

### SCHEDULE 20 - ESTABLISHMENT EXPENSES

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and Wages</td>
<td>1081937255</td>
<td>973583321</td>
</tr>
<tr>
<td>Allowances and Bonus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travelling Allowances</td>
<td>3229119</td>
<td>2638137</td>
</tr>
<tr>
<td>Contribution to NPS</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Contribution to Other Fund (Scheme Cell)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Welfare Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expenses on Employees &quot;Retirement and Terminal Benefits&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (NPS &amp; LSPC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,085,166,374.00</td>
<td>976221458</td>
</tr>
</tbody>
</table>

F&CAO
<table>
<thead>
<tr>
<th>Category</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Purchases (Material and Supply)</td>
<td>489153948</td>
<td>383285939</td>
</tr>
<tr>
<td>b) Material received against advance paid during last years</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>c) Office Expenses</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>d) Securities</td>
<td>68571200</td>
<td>53231411</td>
</tr>
<tr>
<td>e) Other Outsourcing Agency</td>
<td>100782470</td>
<td>97868920</td>
</tr>
<tr>
<td>f) Administrative Charges (Projects)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>g) Engg. Maintenances</td>
<td>191553312</td>
<td>129284145</td>
</tr>
<tr>
<td>h) Bank charges</td>
<td>4956</td>
<td>6430</td>
</tr>
<tr>
<td>i) Rent, Rates and Taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j) Vehicles, Running and Maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k) Postage, Telephone and Communication Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l) Printing and Stationary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m) Travelling and Conveyance Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n) Expenses on Seminar/Workshops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o) Subscription Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p) Expenses on Sanitation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>q) Maintaince of Buildings (Minor Work RG)</td>
<td>3144063</td>
<td>14482030</td>
</tr>
<tr>
<td>r) Maintaince of M&amp;E (CAMC/AMC)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>s) Maintaince of Building (Non-plan)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>t) Provision for Bad and Doubtful Debts/Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>u) Irrecoverable Balances Written-off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v) Swap Charges (IDBI Debit/Credit Card Commission)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>w) Freight and Forwarding Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x) Distribution Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>y) Insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>z) Advertisement and Publicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aa) Others (specify) (Contingency charge)</td>
<td>24800718</td>
<td>21061055</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>878010667</strong></td>
<td><strong>699219930</strong></td>
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</table>

F&CAO
### CORPUS/CAPITAL FUND AND LIABILITIES

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>630,151,200</td>
<td>610,062,779</td>
</tr>
<tr>
<td>2</td>
<td>30,507,482</td>
<td>23,423,070</td>
</tr>
<tr>
<td>3</td>
<td>52,325,359</td>
<td>53,868,326</td>
</tr>
<tr>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>7,773,112</td>
<td>12,023,656</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>720,757,153</strong></td>
<td><strong>699,377,831</strong></td>
</tr>
</tbody>
</table>

### ASSETS

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>623,297,295</td>
<td>602,573,055</td>
</tr>
<tr>
<td>9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>97,459,858</td>
<td>96,804,776</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>720,757,153</strong></td>
<td><strong>699,377,831</strong></td>
</tr>
</tbody>
</table>

### SIGNIFICANT ACCOUNTING POLICIES

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>25</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(Accounts Officer)
CDER

Chief, CDER
**Name of Entity**: CENTRE FOR DENTAL EDUCATION & RESEARCH  
**FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD/YEAR ENDED 31-03-2019**

### INCOME

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>2183330</td>
<td>2,310,620</td>
</tr>
<tr>
<td>13</td>
<td>192435117</td>
<td>153,497,549</td>
</tr>
<tr>
<td>14</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>15</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>16</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>17</td>
<td>3837361</td>
<td>1,072,525</td>
</tr>
<tr>
<td>18</td>
<td>219801</td>
<td>76,288</td>
</tr>
<tr>
<td>19</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**TOTAL (A)**: 198675609 - 156,956,982

### EXPENDITURE

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>64935117</td>
<td>50997549</td>
</tr>
<tr>
<td>21</td>
<td>126630245</td>
<td>104,759,531</td>
</tr>
<tr>
<td>21 (A)</td>
<td>23420</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>23</td>
<td>2415</td>
<td>2415</td>
</tr>
<tr>
<td>24</td>
<td>7084412</td>
<td>1,197,217</td>
</tr>
</tbody>
</table>

**TOTAL (B)**: 191591197 - 155,759,765

**Balance being excess of Income over Expenditure (A-B)**: 7084412 - 1,197,217

**SIGNIFICANT ACCOUNTING POLICIES**

**CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS**

Chief, CDER (Accounts Officer) CDER
## CENTRE FOR DENTAL EDUCATION & RESEARCH
### ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NEW DELHI
#### RECEIPTS AND PAYMENTS FOR THE PERIOD/YEAR ENDED 31.03.2019

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Cash in Hand</td>
<td>5000</td>
<td>5000</td>
<td>a) Establishment Expenses (Schedule 20)</td>
<td>64935117</td>
<td>50997549</td>
</tr>
<tr>
<td>b) Bank Balances</td>
<td></td>
<td></td>
<td>b) Administrative Expenses (Schedule 21A)</td>
<td>126630245</td>
<td>104759531</td>
</tr>
<tr>
<td>i) In current accounts</td>
<td>87038803</td>
<td>36489313</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii) In deposit accounts</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii) Saving accounts</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>II. Grants Received</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) From Government of India (Through AIIMS Main)</td>
<td>Dental Council of India</td>
<td>21000</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Capital (Assets New)</td>
<td>Patient Treatment fund</td>
<td>1475478</td>
<td>823580</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Grant-in-Aid (Plan)</td>
<td>Project MoHFW</td>
<td>99720</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>(Return to AIIMS Main)</td>
<td>Project NOHP</td>
<td>3876581</td>
<td>381436</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Revenue General</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Grant-in-Aid (Salary)</td>
<td>Project SUGAR</td>
<td>3000</td>
<td>5769</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>(Return to AIIMS Main)</td>
<td>Project Web &amp; Mobile App</td>
<td>-</td>
<td>355000</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>b) Grant-in-Aid (General)</td>
<td>Workshop Drafting Policy</td>
<td>18177</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>c) From State Government</td>
<td></td>
<td></td>
<td>Swachhta Action Plan (SAP)</td>
<td>2709125</td>
<td>2053027</td>
</tr>
<tr>
<td>d) From other sources</td>
<td></td>
<td></td>
<td>WHO</td>
<td>9435</td>
<td>-</td>
</tr>
<tr>
<td>e) Grants received for specific purpose</td>
<td></td>
<td></td>
<td>WHO (MOOC)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Funds received for various projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dental Council Of India</td>
<td></td>
<td></td>
<td>a) out of Earmarked/Endow. Funds</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Patient Treatment fund</td>
<td>21000</td>
<td></td>
<td>b) out of Own Funds (Other Investment)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1509200</td>
<td>1202580</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IV. Expenditure on Fixed Assets &amp; Capital Work-in-Progress</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project MoHWF</td>
<td></td>
<td>99720</td>
<td>a) Purchase of Fixed Assets</td>
<td>14282562</td>
<td>23358742</td>
</tr>
<tr>
<td>Project NOHP</td>
<td>4337440</td>
<td>1400000</td>
<td>b) Expenditure on Capital Work-in-Progress</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Project PIT &amp; FISSURE</td>
<td>236914</td>
<td>252000</td>
<td>c) Letter of Credit</td>
<td>5805859</td>
<td>3902002</td>
</tr>
<tr>
<td>Project SUGAR</td>
<td>-</td>
<td>42693</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Web &amp; Mobile App</td>
<td>-</td>
<td>4391972</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshop Drafting Policy</td>
<td>300000</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swachhta Action Plan (SAP)</td>
<td>-</td>
<td>50000000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHO</td>
<td>96225</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHO (MOOC)</td>
<td>400000</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>V. Refund of Surplus money/loans</strong></td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) To the Government of India</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) To the State Government</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) To other providers of funds</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**III. Income on Investments from**

| a) Earmarked/Endow. Funds | - | - |
| b) Own Funds(Oth. Investment) | - | - |

**VI. Finance Charges (Interest)**

| - | 2415 | 2685 |

**IV. Interest Received**

| a) On Bank deposits | 3837361 | 1072525 |
| b) Loans, Advances etc. | - | - |

**VII. Other Payments**

| a) Employee Recovery | 20687167 | 16344061 |
| b) Outside Recovery | 1538030 | 727469 |
| c) Engg. Recovery | 3347544 | - |
| d) Contingency Advance | - | 25000 |
| e) EMD | 1181000 | 2227000 |

**VI. Amount Borrowed**

| a) Cash in Hand | 5000 | 5000 |
| b) Bank Balances | - | - |
| i) In current accounts | 88354704.02 | 87038803 |
| ii) In deposit accounts | - | - |
| iii) saving accounts | - | - |
| TOTAL | 335213389 | 296452477 |

**VIII. Closing Balances**

| Hospital Receipt | 2183330 | 2310620 |
| Miscellaneous Receipt | 219801 | 76288 |

**Chief, CDER**

**Accounts Officer (CDER)**
## SCHEDULE 1 - CORPUS/CAPITAL FUND:

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balances as at the beginning of the year</td>
<td>610,062,779</td>
<td>610062779</td>
</tr>
<tr>
<td>Add: Contributions towards Corpus/Capital Fund</td>
<td>20,088,421</td>
<td></td>
</tr>
<tr>
<td>Less: Fixed Assets Condemned during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BALANCE AS AT THE YEAR-END</strong></td>
<td><strong>630,151,200</strong></td>
<td><strong>610,062,779</strong></td>
</tr>
</tbody>
</table>

## SCHEDULE 2 - RESERVES AND SURPLUS:

<table>
<thead>
<tr>
<th>Reserve Type</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Capital Reserve:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As per last Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Addition during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: Deductions during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Revaluation Reserve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As per last Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Addition during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: Deductions during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Special Reserves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As per last Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Addition during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: Deductions during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. General Reserve</td>
<td>23,423,070</td>
<td>23423070</td>
</tr>
<tr>
<td>As per last Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Addition during the year</td>
<td>7,084,412</td>
<td></td>
</tr>
<tr>
<td>Less: Deductions during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>30,507,482</strong></td>
<td><strong>23423070</strong></td>
</tr>
</tbody>
</table>

(Accounts Officer) CDER
## Schedule 3 - Earmarked/Endowment Funds

**Name of Entity: CENTRE FOR DENTAL EDUCATION & RESEARCH**

**Schedule Forming Part of Balance Sheet As at 31-03-2019**

<table>
<thead>
<tr>
<th>FUND-WISE BREAK UP</th>
<th>NHO Fund</th>
<th>SAP Fund</th>
<th>Sugar Fund</th>
<th>Pit &amp; Fissure</th>
<th>Web &amp; Mobile App Project</th>
<th>Patient Treatment</th>
<th>Dental Council of India</th>
<th>WHO</th>
<th>WHO (MOOC)</th>
<th>Workshop Drafting Policy</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Opening balance of the funds</td>
<td>4,562,560</td>
<td>47,946,975</td>
<td>36,924</td>
<td>100,897</td>
<td>841,972</td>
<td>379,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>53,868,326</td>
<td>354,996</td>
</tr>
<tr>
<td>b) Additions to the Funds:</td>
<td>4,337,440</td>
<td>-</td>
<td>-</td>
<td>236,914</td>
<td>-</td>
<td>1,509,200</td>
<td>21,000</td>
<td>96,225</td>
<td>400,000</td>
<td>300,000</td>
<td>6,900,779</td>
<td>573,889</td>
</tr>
<tr>
<td>i. Donations/grants</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ii. Income from investments made on account of funds</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>iii. Other additions (specify nature)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL (a+b)</td>
<td>8,900,000</td>
<td>47,946,975</td>
<td>36,924</td>
<td>337,811</td>
<td>841,972</td>
<td>1,888,200</td>
<td>21,000</td>
<td>96,225</td>
<td>400,000</td>
<td>300,000</td>
<td>60,769,105</td>
<td>693,296</td>
</tr>
<tr>
<td>c) Utilisation/Expenditure towards objectives of funds</td>
<td>8,876,581</td>
<td>2,709,125</td>
<td>3,000</td>
<td>330,950</td>
<td>1,475,478</td>
<td>21,000</td>
<td>9,435</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8,443,746</td>
<td>706,463</td>
</tr>
<tr>
<td>i. Capital Expenditure</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Fixed Assets</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Others</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ii. Revenue Expenditure</td>
<td>8,876,581</td>
<td>2,709,125</td>
<td>3,000</td>
<td>330,950</td>
<td>1,475,478</td>
<td>21,000</td>
<td>9,435</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8,443,746</td>
<td>706,463</td>
</tr>
<tr>
<td>- Salaries, Wages and allowances etc.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Rent</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Other Administrative expenses</td>
<td>8,876,581</td>
<td>2,709,125</td>
<td>3,000</td>
<td>330,950</td>
<td>1,475,478</td>
<td>21,000</td>
<td>9,435</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8,443,746</td>
<td>706,463</td>
</tr>
<tr>
<td>Total</td>
<td>8,876,581</td>
<td>2,709,125</td>
<td>3,000</td>
<td>330,950</td>
<td>1,475,478</td>
<td>21,000</td>
<td>9,435</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8,443,746</td>
<td>706,463</td>
</tr>
<tr>
<td>TOTAL (c)</td>
<td>8,876,581</td>
<td>2,709,125</td>
<td>3,000</td>
<td>330,950</td>
<td>1,475,478</td>
<td>21,000</td>
<td>9,435</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8,443,746</td>
<td>706,463</td>
</tr>
<tr>
<td>NET BALANCE AS AT THE YEAR-END (a+b-c)</td>
<td>5,023,419</td>
<td>45,237,848</td>
<td>33,924</td>
<td>6,861</td>
<td>841,972</td>
<td>412,722</td>
<td>-</td>
<td>86,790</td>
<td>400,000</td>
<td>281,823</td>
<td>52,325,359</td>
<td>53,868,326</td>
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</tbody>
</table>

### Notes:
1) Disclosures shall be made under relevant heads based on conditions attaching to the grants.
2) Plan Funds received from the Central/State Governments are to be shown as separate Funds and not to be mixed up with any other Funds.

(Amount Rs.)
### SCHEDULE 4 - SECURED LOANS AND BORROWINGS:

<table>
<thead>
<tr>
<th>1. Central Government</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2. State Government</td>
<td></td>
</tr>
<tr>
<td>3. Financial Institutions</td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
</tr>
<tr>
<td>b) Interest accrued and due</td>
<td></td>
</tr>
<tr>
<td>4. Banks:</td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td></td>
</tr>
<tr>
<td>b) Other Loans (specify)</td>
<td></td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td></td>
</tr>
<tr>
<td>5. Other Institutions and Agencies</td>
<td></td>
</tr>
<tr>
<td>6. Debentures and Bonds</td>
<td></td>
</tr>
<tr>
<td>7. Others (Specify)</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
</tr>
</tbody>
</table>

*Note: Amounts due within one year*

### SCHEDULE 5 - UNSECURED LOANS AND BORROWING

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Central Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. State Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Financial Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Other Loans (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Other Institutions and Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Fixed Deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Note: Amounts due within one year*

### SCHEDULE 6 - DEFERRED CREDIT LIABILITIES:

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Acceptances secured by hypothecation of capital equipment and other assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Note: Amount due within one year*
<table>
<thead>
<tr>
<th>SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. CURRENT LIABILITIES AND PROVISIONS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Acceptances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Sundry Creditors:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) For Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Advances Received</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Interest accrued but not due on:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Secured Loans/borrowings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Unsecured Loans/borrowings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Statutory Liabilities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Overdue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Other current Liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: Paid during the year</td>
<td></td>
<td>3,347,544</td>
</tr>
<tr>
<td>Addition : Created during the year</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>7. Security Deposits (Opening Balance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add: Received during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: Refunded during the year</td>
<td>7,773,112</td>
<td>8,676,112</td>
</tr>
<tr>
<td>TOTAL (A)</td>
<td>7,773,112</td>
<td>12,023,656</td>
</tr>
<tr>
<td>B. PROVISIONS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. For Taxation</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Gratuity</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Superannuation/Pension</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6. Accumulated Leave Encashment</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6. Trade Warranties/Claims</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6. Others (specify)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL (B)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL (A+B)</td>
<td>7,773,112</td>
<td>12,023,656</td>
</tr>
</tbody>
</table>

(Accounts Officer)
CDER
### Schedule 8: Fixed Assets

#### Description

<table>
<thead>
<tr>
<th>DISCUSSION</th>
<th>CURRENT YEAR</th>
<th>PREVIOUS YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LAND:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Freehold</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Leasehold</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BUILDINGS:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Freehold Land</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) On Leasehold Land</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Ownership Flats/Premises</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Superstructures on Land not belonging to the entity</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ELECTRIC INSTALLATIONS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LIBRARY BOOKS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TUBEWELLS &amp; W. SUPPLY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OTHER FIXED ASSETS</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Depreciation

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>CURRENT YEAR</th>
<th>PREVIOUS YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>As at Current Year-end</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As at Previous Year-end</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL OF CURRENT YEAR</strong></td>
<td>602,573,055</td>
<td>602,573,055</td>
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</tbody>
</table>

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(Amount - Rs.)

(Accounts Officer)  
CDER
### Schedule 9 - Investments from Earmarked / Endowment Funds

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Government Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Other approved Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others (to be specified)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Schedule 10 - Investments - Others

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Government Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Other approved Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others (to be specified)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
### SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC.

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CURRENT ASSETS:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Inventories:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Stores and Spares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Loose Tools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Stock-in-trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Sundry Debtors:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Debts Outstanding for a period exceeding six months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Cash balances in hand (including cheques/drafts and imprest)</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>4. Bank Balances:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Current Accounts</td>
<td>88,354,704</td>
<td>87,038,803</td>
</tr>
<tr>
<td>On Deposit Accounts (includes margin money)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) With non-Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Current Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Deposit Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Post Office - Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td>88,359,704</td>
<td>87,043,803</td>
</tr>
</tbody>
</table>

(Accounts Officer)  CDER
<table>
<thead>
<tr>
<th>LOANS, ADVANCES AND OTHER ASSETS</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Loans:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Other Entities engaged in activities/objectives similar to that of Entity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Other (specify) Advance to Iron &amp; steel and Hindustan steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Advances and other amounts recoverable in cash or in kind or for value to be received:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Capital Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Prepayments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Income Accrued:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Investments from Earmarked / Endowment Funds</td>
<td>2364500</td>
<td>2364500</td>
</tr>
<tr>
<td>b) On Investments - Others</td>
<td>3000000</td>
<td>3000000</td>
</tr>
<tr>
<td>c) On Loans and Advances</td>
<td>469471</td>
<td>469471</td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(includes income due unrealised - Rs......)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Claims Receivable:</strong></td>
<td>9100154</td>
<td>9760973</td>
</tr>
<tr>
<td><strong>5. Other Advance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Advance Paid to NDMC</td>
<td>3902002</td>
<td>3266183</td>
</tr>
<tr>
<td>ii. Security Deposit to NDMC</td>
<td>3000000</td>
<td>3000000</td>
</tr>
<tr>
<td>iii. Advance paid to DGS&amp;D</td>
<td>469471</td>
<td>469471</td>
</tr>
<tr>
<td>iv. Letter of Credit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Balance</td>
<td>3902002</td>
<td>3266183</td>
</tr>
<tr>
<td>LC Issued</td>
<td>5805859</td>
<td></td>
</tr>
<tr>
<td>Machinery Rec.</td>
<td>6441678</td>
<td></td>
</tr>
<tr>
<td>Closing Balance</td>
<td>3,266,183</td>
<td></td>
</tr>
<tr>
<td>v. Contingency Advance</td>
<td></td>
<td>25000</td>
</tr>
<tr>
<td><strong>TOTAL (B)</strong></td>
<td>9100154</td>
<td>9760973</td>
</tr>
<tr>
<td><strong>TOTAL (A + B)</strong></td>
<td>97459858</td>
<td>96804776</td>
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</table>

(Accounts Officer)
CDER
### Schedule 12 - Investments from Earmarked / Endowment Funds

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Income from Sales</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Sale of Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Sale of Raw Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sale of Scraps</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Income from Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Labour and Processing Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Professional / Consultancy Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Agency Commission and Brokerage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Maintenance Services (Equipment/Property)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Others (Specify) Hospital Receipt</td>
<td>2183330</td>
<td>2310620</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2183330</td>
<td>2310620</td>
</tr>
</tbody>
</table>

### Schedule 13 - Grants / Subsidies

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Income from Sales</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Irrevocable Grants &amp; Subsidies Received)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Central Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. State Government(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Government Agencies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grant in Aid (Salary)</td>
<td>64935117</td>
<td>50997549</td>
</tr>
<tr>
<td>Grant in Aid (General)</td>
<td>127500000</td>
<td>102500000</td>
</tr>
<tr>
<td><strong>4. Institutions / Welfare Bodies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5. International Organisations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6. Others (Specify)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>192435117</td>
<td>153497549</td>
</tr>
</tbody>
</table>

(Accounts Officer)
CDER
### SCHEDULE 14 - FEES/SUBSCRIPTIONS

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tuition &amp; Examination Fee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Licence Fee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Seminar/Program Fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Consultancy Fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Others (Specify) EHS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Note**: Accounting Policies towards each item are to be disclosed

### SCHEDULE 15 - INCOME FROM INVESTMENTS

<table>
<thead>
<tr>
<th>(Income on Invest. From Earmarked/Endowment Funds transferred to Funds)</th>
<th>Investment from Earmarked Fund</th>
<th>Investment-Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current Year</td>
<td>Previous Year</td>
</tr>
<tr>
<td>1. Interest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Govt. Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Other Bonds/Debentures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Dividends:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Mutual Fund Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Rents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Others (Specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**

**TRANSFERRED TO EARMARKED/EDNOWMENT FUNDS**
### SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ETC.

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Income from Royalty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Income from Publications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Others (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SCHEDULE 17 - INTEREST EARNED

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. On Term Deposits:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks</td>
<td>3837361</td>
<td>1072525</td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) With Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. On Savings Accounts:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Post Office Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. On Loans:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Employees/Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Interest on Debtors and other Receivables</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3837361</td>
<td>1072525</td>
</tr>
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</table>

**Note** - Tax deducted at source to be indicated

(Accounts Officer)
CDER
### SCHEDULE 18 - OTHERS INCOME

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Misc. Receipt</td>
<td>219801</td>
<td>76288</td>
</tr>
<tr>
<td>2. Estb. Receipt (Scheme)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Others (specify)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>219801</td>
<td>76288</td>
</tr>
</tbody>
</table>

### SCHEDULE 19 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Closing stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Less: Opening Stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NET INCREASE/(DECREASE) [a+b]</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SCHEDULE 20 - ESTABLISHMENT EXPENSES

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and Wages</td>
<td>64935117</td>
<td>50997549</td>
</tr>
<tr>
<td>Allowances and Bonus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contribution to Provident Fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contribution to Other Fund (Scheme Cell)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Welfare Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expenses on Employees &quot;Retirement and Terminal Benefits&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (NPS &amp; LSPC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>64935117</td>
<td>50997549</td>
</tr>
<tr>
<td>Description</td>
<td>Current Year</td>
<td>Previous Year</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>a) Purchases of Material &amp; Supply</td>
<td>38686005</td>
<td>18450727</td>
</tr>
<tr>
<td>b) Labour and processing expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Cartage and Carriage Inwards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Electricity and power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Water charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Out sourced manpower services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Security services</td>
<td>16651709</td>
<td>14056742</td>
</tr>
<tr>
<td>ii) Sanitation services</td>
<td>13521880</td>
<td>12933499</td>
</tr>
<tr>
<td>iii) Man Power</td>
<td>17221096</td>
<td>15079667</td>
</tr>
<tr>
<td>h) Repairs and maintenance</td>
<td>39633996</td>
<td>43515059</td>
</tr>
<tr>
<td>i) Rent, Rates and Taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j) Vehicles, Running and Maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k) Postage, Telephone and Communication Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l) Printing and Stationary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m) Travelling and Conveyance Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n) Expenses on Seminar/Workshops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o) Subscription Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p) Expenses on Fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>q) Hospitality Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>s) Professional Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>t) Provision for Bad and Doubtful Debts/Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>u) Irrecoverable Balances Written-off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v) Packing Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>w) Freight and Forwarding Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x) Distribution Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>y) Advertisement and Publicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>z) Others (specify) (Contingency charge)</td>
<td>915559</td>
<td>723837</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>126630245</strong></td>
<td><strong>104759531</strong></td>
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</tbody>
</table>

(Accounts Officer)

CDER
FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31-03-2019

SCHEDULE 21 (A) Adjustment of Advances

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Contingency Advance</td>
<td>23420</td>
<td>-</td>
</tr>
<tr>
<td>2. Others (specify)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>23420</td>
<td>-</td>
</tr>
</tbody>
</table>

(Accounts Officer)
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SCHEDULE 22- EXPENDITURE ON GRANTS, SUBSIDIES ETC.

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a). Grants given to Institutions/Organizations</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b). Subsidies given to Institutions/organisations</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note**: name of the Entities, their activities along with the amount of grants/subsidies are to be disclosed.

SCHEDULE 23- INTEREST

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) On fixed Loans</td>
<td>2415</td>
<td>2685</td>
</tr>
<tr>
<td>b) On other Loans (including Bank charges)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2415</td>
<td>2685</td>
</tr>
</tbody>
</table>

(Accounts Officer)
CDER
<table>
<thead>
<tr>
<th>Receipts</th>
<th>Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Opening Balances</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Cash in Hand</td>
<td></td>
</tr>
<tr>
<td>(b) Bank Balances</td>
<td></td>
</tr>
<tr>
<td>(i) In current accounts</td>
<td>60,305,453.00</td>
</tr>
<tr>
<td>(ii) In deposit accounts</td>
<td></td>
</tr>
<tr>
<td>(iii) In saving accounts</td>
<td></td>
</tr>
<tr>
<td><strong>1. Expenses</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Establishment Expenses (Schedule 20)</td>
<td>138,631,377.00</td>
</tr>
<tr>
<td>(b) Administrative Expenses (Schedule 21A)</td>
<td>107,351,051.00</td>
</tr>
<tr>
<td>2. Advance payment</td>
<td></td>
</tr>
<tr>
<td>(i) Material and Supply</td>
<td></td>
</tr>
<tr>
<td>(ii) Temp adv for training programme (DTCs Scheme)</td>
<td></td>
</tr>
<tr>
<td>3. Grant Received</td>
<td></td>
</tr>
<tr>
<td>(a) From Government of India (Ministry of H&amp;FW)</td>
<td></td>
</tr>
<tr>
<td>Grant in Aid (Capital Assets)</td>
<td>15,000,000.00</td>
</tr>
<tr>
<td>Grant in Aid (General)</td>
<td>117,500,000.00</td>
</tr>
<tr>
<td>Grant in Aid (Salaries)</td>
<td>145,000,000.00</td>
</tr>
<tr>
<td>(b) Grant in aid (General/DTCs Scheme)</td>
<td>45,000,000.00</td>
</tr>
<tr>
<td>(c) From other sources (SAP)</td>
<td>50,000,000.00</td>
</tr>
<tr>
<td><strong>4. Expenditure on Fixed Assets &amp; Capital Work-in-Progress</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Purchase of Fixed Assets (Schedule 8)</td>
<td>18,391,691.00</td>
</tr>
<tr>
<td>(b) Expenditure on capital work-in-progress</td>
<td>-</td>
</tr>
<tr>
<td><strong>5. Income on Investment from</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Earmarked/Endow. Funds</td>
<td>-</td>
</tr>
<tr>
<td>(b) Own funds (Oth. Investments)</td>
<td>-</td>
</tr>
<tr>
<td>(c) Repayment of loan to AIIMS (Schedule 7)</td>
<td>-</td>
</tr>
<tr>
<td>(d) Refund to UNDCP A/c</td>
<td>11,221.00</td>
</tr>
<tr>
<td><strong>5. Refund of surplus money/loans</strong></td>
<td>-</td>
</tr>
<tr>
<td>(a) On bank deposits</td>
<td>-</td>
</tr>
<tr>
<td>(b) Loans, Advances etc.</td>
<td>-</td>
</tr>
<tr>
<td><strong>6. Interest received</strong></td>
<td>-</td>
</tr>
<tr>
<td>(a) Projects</td>
<td>-</td>
</tr>
<tr>
<td>(b) NPS Recovery</td>
<td>-</td>
</tr>
<tr>
<td><strong>6. Finance Charges (Interest)</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>7. Other Payments (Specify)</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>5. Income from Hospital Services</strong></td>
<td></td>
</tr>
<tr>
<td>Hospital Receipts</td>
<td>689,040.00</td>
</tr>
<tr>
<td><strong>5. Other Income</strong></td>
<td></td>
</tr>
<tr>
<td>Misc. Receipts</td>
<td>31,679.00</td>
</tr>
<tr>
<td><strong>5. Amount Borrowed</strong></td>
<td></td>
</tr>
<tr>
<td>Loan from AIIMS (Main)</td>
<td>30,000,000.00</td>
</tr>
<tr>
<td><strong>7. Any other receipts</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Projects</td>
<td>-</td>
</tr>
<tr>
<td>(b) Earnest Money Deposits</td>
<td>-</td>
</tr>
<tr>
<td>(c) Employees Recovery (Income Tax)</td>
<td>213,031.00</td>
</tr>
<tr>
<td>(d) Employees Recovery (Income Tax)</td>
<td>920,209.00</td>
</tr>
<tr>
<td>(e) Outside Recoveries</td>
<td>21,679,504.00</td>
</tr>
<tr>
<td>(f) GPF (Subscription and Advances)</td>
<td>13,477,375.00</td>
</tr>
<tr>
<td><strong>7. NPS Recovery</strong></td>
<td>-</td>
</tr>
<tr>
<td>(a) NPS Recovery (without PRAN)</td>
<td>280,370.00</td>
</tr>
<tr>
<td>(b) GPF (Subscription and Advances)</td>
<td>-</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>iv) NPS Recovery</td>
<td>4,187,563.00</td>
</tr>
<tr>
<td>v) NPS Recovery (without PRAN)</td>
<td>280,370.00</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan, Adv. and Other Assets/Recovery</td>
<td></td>
</tr>
<tr>
<td>Cash in hand</td>
<td></td>
</tr>
<tr>
<td>Bank Balances</td>
<td></td>
</tr>
<tr>
<td>Computer Advance Recovery</td>
<td></td>
</tr>
<tr>
<td>House Building Advance Recovery</td>
<td></td>
</tr>
<tr>
<td>Festival Advance Recovery</td>
<td></td>
</tr>
<tr>
<td>Recovery/Deductions (Engg Works)</td>
<td></td>
</tr>
<tr>
<td>Recovery/Deductions (other than Engg Works)</td>
<td>1,737,119.00</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>456,032,564.00</td>
</tr>
</tbody>
</table>
## NATIONAL DRUG DEPENDENCE TREATMENT CENTRE
### BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)

<table>
<thead>
<tr>
<th>CORPUS/CAPITAL FUND AND LIABILITIES</th>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORPUS/CAPITAL FUND</td>
<td>1</td>
<td>266,672,470.00</td>
<td>251,672,470.00</td>
</tr>
<tr>
<td>RESERVES AND SURPLUS</td>
<td>2</td>
<td>46,489,763.00</td>
<td>19,880,519.00</td>
</tr>
<tr>
<td>EARMARKED/ENDOWMENT FUNDS</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SECURED LOANS AND BORROWINGS</td>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>UNSECURED LOANS AND BORROWINGS</td>
<td>5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>DEFERRED CREDIT LIABILITIES</td>
<td>6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CURRENT LIABILITIES AND PROVISIONS</td>
<td>7</td>
<td>15,411,370.00</td>
<td>70,546,325.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>328,573,603.00</td>
<td>342,099,314.00</td>
</tr>
</tbody>
</table>

<p>| ASSETS                              |          |                  |                  |
| FIXED ASSETS                        | 8        | 275,760,326.00   | 257,368,635.00   |
| INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS | 9   | -                | -                |
| INVESTMENTS-OTHERS                  | 10       | -                | -                |
| CURRENT ASSETS, LOANS, ADVANCES ETC.| 11       | 52,813,277.00    | 84,632,569.00    |
| MISCELLANEOUS EXPENDITURE           |          |                  |                  |
| (to the extent not written off or adjusted) |        |                  |                  |
| <strong>TOTAL</strong>                           |          | 328,573,603.00   | 342,001,204.00   |</p>
<table>
<thead>
<tr>
<th></th>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INCOME</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from Sales/Services</td>
<td>12</td>
<td>689,040.00</td>
<td>622,365.00</td>
</tr>
<tr>
<td>(Hospital Receipts)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants/Subsidies</td>
<td>13</td>
<td>307,500,000.00</td>
<td>244,000,000.00</td>
</tr>
<tr>
<td>Fees/Subscriptions</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from Investments</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Income on Invest. From earmeked/endow. Funds transferred to funds)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income for Royalty, Publication etc.</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest Earned</td>
<td>17</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other Income</td>
<td>18</td>
<td>31,679.00</td>
<td>69,295.00</td>
</tr>
<tr>
<td>Increase/(decrease) in stock</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>of Finished goods and works-in-progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td></td>
<td>308,220,719.00</td>
<td>244,691,660.00</td>
</tr>
<tr>
<td><strong>EXPENDITURE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishment Expenses</td>
<td>20</td>
<td>138,631,377.00</td>
<td>131,269,356.00</td>
</tr>
<tr>
<td>Other Administrative Expenses etc.</td>
<td>21</td>
<td>142,980,098.00</td>
<td>99,547,168.00</td>
</tr>
<tr>
<td>Expenditure on Grants, Subsidies etc.</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation (Net Total at the year-end - corresponding to Schedule 8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (B)</strong></td>
<td></td>
<td>281,611,475.00</td>
<td>230,816,524.00</td>
</tr>
<tr>
<td>Balance being excess of Expenditure over income (B-A)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer to Special Reserve (Specify each)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer to /from General Reserve</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CORPUS/ CAPITAL FUND</strong></td>
<td></td>
<td>308,220,719.00</td>
<td>244,691,660.00</td>
</tr>
</tbody>
</table>
## Schedule 1: Corpus/Capital Fund

<table>
<thead>
<tr>
<th>Year</th>
<th>Beginning Balance (Rs.)</th>
<th>Additions (Rs.)</th>
<th>Deductions (Rs.)</th>
<th>Ending Balance (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018-19</td>
<td>251,672,470.00</td>
<td>15,000,000.00</td>
<td>266,672,470.00</td>
<td>251,672,470.00</td>
</tr>
<tr>
<td>2017-18</td>
<td>226,672,470.00</td>
<td>25,000,000.00</td>
<td>251,672,470.00</td>
<td>226,672,470.00</td>
</tr>
</tbody>
</table>

## Schedule 2: Reserves and Surplus

1. **Capital Reserve**
   - As per last Account: 19,880,519.00
   - Addition during the year: 26,609,244.00
   - Less: Deductions during the year: 46,489,763.00
   - Adjusted during the year: -
   - Total: 19,880,519.00

2. **Revaluation Reserve**
   - As per last Account: 0.00
   - Adjustment during the year: -
   - Total: 0.00

3. **General Reserve**
   - As per last Account: -
   - Total: -
<table>
<thead>
<tr>
<th>SCHEDULE 3 - EARMARKED/ENDOWMENT FUNDS</th>
<th>Scheme Non</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Scheme</td>
<td>2018-19</td>
</tr>
<tr>
<td>a) Opening balance of the funds</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>b) Additions to the Funds:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Donations/grants</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>ii. Income from investments made on account of funds</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>iii. Other additions (specify nature)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. Less Expenditure during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL (a+b)</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>c) Utilisation/Expenditure towards objectives of funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Capital Expenditure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Fixed Assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Revenue Expenditure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Salaries, Wages and allowances etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Other Administrative expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL (c)</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>NET BALANCE AS AT THE YEAR-END (a+b-c)</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
## SCHEDULE 4 - SECURED LOANS AND BORROWINGS:

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Central Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. State Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Financial Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Other Loans (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest accrued and due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Other Institutions and Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Note:* Amounts due within one year

## SCHEDULE 5 - UNSECURED LOANS AND BORROWING

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Central Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. State Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Financial Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Other Loans (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Other Institutions and Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Fixed Deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Note:* Amounts due within one year

## SCHEDULE 6 - DEFERRED CREDIT LIABILITIES:

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Acceptances secured by hypothecation of capital equipment and other assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Note:* Amount due within one year
## SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS

### A. CURRENT LIABILITIES AND PROVISIONS

1. Acceptances
2. Sundry Creditors:
   a) For Goods
   b) Others (Outside recoveries to be paid to AIIMS)
      i) AIIMS Employees (OB)
      ii) Outside recoveries (OB)
      Opening Balance
      Less adjust during the year
3. Advances Received for patients from Govt Agencies
   i) NIAF
   ii) NPCB
4. Projects Grants
5. Interest accrued but not due on:
   a) Secured Loans/borrowings
   a) Unsecured Loans/borrowings
6. Statutory Liabilities:
   a) Overdue
   a) Others
7. Security Deposits (EMD)
   Opening Balance
   Received during the year
   Refund during the year
   6. Other current Liabilities
   Refund to UNDCP a/c
9. Excess grant to be refunded to Ministry (OB)
   Less : Adjusted during the year
10. Loan from AIIMS (Main) (OB)

### B. PROVISIONS

1. For Taxation
2. Gratuity
3. Superannuation/Pension
4. Accumulated Leave Encashment
5. Trade Warranties/Claims
6. Others (specify)

### TOTAL (A+B)

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL (A+B)</td>
<td>15,411,370.00</td>
<td>70,546,325.00</td>
</tr>
</tbody>
</table>
### Schedule 8 – Fixed Assets

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>Gross Block</th>
<th>Depreciation</th>
<th>Net Block</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost/ valuation at the beginning of the year</td>
<td>Additions during the year</td>
<td>Deductions during the year</td>
</tr>
<tr>
<td>A. Fixed Assets:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Land:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Freehold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Leasehold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Buildings:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Freehold Land (construction)</td>
<td>118,120,165.00</td>
<td>3,153,089.00</td>
<td></td>
</tr>
<tr>
<td>b) On Leasehold Land</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Ownership Flats/Premises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Superstructures on Land</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not belonging to the entity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Plant Machinery &amp; Equipment</td>
<td>66,833,007.00</td>
<td>11,977,204.00</td>
<td>78,810,211.00</td>
</tr>
<tr>
<td>4. Vehicles</td>
<td>12,241,608.00</td>
<td>1,089,741.00</td>
<td>13,331,349.00</td>
</tr>
<tr>
<td>5. Furniture, Fixtures</td>
<td>11,850,520.00</td>
<td>1,890,203.00</td>
<td>13,740,723.00</td>
</tr>
<tr>
<td>6. Office Equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Computer/Peripherals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Electric Installations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Library Books</td>
<td>46,189,775.00</td>
<td>281,454.00</td>
<td>46,471,229.00</td>
</tr>
<tr>
<td>10. Tubewells &amp; W. Supply</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Other Fixed Assets (SAP)</td>
<td>2,133,560.00</td>
<td></td>
<td>2,133,560.00</td>
</tr>
<tr>
<td>Total of current year</td>
<td>257,368,635.00</td>
<td>18,391,691.00</td>
<td>-</td>
</tr>
<tr>
<td>Previous Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Capital Work-in-Progress</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>257,368,635.00</td>
<td>18,391,691.00</td>
<td>-</td>
</tr>
</tbody>
</table>
### SCHEDULE 9 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Government Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Other approved Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others (to be specified)</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
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</tr>
</tbody>
</table>

### SCHEDULE 10 - INVESTMENTS - OTHERS

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Government Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Other approved Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others (to be specified)</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
# National Drug Dependence Treatment Centre

**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019**

## SCHEDULE 11A - CURRENT ASSETS, LOANS, ADVANCES ETC.

<table>
<thead>
<tr>
<th>A</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CURRENT ASSETS:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Advances for Procurement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Material and Supply</td>
<td>Opening Balance</td>
<td>255,000.00</td>
</tr>
<tr>
<td></td>
<td>Addition during the year</td>
<td>132,635.00</td>
</tr>
<tr>
<td></td>
<td>Adjusted during the year</td>
<td>132,635.00</td>
</tr>
<tr>
<td>b) Machinery and Equipment</td>
<td>Opening Balance</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Addition during the year</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Adjusted during the year</td>
<td>-</td>
</tr>
<tr>
<td>2. Advance for training Programme</td>
<td>Opening Balance</td>
<td>23,418,377.00</td>
</tr>
<tr>
<td></td>
<td>Addition during the year</td>
<td>27,901,917.00</td>
</tr>
<tr>
<td></td>
<td>Adjusted during the year</td>
<td>35,496,412.00</td>
</tr>
<tr>
<td>3. Sundry Debtors:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Debits Outstanding for a period exceeding six months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Others Over payment under salaries head (Income tax)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imprest</td>
<td>Opening Balance</td>
<td>213,031.00</td>
</tr>
<tr>
<td></td>
<td>Adjusted during the year</td>
<td>213,031.00</td>
</tr>
<tr>
<td>4. Cash balances in hand (including cheques/drafts and imprest)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Bank Balances:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>On Current Accounts</td>
<td>36,293,687.00</td>
</tr>
<tr>
<td></td>
<td>On Deposit Accounts (includes margin money)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>On Savings Accounts</td>
<td></td>
</tr>
<tr>
<td>b) With non-Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>On Current Accounts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>On Deposit Accounts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>On Savings Accounts</td>
<td></td>
</tr>
<tr>
<td>6. Custom Duty Advance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Outside Recovery</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td></td>
<td>52,813,277.00</td>
</tr>
</tbody>
</table>
National Drug Dependence Treatment Centre  
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019  

<table>
<thead>
<tr>
<th>LOANS, ADVANCES AND OTHER ASSETS</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Loans:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Motor car</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii) House Building Advance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii) Computer Advance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv) Festival Advance</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Advances and other amounts recoverable in cash or in kind or for value to be received:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Capital Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Prepayments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Income Accrued:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Investments from Earmarked / Endowment Funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) On Investments - Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) On Loans and Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(includes income due unrealised - Rs....)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Claims Receivable:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (B)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL (A + B)</strong></td>
<td>52,813,277.00</td>
<td>84,632,569.00</td>
</tr>
</tbody>
</table>
### National Drug Dependence Treatment Centre

**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31-03-2019**

(Amount - Rs.)

<table>
<thead>
<tr>
<th>SCHEDULE 12 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Income from Sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Hospital receipts</td>
<td>689,040.00</td>
<td>622,365.00</td>
</tr>
<tr>
<td>2. Administrative charges (Projects)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sale of Scraps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Income from Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Labour and Processing Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Professional / Consultancy Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Agency Commission and Brokerage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Maintenance Services (Equipment/Property)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Others (Specify) Hospital Receipt</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>689,040.00</td>
<td>622,365.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCHEDULE 13 - GRANTS / SUBSIDIES</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Income from Sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Irrevocable Grants &amp; Subsidies Received)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Central Government</td>
<td>307,500,000.00</td>
<td>194,000,000.00</td>
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<tr>
<td>2. State Government(s)</td>
<td></td>
<td></td>
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<tr>
<td>3. Government Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Institutions/ Welfare Bodies (SAP)</td>
<td></td>
<td>50,000,000.00</td>
</tr>
<tr>
<td>5. International Organisations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others (Specify) LOAN FROM AIIMS</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>307,500,000.00</td>
<td>244,000,000.00</td>
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</tbody>
</table>
## SCHEDULE 14 - FEES/SUBSCRIPTIONS

<table>
<thead>
<tr>
<th>Item</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tuition &amp; Examination Fee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Licence Fee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Seminar/Program Fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Consultancy Fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Others (Specify) EHS</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Note:* Accounting Policies towards each item are to be disclosed.

## SCHEDULE 15 - INCOME FROM INVESTMENTS

<table>
<thead>
<tr>
<th>Income on Invest. From Earmarked/Endowment Funds transferred to Funds</th>
<th>Investment from Earmarked Fund</th>
<th>Investment-Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Interest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Govt. Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Other Bonds/Debentures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Dividends:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Mutual Fund Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Rents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Others (Specify)</td>
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<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
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<td></td>
</tr>
</tbody>
</table>

**TRANSFERRED TO EARMARKED/ENDOWMENT FUNDS**
### SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ETC.

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Income from Royalty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Income from Publications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Others (specify)</td>
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<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
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<td></td>
</tr>
</tbody>
</table>

### SCHEDULE 17 - INTEREST EARNED

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. On Term Deposits:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) With Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. On Savings Accounts:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Post Office Savings Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. On Loans:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Employees/Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Interest on Debtors and other Receivables</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### SCHEDULE 18 - OTHERS INCOME

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Misc. Receipt</td>
<td>31,679.00</td>
<td>69,295.00</td>
</tr>
<tr>
<td>2. Estb. Receipt (Scheme)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Others (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>31,679.00</strong></td>
<td><strong>69,295.00</strong></td>
</tr>
</tbody>
</table>

### SCHEDULE 19 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Closing stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Less: Opening Stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Finished Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work-in-progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NET INCREASE/(DECREASE) [a+b]</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SCHEDULE 20 - ESTABLISHMENT EXPENSES

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>134,025,070.00</td>
<td>126,538,191.00</td>
</tr>
<tr>
<td>Allowances and Bonus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contribution to NPS</td>
<td>4,606,307.00</td>
<td>4,731,165.00</td>
</tr>
<tr>
<td>Contribution to Other Fund (Scheme Cell)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Welfare Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expenses on Employees &quot;Retirement and Terminal Benefits&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (NPS &amp; LSPC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>138,631,377.00</strong></td>
<td><strong>131,269,356.00</strong></td>
</tr>
</tbody>
</table>
### SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC.

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Purchases (Material and Supply)</td>
<td>53,073,788.00</td>
<td>52,171,350.00</td>
</tr>
<tr>
<td>b) Housekeeping services</td>
<td>18,204,715.00</td>
<td>35,515,531.00</td>
</tr>
<tr>
<td>c) Misc expenditure (Adj. of advances)</td>
<td>132,635.00</td>
<td>251,481.00</td>
</tr>
<tr>
<td>d) Wages for security and contractual staff</td>
<td>21,353,767.00</td>
<td></td>
</tr>
<tr>
<td>e) Misc Exp from Imprest</td>
<td>99,586.00</td>
<td>107,887.00</td>
</tr>
<tr>
<td>f) Imrest adjusted (18-19) Misc expenditure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Repairs and maintenance (M&amp;E)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) Excise Duty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Rent, Rates and Taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j) Vehicles, Running and Maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k) Postage, Telephone and Communication Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l) Printing and Stationary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m) Travelling and Conveyance Expenses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n) Expenses on Seminar/Workshops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o) Expenses under DTCs Scheme</td>
<td>11,035,948.00</td>
<td></td>
</tr>
<tr>
<td>p) Expenses on Sanitation (SAP)</td>
<td>3,583,247.00</td>
<td>238,587.00</td>
</tr>
<tr>
<td>q) Maintinance of Buildings (Minor Work RG)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>r) Maintaince of M&amp;E (CAMC/AMC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>s) Maintaince of Building (Non-plan)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>t) Provision for Bad and Doubtful Debts/Advance:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>u) Irrecoverable Balances Written-off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v) Swap Charges (IDBI Debit/Credit Card Commission)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>w) Freight and Forwarding Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x) Distribution Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>y) Advertisement and Publicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>z) Others (specify)</td>
<td>35,496,412.00</td>
<td>11,262,332.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>142,980,098.00</strong></td>
<td><strong>99,547,168.00</strong></td>
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</tbody>
</table>

### SCHEDULE 21A - OTHER ADMINISTRATIVE EXPENSES ETC.

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Purchases (Material and Supply)</td>
<td>53,073,788.00</td>
<td>52,171,350.00</td>
</tr>
<tr>
<td>b) HOUSEKEEPING SERVICES (SAP)</td>
<td>18,204,715.00</td>
<td>35,515,531.00</td>
</tr>
<tr>
<td>c) Misc expenditure (Adj. of advances)</td>
<td>132,635.00</td>
<td>251,481.00</td>
</tr>
<tr>
<td>d) Wages for security and contractual staff</td>
<td>21,353,767.00</td>
<td></td>
</tr>
<tr>
<td>e) Water charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Imrest adjusted (18-19) Misc expenditure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Repairs and maintenance (M&amp;E)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) Excise Duty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Rent, Rates and Taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j) Vehicles, Running and Maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k) Postage, Telephone and Communication Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l) Printing and Stationary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m) Travelling and Conveyance Expenses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n) Expenses on Seminar/Workshops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o) Expenses under DTCs Scheme</td>
<td>11,035,948.00</td>
<td></td>
</tr>
<tr>
<td>p) Expenses on Sanitation (SAP)</td>
<td>3,583,247.00</td>
<td>238,587.00</td>
</tr>
<tr>
<td>q) Maintinance of Buildings (Minor Work RG)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>r) Maintaince of M&amp;E (CAMC/AMC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>s) Maintaince of Building (Non-plan)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>t) Provision for Bad and Doubtful Debts/Advances:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>u) Irrecoverable Balances Written-off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v) Swap Charges (IDBI Debit/Credit Card Commission)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>w) Freight and Forwarding Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x) Distribution Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>y) Advertisement and Publicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>z) Others (specify) (Contingency charge) (Adj. of advances)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>107,351,051.00</strong></td>
<td><strong>88,033,355.00</strong></td>
</tr>
</tbody>
</table>
### National Drug Dependence Treatment Centre

**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019**

<table>
<thead>
<tr>
<th>SCHEDULE 22- EXPENDITURE ON GRANTS, SUBSIDIES ETC.</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a). Grants given to Institutions/Organizations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b). Subsidies given to Institutions/organisations</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Note** - name of the Entities, their activities along with the amount of grants/subsidies are to be disclosed.

<table>
<thead>
<tr>
<th>SCHEDULE 23- INTEREST</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) On fixed Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) On other Loans (including Bank charges)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
# FORM OF FINANCIAL STATEMENTS

**UNDPC A/C**

**ALL INDIA INSTITUTE OF MEDICAL SCIENCE**

**RECEIPTS AND PAYMENT ACCOUNT**

**FOR THE YEAR ENDED ON 31st MARCH, 2018**

<table>
<thead>
<tr>
<th>I. Opening Balance</th>
<th>2018-19</th>
<th>2017-18</th>
<th>II. Grants Received</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a) Cash in hand</strong></td>
<td>1,924,206</td>
<td>687,760</td>
<td>a) From WHO</td>
<td>85,850</td>
<td>321,600</td>
</tr>
<tr>
<td><strong>b) Bank Balances</strong></td>
<td>4,390,985</td>
<td>649</td>
<td>b) From State Government</td>
<td>71,900,000</td>
<td>74,441,083</td>
</tr>
<tr>
<td>(i) In current accounts</td>
<td>73,732,674</td>
<td>2,218,851</td>
<td>c) To other providers of Funds</td>
<td>7,499,950</td>
<td>7,499,950</td>
</tr>
<tr>
<td>(ii) In deposit accounts</td>
<td>73,732,674</td>
<td>2,218,851</td>
<td>a) To the Government of India</td>
<td>73,938,037</td>
<td>74,441,083</td>
</tr>
<tr>
<td>(iii) Savings accounts</td>
<td>73,938,037</td>
<td>74,441,083</td>
<td>b) Grant refund to WHO</td>
<td>73,938,037</td>
<td>74,441,083</td>
</tr>
</tbody>
</table>

| III. Expenditure on fixed assets (Schedule No.2) | 7,499,950 | 7,499,950 |
| IV. Other Income | 20,000 | 20,000 |
| a) Engg. Maintenance | 20,000 | 20,000 |
| b) Minor Works. | 20,000 | 20,000 |
| c) Misc. Receipts | 20,000 | 20,000 |
| d) Festival Advance Paid | 20,000 | 20,000 |

| VII. Closing Balances | 632 | 632 |
| a) Cash in hand | 632 | 632 |
| b) Bank Balances | 60,122,247 | 73,732,674 |
| (i) In Current accounts | 60,122,247 | 73,732,674 |
| (ii) In Deposit accounts | 60,122,247 | 73,732,674 |
| (iii) Savings accounts | 60,122,247 | 73,732,674 |
## ALL INDIA INSTITUTE OF MEDICAL SCIENCE
### UNDCP A/c
### INCOME AND EXPENDITURE ACCOUNT
### FOR THE YEAR ENDED ON 31st MARCH, 2018

<table>
<thead>
<tr>
<th>INCOME</th>
<th>SCHEDULE</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants/Subsidies</td>
<td>4</td>
<td>205,363.00</td>
<td>72,221,600</td>
</tr>
<tr>
<td>Fees/Subscriptions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from Investments (Income on Investment from earmarked/endow. Funds)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from Royalty, Publication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest Earned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (A)</td>
<td></td>
<td>205,363.00</td>
<td>72,221,600</td>
</tr>
</tbody>
</table>

| EXPENDITURE                                      |          |          |               |
| Establishment Expenses                          | 5        | 1,924,206.00 | 687,760  |
| Other Administrative Expenses                   | 6        | 4,390,985.00 | 1,925,000 |
| Expenditure on Grants, Subsidies                 |          |          |               |
| Bank Charges                                    | 7        | 649.00    | 649         |
| Depreciation                                    |          |          |               |
| Others                                          |          | 0        |             |
| Total (B)                                       |          | 6,315,840 | 2,613,409  |

### Balance being excess of Expenditure over Income (A-B)  
-6,110,477  69,608,191

### Transfer to Special Reserve (Specify Each)

### Transfer to General Reserve

### Balance Being Surplus/Deficit carried to General Reserve
-6,110,477  69,608,191
205,363  72,221,600
## Form of Financial Statements

**UNDCP A/c**  
**All India Institute of Medical Science**  
**Balance Sheet as at 31st March, 2018**

<table>
<thead>
<tr>
<th>CORPUS / CAPITAL FUND AND LIABILITIES</th>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORPUS / CAPITAL FUND</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESERVE AND SURPLUS</td>
<td>1</td>
<td>67,667,197.00</td>
<td>73,777,674.00</td>
</tr>
<tr>
<td>EARMARKED / ENDOWMENT FUNDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SECURED LOANS AND BORROWINGS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNSECURED LOANS AND BORROWINGS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEFERRED CREDIT LIABILITIES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CURRENT LIABILITIES AND PROVISIONS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Capital Fund and Liabilities</strong></td>
<td></td>
<td>67,667,197.00</td>
<td>73,777,674.00</td>
</tr>
</tbody>
</table>

### ASSETS

<table>
<thead>
<tr>
<th></th>
<th>Schedule</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIXED ASSETS</td>
<td>2</td>
<td>7,499,950.00</td>
<td></td>
</tr>
<tr>
<td>INVESTMENTS - FROM EARMARKED / ENDOWMENT FUNDS</td>
<td>60,167,247.00</td>
<td>73,777,674.00</td>
<td></td>
</tr>
<tr>
<td>INVESTMENTS - OTHERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CURRENT ASSETS, LOANS, ADVANCES ETC.</td>
<td>3</td>
<td>60,167,247.00</td>
<td>73,777,674.00</td>
</tr>
<tr>
<td>MISCELLANEOUS EXPENDITURE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(to the extent not written off or adjusted)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td></td>
<td>67,667,197.00</td>
<td>73,777,674.00</td>
</tr>
</tbody>
</table>
### Schedule 1 - Reserve and Surplus

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Capital Reserve:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As per last Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Addition during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: Deduction During the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Revaluation Reserve:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As per last Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Addition during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: Deduction During the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Special Reserves:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As per last Account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Addition during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: Deduction During the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. General Reserve:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As per last Account</td>
<td>73,777,674.00</td>
<td>4,169,483.00</td>
</tr>
<tr>
<td>Less: Excess of Expenditure over Income</td>
<td>-6,110,477.00</td>
<td></td>
</tr>
<tr>
<td>Add: Excess of Income over Expenditure</td>
<td>69,608,191.00</td>
<td></td>
</tr>
<tr>
<td>Less: Grant refund to ministry</td>
<td>67,667,197.00</td>
<td>73,777,674.00</td>
</tr>
<tr>
<td>Closing Balance</td>
<td>67,667,197.00</td>
<td>73,777,674.00</td>
</tr>
</tbody>
</table>
## FORM OF FINANCIAL STATEMENTS

### ALL INDIA INSTITUTE OF MEDICAL SCIENCE

(Amount in Rs.)

### SCHEDULE 2 – FIXED ASSETS

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>GROSS BLOCK</th>
<th>DEPRECIATION</th>
<th>NET BLOCK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost/ valuation as at beginning of the year</td>
<td>Additions during the year</td>
<td>Deductions during the year</td>
</tr>
<tr>
<td>A. FIXED ASSETS:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. LAND:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Freehold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Leasehold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. BUILDINGS:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Freehold Land (construction)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) On Leasehold Land</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Ownership Flats/Premises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Superstructures on Land</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not belonging to the entity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. PLANT MACHINERY &amp; EQUIPMENT</td>
<td>7,499,950.00</td>
<td>7,499,950.00</td>
<td>7,499,950.00</td>
</tr>
<tr>
<td>4. VEHICLES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. FURNITURE, FIXTURES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. OFFICE EQUIPMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. COMPUTER/PERIPHERALS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. ELECTRIC INSTALLATIONS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. LIBRARY BOOKS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. TUBEWELLS &amp; W. SUPPLY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. OTHER FIXED ASSETS (SAP)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL OF CURRENT YEAR</td>
<td>7,499,950.00</td>
<td>-</td>
<td>7,499,950.00</td>
</tr>
</tbody>
</table>

### PREVIOUS YEAR

| TOTAL | 7,499,950.00 | - | 7,499,950.00 | - | - | - | 7,499,950.00 | - | |

### B. CAPITAL WORK-IN-PROGRESS

| TOTAL | 7,499,950.00 | - | 7,499,950.00 | - | - | - | 7,499,950.00 | - | |
### Schedule 3 - Current Assets, Loans, Advances

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Cash in hand (including cheques/drafts and imprest)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Bank Balances:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Current Account</td>
<td>60,122,247.00</td>
<td>73,732,674.00</td>
</tr>
<tr>
<td>b) Deposit Account (Fixed Deposit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Loans:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) To Employees of Entity</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5. Advances and Other amounts recoverable:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) From Employees of Entity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) From Others (NDDTC)</td>
<td>632.00</td>
<td></td>
</tr>
<tr>
<td>Less:- Adjustment during the year</td>
<td>0.00</td>
<td>632.00</td>
</tr>
<tr>
<td><strong>6. Others</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advances</td>
<td>45,000.00</td>
<td>1,950,000.00</td>
</tr>
<tr>
<td>Less:- Advance adjust during the year</td>
<td>45,000.00</td>
<td>1,905,000.00</td>
</tr>
<tr>
<td><strong>Balance as at the Year End</strong></td>
<td>60,167,247.00</td>
<td>73,777,674.00</td>
</tr>
</tbody>
</table>

### Schedule 4 - Grants and Subsidies

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a) From WHO</strong></td>
<td>85,850.00</td>
<td>321,600.00</td>
</tr>
<tr>
<td>Received from NDDTC A/C</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>b) Grant from CSIR</strong></td>
<td>119,513.00</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>205,363.00</td>
<td>71,900,000.00</td>
</tr>
</tbody>
</table>
### Schedule 5- Establishment Expenditure

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment Charges (Salaries)</td>
<td>1,924,206.00</td>
<td>687,760.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,924,206.00</strong></td>
<td><strong>687,760.00</strong></td>
</tr>
</tbody>
</table>

### Schedule 6- Other Administrative Expenses Etc.

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase (Material &amp; Supply)</td>
<td>4,182,693.00</td>
<td></td>
</tr>
<tr>
<td>Add:- Adjustment of Advance during the year 2017-18</td>
<td></td>
<td>1,905,000.00</td>
</tr>
<tr>
<td>Transport Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travelling Expenditure</td>
<td>119,513.00</td>
<td></td>
</tr>
<tr>
<td>Bank charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous Expenditure (1,00,000-11221)</td>
<td>88,779.00</td>
<td>20,000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,390,985.00</strong></td>
<td><strong>1,925,000.00</strong></td>
</tr>
</tbody>
</table>

### Schedule 7- Bank Charges

<table>
<thead>
<tr>
<th>Description</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Charges</td>
<td>649</td>
<td>649</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>649</td>
<td>649</td>
</tr>
</tbody>
</table>
## Centre For Integrative Medicine & Research (AIIMS)
### Receipts and Payments for the year ended 31.03.2019

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Opening balances</td>
<td></td>
<td></td>
<td>I. Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) cash in Hand</td>
<td>-</td>
<td>-</td>
<td>a) Establishment Expenses (corresponding to schedule 21)</td>
<td>-</td>
<td>3,698</td>
</tr>
<tr>
<td>b) Bank Balances</td>
<td></td>
<td></td>
<td>b) Administrative Expenses (corresponding to Schedule 22)</td>
<td>293,861</td>
<td>256,983</td>
</tr>
<tr>
<td>(i) In current Account</td>
<td>110,953</td>
<td>-</td>
<td>c) Material &amp; Supply</td>
<td>405,359</td>
<td>569,904</td>
</tr>
<tr>
<td>(ii) In Deposit Account</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) In Savings Account</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Fixed Deposits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. Grant Received</td>
<td></td>
<td></td>
<td>III. Investments and deposits made</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) From Government of India--Through Aiims Main</td>
<td></td>
<td></td>
<td>a) Out of Earmarked/Endowment funds</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Capital (Assets New)</td>
<td></td>
<td></td>
<td>b) Revolving Fund</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(i) Grant in Aid (Plan)</td>
<td>2464000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refund to Aiims Main</td>
<td>973642</td>
<td>1,490,358</td>
<td>14,684,557.00</td>
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<td></td>
</tr>
<tr>
<td>Revenue General (Plan)</td>
<td></td>
<td></td>
<td>IV. Expenditure on Fixed Assets &amp; Capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Grant in Aid-(General)</td>
<td>959000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refund to Aiims Main</td>
<td>259,755</td>
<td>699,245</td>
<td>830,585.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) From State Government</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) From Other Sources (details)</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Grant for capital and Revenue expenditure to shown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. Income on Investments From</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Earnerked Funds/ Endowments funds</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Revolving Fund</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV. Interest Received</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Bank Deposits</td>
<td></td>
<td></td>
<td>b) loans And Advances etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donatioon/Grant</td>
<td></td>
<td></td>
<td>Earnest Money Deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Interest on Loans &amp; Advances etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V. Other Income</td>
<td></td>
<td></td>
<td>VI. Finance Charges (Interest)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tender Fee</td>
<td></td>
<td></td>
<td>Bank Charges</td>
<td>-</td>
<td>1,553</td>
</tr>
<tr>
<td>V. Other Payments (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Loan Advances &amp; Other Assets/Recovery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advance to Employee</td>
<td>-</td>
<td>4,500.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes
- Schedule 21
- Schedule 22
- AIIMS 2018-19 / 1053
## VIII. Closing Balances

<table>
<thead>
<tr>
<th>Payments</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Cash in hand</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Bank Balances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) In current Account</td>
<td>108,722</td>
<td>110,953</td>
</tr>
<tr>
<td>(ii) In deposit accounts</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(iii) Savings accounts</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

## VII. Any Other Receipts (Give Details)

<table>
<thead>
<tr>
<th>Receipts</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Donation</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Earnest Money Deposits</td>
<td>-</td>
<td>108,000.00</td>
</tr>
<tr>
<td>c) Miscellaneous Receipt</td>
<td>3,698</td>
<td>-</td>
</tr>
</tbody>
</table>

### Loan, Advances & Other Assets/Recovery

<table>
<thead>
<tr>
<th>Advance to Employee</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>c) Fixed Deposits</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

## Total

<table>
<thead>
<tr>
<th>Total Receipts</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2,304,254</td>
<td>15,627,642</td>
</tr>
</tbody>
</table>

### Total Payments

<table>
<thead>
<tr>
<th>Total Payments</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2,304,254</td>
<td>15,627,642</td>
</tr>
</tbody>
</table>
## Centre For Intergrative Medicine & Research (AIIMS)

### Balance Sheet as at 31.03.2019

(Amount in Rs.)

<table>
<thead>
<tr>
<th>CORPUS/CAPITAL FUND AND LIABILITIES</th>
<th>Schedule</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corpus/Capital Fund</td>
<td>1</td>
<td>16,174,915</td>
<td>14,684,557</td>
</tr>
<tr>
<td>Reserves and Surplus</td>
<td>2</td>
<td>6,671</td>
<td>2,948</td>
</tr>
<tr>
<td>Earmarked/ Endowment Funds</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Revolving Funds</td>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Secured Loans and Borrowings</td>
<td>5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Unsecured Loans and Borrowings</td>
<td>6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Deferred Credit Liabilities</td>
<td>7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Current Liabilities and Provisions</td>
<td>8</td>
<td>95,000</td>
<td>108,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>16,276,586</strong></td>
<td><strong>14,795,505</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASSETS</th>
<th></th>
<th><strong>16,276,586</strong></th>
<th><strong>14,795,505</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Assets</td>
<td>9</td>
<td>16,167,864</td>
<td>6,694,143</td>
</tr>
<tr>
<td>Investments-From Earmarked/Endowment Funds</td>
<td>10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Investment-Others</td>
<td>11</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Miscellaneous Expenditure</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(To the extent not written off or adjusted)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance of excess of expenditure over income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>16,276,586</strong></td>
<td><strong>14,795,505</strong></td>
</tr>
</tbody>
</table>

| Significant Accounting Policies      | 25       |               |               |
| Contingent Liabilities and Notes on Accounts | 26    |               |               |

F & CAO, CIMR

PROFESSOR I/C, CIMR
<table>
<thead>
<tr>
<th>INCOME</th>
<th>Schedule</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from Sales/services</td>
<td>13</td>
<td>3,698</td>
<td>-</td>
</tr>
<tr>
<td>Grants/Subsidies</td>
<td>14</td>
<td>699,245</td>
<td>830,585</td>
</tr>
<tr>
<td>Fees/Subscription</td>
<td>15</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Income from Investments (Income on Invest. From earmarked/endow. Funds Transferred to Funds)</td>
<td>16</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Income from Royalty, publications etc.</td>
<td>17</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Interest Earned</td>
<td>18</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other Income</td>
<td>19</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Increase/(decrease) of Finished goods and works-in-progress</td>
<td>20</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td></td>
<td>702,943</td>
<td>830,585</td>
</tr>
</tbody>
</table>

| EXPENDITURE                                                            |          |              |               |
| Establishment Expenses                                                | 21       | -            | 3,698         |
| Other Administrative Expenses etc.                                    | 22       | 293,861      | 256,983       |
| Payment made against fund for various projects                        | 22 (A)   | -            | -             |
| Material & Supply                                                     | 23       | 405,359      | -             |
| Expenditure on Grants, Subsidies etc.                                 | 24       | -            | -             |
| Interest & Finance Expenses                                           | 25       | -            | 1,553         |
| Depreciation (Net Total at the year-end-corresponding to Schedule 11) |          |              |               |
| **TOTAL (B)**                                                        |          | 699,220      | 262,234       |

Balance being excess of Income over Expenditure (A-B)                    | 3,723    | 568,352      |
Transfer to Special Reserve (Specify each)                              | -        | -            |
Transfer to/from General Reserve                                        | -        | -            |

Balance being surplus/(deficit) carried to corpus/capital fund           | 3,723    | 568,352      |

Significant Accounting Policies                                         | 25       |              |
Contingent Liabilities and Notes on Accounts                            | 26       |              |
## Centre For Integrative Medicine & Research (AIIMS)

Schedules forming part of the Balance Sheet as at 31.03.2019

### Schedule 1 - Corpus/ Capital Funds

<table>
<thead>
<tr>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add: Contributions towards Corpus/Capital Fund (Through Aiims Main)</td>
<td>1,490,358</td>
</tr>
<tr>
<td>Add: Corpus/Capital Created out of Donation</td>
<td>-</td>
</tr>
<tr>
<td>Add/Deduct: Balance of net income /(expenditure) transferred from the Income and Expenditure Account</td>
<td>-</td>
</tr>
<tr>
<td>Balance as at the end of the year</td>
<td>16,174,915</td>
</tr>
</tbody>
</table>

### Schedule 2 - Reserves and Surplus

<table>
<thead>
<tr>
<th>1. Capital Reserve</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance as at the beginning of the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CIMR A/c</td>
<td>3,723</td>
<td>2,948</td>
</tr>
<tr>
<td>Add: Additions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CIMR A/c</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Revaluation Reserves</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Balance as at the beginning of the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Add: Additions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Less: Deductions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Special Reserve</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Balance as at the beginning of the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Add: Additions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Less: Deductions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. General Reserve</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Balance as at the beginning of the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Add: Additions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Less: Deductions during the year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Excess of income over expenditure</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>6,671</td>
<td>2,948</td>
</tr>
<tr>
<td>Schedule - 3 Earmarked/ Endowment Funds</td>
<td>XXX</td>
<td>YYY</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td><strong>a) Opening balance of the funds</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>b) Additions to the Funds</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>i. Donations/grants</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ii. Income from Investments made on account of funds</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>iii. Received from patients</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>iv. Other additions (specify nature)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL (a+b)</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>c) Utilisation/Expenditure towards objectives of funds</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Capital Expenditure</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Fixed Assets</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL (c.i)</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>ii. Revenue Expenditure</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Salaries, Wages and allowances etc.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Rent</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bank Charges</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other Administrative expenses</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL c (ii)</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL (c)</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>d) Refunds to Patients</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>NET BALANCE AS AT THE YEAR-END (a+b-c-d)</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Schedule -4 Revolving Fund</td>
<td>Current Year</td>
<td>Previous Year</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td></td>
<td>XX</td>
<td>YY</td>
</tr>
<tr>
<td><strong>a) Opening balance of the funds</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>b) Additions to the Funds</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Received From Patients</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ii. Grant Receive (17-18)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL (a+b)</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>c) Utilisation/Expenditure towards objectives of funds</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Capital Expenditure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Assets</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Others (Specify)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL (c.i)</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ii Revenue Expenditure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material &amp; Supply</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Others (Specify)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transfer to various pts. A/c</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL (c.ii)</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL (c)</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Balance as at the end of the year (a+b-c)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Schedule 5 - Secured Loans And Borrowings</td>
<td>Current Year</td>
<td>Previous Year</td>
</tr>
<tr>
<td>------------------------------------------</td>
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</tr>
<tr>
<td><strong>1. Capital Government</strong></td>
<td>-</td>
<td>-</td>
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<tr>
<td><strong>2. State Government (Specify)</strong></td>
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<td><strong>3. Financial Institutions</strong></td>
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<td></td>
</tr>
<tr>
<td>a) Term Loans</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Interest accrued and due</td>
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<td>a) Term Loans</td>
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<td>- Interest accrued and due</td>
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<tr>
<td>b) Other Loans (specify)</td>
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<tr>
<td>- Interest accrued and due</td>
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<td><strong>5. Other Institutions and Agencies</strong></td>
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<td><strong>6. Debentures and Bonds</strong></td>
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</tr>
<tr>
<td><strong>7. Others (specify)</strong></td>
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<tr>
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**Note:** Amounts due within one year
### Schedule 6—Unsecured Loans And Borrowings

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<tr>
<td>1. Capital Government</td>
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<tr>
<td>2. State Government (Specify)</td>
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<tr>
<td>3. Financial Institutions</td>
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<tr>
<td>a) Term Loans</td>
<td>-</td>
<td>-</td>
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<tr>
<td>b) Interest accrued and due</td>
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<td>-</td>
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<td>4. Banks</td>
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<tr>
<td>a) Term Loans</td>
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<tr>
<td>- Interest accrued and due</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Other Loans (specify)</td>
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</tr>
<tr>
<td>- Interest accrued and due</td>
<td>-</td>
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<tr>
<td>5. Other Institutions and Agencies</td>
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<tr>
<td>6. Debentures and Bonds</td>
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<td>-</td>
</tr>
<tr>
<td>7. Others (specify)</td>
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<tr>
<td><strong>TOTAL</strong></td>
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</table>

**Note:** Amounts due within one year

### Schedule 7—Deferred Credit Liabilities

<table>
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<tr>
<th>Category</th>
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<th>Previous Year</th>
</tr>
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<tbody>
<tr>
<td>a) Acceptance secured by hypothecation of capital equipment and other assets</td>
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<tr>
<td>b) Others</td>
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<td><strong>TOTAL</strong></td>
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**Note:** Amount due within one year
### Schedule 8 - Current Liabilities

<table>
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<th>Current Liabilities</th>
<th>Current Year</th>
<th>Previous Year</th>
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<td><strong>A. Current Liabilities</strong></td>
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<tr>
<td>1. Acceptances</td>
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<tr>
<td>2. Sundry Creditors</td>
<td></td>
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<tr>
<td>a) For Goods</td>
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<td>-</td>
</tr>
<tr>
<td>b) Others</td>
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<td>-</td>
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<tr>
<td>3. Advances Received</td>
<td>-</td>
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<td>4. Interest accrued but not due on</td>
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<tr>
<td>a) Secured Loans/borrowings</td>
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<td>b) Unsecured Loans/borrowings</td>
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<td>5. Statutory Liabilities</td>
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<tr>
<td>a) Overdue</td>
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<tr>
<td>b) Others</td>
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<td>6. Other Current Liabilities</td>
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<tr>
<td>7. Security Deposit</td>
<td>95,000</td>
<td>108,000</td>
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<tr>
<td>8. Imprest</td>
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<td>9. AIIMS Neuro Sciences Poor Pts. A/c</td>
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<tr>
<td><strong>TOTAL (A)</strong></td>
<td>95,000</td>
<td>108,000</td>
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</tbody>
</table>

| **B. Provisions** |              |               |
| 1. For Taxation    | -            | -             |
| 2. Gratuity        | -            | -             |
| 3. Superannuation/ Pension | -            | -             |
| 4. Accumulated Leave Encashment | -            | -             |
| 5. Trade Warranties/ Claims | -            | -             |
| 6. Accumulated Depreciation | -            | -             |
| 7. Others          | -            | -             |
| **TOTAL (B)**      | -            | -             |
| **TOTAL (A)+(B)**  | 95,000       | 108,000       |
## Schedule 9 - Fixed Assets

### (Amount in Rs.)

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Cost/Valuation as at the beginning of the year</th>
<th>Additions during the year</th>
<th>Deductions during the year</th>
<th>Additions during the year (Letter of Credit)</th>
<th>Additions during the year (PDA)</th>
<th>Additions during the year (Custom Duty)</th>
<th>Cost/Valuation at the year-end</th>
<th>As at the begg. of the year</th>
<th>For the year</th>
<th>On decl. during the year</th>
<th>Total up to the year-end</th>
<th>As at the current year-end</th>
<th>As at the previous year-end</th>
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<tbody>
<tr>
<td><strong>Funded Assets</strong></td>
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<td><strong>Capital Assets</strong></td>
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<tr>
<td><strong>LAND</strong></td>
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<td>b) Leasehold</td>
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<td><strong>BUILDINGS</strong></td>
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<tr>
<td>b) On Leasehold Land</td>
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<tr>
<td>c) Ownership Flats/Premises</td>
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<tr>
<td>d) Superstructures on Land not belonging to the entity</td>
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<td><strong>INTANGIBLE FIXED ASSETS</strong></td>
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<tr>
<td>a) Software</td>
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<td><strong>PLANT, MACHINERY &amp; EQUIPMENT</strong></td>
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<td>1,183,951</td>
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<td><strong>FURNITURE, Fixtures</strong></td>
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<td>586,040</td>
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<td>77,435</td>
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<tr>
<td><strong>TOTAL OF CURRENT YEAR</strong></td>
<td>6,694,143</td>
<td>1,483,312</td>
<td>-</td>
<td>7,990,409</td>
<td></td>
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<tr>
<td><strong>TOTAL OF CURRENT YEAR</strong></td>
<td>6,694,143</td>
<td>1,483,312</td>
<td>-</td>
<td>7,990,409</td>
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<tr>
<td><strong>TOTAL</strong></td>
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</table>
### Schedule 10 - Investments from Earmarked/Endowment Funds

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<th>Previous Year</th>
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<tbody>
<tr>
<td>1. In Government Securities</td>
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<td>-</td>
</tr>
<tr>
<td>2. Other approved Securities</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Shares</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6. Others (to be specified)</td>
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<tr>
<td><strong>TOTAL</strong></td>
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### Schedule 11 - Investments Others

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<th>Previous Year</th>
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<tbody>
<tr>
<td>1. In Government Securities</td>
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<td>-</td>
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<tr>
<td>2. Other approved Securities</td>
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<tr>
<td>3. Shares</td>
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<td>-</td>
</tr>
<tr>
<td>4. Debentures and Bonds</td>
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</tr>
<tr>
<td>5. Subsidiaries and Joint Ventures</td>
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</tr>
<tr>
<td>6. Others (to be specified)</td>
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<td>-</td>
</tr>
<tr>
<td>i. Fixed Deposit (Gamma Knife)</td>
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<tr>
<td>ii. Fixed Deposit (Angio Pts. A/c)</td>
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<tr>
<td>iii. Fixed Deposit (Neuro Surgery Pts. A/c)</td>
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<tr>
<td>Schedule 12 - Current Assets, Loans, Advances Etc.</td>
<td>Current Year</td>
<td>Previous Year</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
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</tr>
<tr>
<td><strong>A. Current Assets</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>1. Inventories</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Stores and Spares</td>
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</tr>
<tr>
<td>b) Loose Tools</td>
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<td>-</td>
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<tr>
<td>c) Stock in trade</td>
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<tr>
<td>Finished Goods</td>
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<td>-</td>
</tr>
<tr>
<td>Work-in-progress</td>
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<td>-</td>
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<tr>
<td>Raw Materials</td>
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<td>-</td>
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<tr>
<td><strong>2. Sundry Debtors</strong></td>
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</tr>
<tr>
<td>a) Debts outstanding for a period exceeding six months</td>
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</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
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<tr>
<td><strong>3. Cash balances in hand (Including cheques/drafts and imprest)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Imprest</td>
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<td></td>
</tr>
<tr>
<td><strong>4. Bank Balances</strong></td>
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<td></td>
</tr>
<tr>
<td>a) With Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- On Current Accounts</td>
<td>108,722</td>
<td>110,953</td>
</tr>
<tr>
<td>- On Deposit Accounts (Includes margin money)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- On Savings Accounts</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- On Current Accounts</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- On Deposit Accounts</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- On Savings Accounts</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>5. Post Office - Savings Accounts</strong></td>
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<tr>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td>108,722</td>
<td>110,953</td>
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</table>
SCHEDULE 12-CURRENT ASSETS LOANS, ADVANCES ETC. (CONTD.)

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<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
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<tbody>
<tr>
<td><strong>B. LOANS, ADVANCES AND OTHER ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1. Loans</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Staff</td>
<td></td>
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</tr>
<tr>
<td>b) Other Entities engaged in activities/objectives similar to that of the Entity</td>
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<td></td>
</tr>
<tr>
<td>c) Other (Patient Treatment- CGHS)</td>
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<td></td>
</tr>
<tr>
<td><strong>2. Advances and other amounts recoverable in cash or in kind or for value to be received</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Capital Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Prepayments</td>
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<td></td>
</tr>
<tr>
<td>c) Temporary Contingent Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Income Accrued</strong></td>
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<td></td>
</tr>
<tr>
<td>a) On Investments fro Earmarked / Endowment Funds</td>
<td></td>
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</tr>
<tr>
<td>b) On Investments-Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) On Loans and Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>(Includes income due unrealized-Rs. . . . . . . . .)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Claims Receivable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5. Letter of Credit</strong></td>
<td>-</td>
<td>7,990,409</td>
</tr>
<tr>
<td><strong>6. Custom Duty</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>7. Pre-Deposits Advance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (B)</strong></td>
<td>-</td>
<td>7,990,409</td>
</tr>
<tr>
<td><strong>TOTAL (A)+(B)</strong></td>
<td>108,722</td>
<td>8,101,362</td>
</tr>
</tbody>
</table>
### SCHEDULE 13-INCOME FROM SALES/SERVICE

<table>
<thead>
<tr>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1) Income from sales</strong></td>
<td></td>
</tr>
<tr>
<td>a) Sales of Finished Goods</td>
<td>-</td>
</tr>
<tr>
<td>b) Sales of Raw Material</td>
<td>-</td>
</tr>
<tr>
<td>c) Sales of Scraps</td>
<td>-</td>
</tr>
<tr>
<td><strong>2) Income from Services</strong></td>
<td></td>
</tr>
<tr>
<td>a) Labour and Processing Charges</td>
<td>-</td>
</tr>
<tr>
<td>b) Professional/Consultancy Service</td>
<td>-</td>
</tr>
<tr>
<td>c) Agency Commission and Brokerage</td>
<td>-</td>
</tr>
<tr>
<td>d) Maintenance Services (Equipment/Property)</td>
<td>-</td>
</tr>
<tr>
<td>e) Hospital Receipts</td>
<td>-</td>
</tr>
<tr>
<td>f) Others (Specify) Suspence Receipt</td>
<td>3,698</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3,698</td>
</tr>
</tbody>
</table>

### SCHEDULE 14-GRANTS/SUBSIDIES

<table>
<thead>
<tr>
<th>Current Year</th>
<th>Current Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Irrevocable Grant &amp; Subsidies Received)-Through Aiims Main</td>
<td></td>
</tr>
<tr>
<td>1) Central Government</td>
<td>-</td>
</tr>
<tr>
<td><strong>Revenue General (Plan)</strong></td>
<td></td>
</tr>
<tr>
<td>(ii) Grant in Aid- (Salary)</td>
<td>-</td>
</tr>
<tr>
<td>(iii) Grant in Aid- (General)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Non Plan</strong></td>
<td>699,245</td>
</tr>
<tr>
<td>(ii) Grant in Aid- (Salary)</td>
<td>-</td>
</tr>
<tr>
<td>2) State Government(s)</td>
<td>-</td>
</tr>
<tr>
<td>3) Governments Agencies</td>
<td>-</td>
</tr>
<tr>
<td>4) Institutions/Welfare Bodies</td>
<td>-</td>
</tr>
<tr>
<td>5) International Organisations</td>
<td>-</td>
</tr>
<tr>
<td>6) Others (Specify)</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>699,245</td>
</tr>
</tbody>
</table>
### Schedule 15 - Fees/Subscriptions

<table>
<thead>
<tr>
<th>Item</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Entrance Fees</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2) Annual Fees/Subscriptions</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3) Seminar/Program Fees</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4) Consultancy Fees</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5) Tender Fees</td>
<td>-</td>
<td>4,500.00</td>
</tr>
<tr>
<td>6) Other Income</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>-</td>
<td>4,500.00</td>
</tr>
</tbody>
</table>

**Note:** Accounting Policies towards each item are to be disclosed.

### Schedule 16 - Income from Investments

<table>
<thead>
<tr>
<th>Income Source</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Interest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Govt. Securities</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Other Bonds/Debentures</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2) Dividends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Shares</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) On Mutual Fund Securities</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3) Rents</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4) Other (Specify)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note:** Transferred to earmarked/endowment funds.
### SCHEDULE 17- INCOME FROM ROYALTY, PUBLICATION ETC.

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Income from Royalty</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2) Income from Publications</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3) Others (Specify)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### SCHEDULE 18- INTEREST EARNED

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1) On Term Deposits</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Schedule Banks (CNC Main)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) With Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2) On Savings Accounts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) With Schedule Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) With Non-Scheduled Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) With Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3) On Loans</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Employee/Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4) Interest on Debtors and Other Receivables</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note:** Tax deducted at source to be indicated


**SCHEDULE 19- OTHER INCOME**

<table>
<thead>
<tr>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Profit on Sale/disposal of Assets</td>
<td></td>
</tr>
<tr>
<td>a) Owned assets</td>
<td>-</td>
</tr>
<tr>
<td>b) Assets acquired out of grants, or received free of cost</td>
<td>-</td>
</tr>
<tr>
<td>2) Export Incentives realized</td>
<td></td>
</tr>
<tr>
<td>a) Liquid Damage</td>
<td>-</td>
</tr>
<tr>
<td>3) Fees for Miscellaneous Services</td>
<td></td>
</tr>
<tr>
<td>4) Miscellaneous Receipt</td>
<td></td>
</tr>
<tr>
<td>5) Lice. Fee Recovery</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>-</td>
</tr>
</tbody>
</table>

**SCHEDULE 20- INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS**

<table>
<thead>
<tr>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Closing stock</td>
<td></td>
</tr>
<tr>
<td>Finished Goods</td>
<td>-</td>
</tr>
<tr>
<td>Work-In-Progress</td>
<td>-</td>
</tr>
<tr>
<td>b) Less: Opening Stock</td>
<td></td>
</tr>
<tr>
<td>Finished Goods</td>
<td>-</td>
</tr>
<tr>
<td>Work-In-Progress</td>
<td>-</td>
</tr>
<tr>
<td><strong>NET INCREASE/(DECREASE) [a-b]</strong></td>
<td>-</td>
</tr>
</tbody>
</table>

**SCHEDULE 21- ESTABLISHMENT EXPENSES**

<table>
<thead>
<tr>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Salaries and Wages (Plan)</td>
<td></td>
</tr>
<tr>
<td>b) Salaries and Wages (Non-Plan)</td>
<td></td>
</tr>
<tr>
<td>c) Contribution to Provident Fund</td>
<td></td>
</tr>
<tr>
<td>d) Contribution to Other Fund - (NPS)</td>
<td></td>
</tr>
<tr>
<td>e) Staff Welfare Expenses</td>
<td></td>
</tr>
<tr>
<td>f) Expenses on Employees Retirement and Terminal Benefits</td>
<td></td>
</tr>
<tr>
<td>g) Travelling and Conveyance Expenses</td>
<td>3,698</td>
</tr>
<tr>
<td>h) Others (specify)</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>-</td>
</tr>
</tbody>
</table>
### Schedule 22 - Other Administrative Expenses Etc.

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imprest</td>
<td>-</td>
<td>42,535</td>
</tr>
<tr>
<td>Manpower (Outsourced)</td>
<td>293,861</td>
<td>118,554</td>
</tr>
<tr>
<td>Refreshments</td>
<td>-</td>
<td>95,894</td>
</tr>
<tr>
<td>Others (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>293,861</td>
<td>256,983</td>
</tr>
</tbody>
</table>

### Schedule 22 (A) Payments Made Against Funds for Various Projects

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSC Poor Patients</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Others (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>-</td>
<td>0</td>
</tr>
</tbody>
</table>
### SCHEDULE 23- Material & Supply

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material &amp; Supply</td>
<td>405,359</td>
<td>569,904</td>
</tr>
<tr>
<td>Others (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>405,359</td>
<td>569,904</td>
</tr>
</tbody>
</table>

(Amount in Rs.)

### SCHEDULE 24- EXPENDITURE ON GRANTS SUBSIDIES ETC.

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Grants given to Institutions/Organisations</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Subsidies given to Institutions/Organisations</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note- Name of the Entities, their Activities along with the amount of Grants/Subsidies are to be disclosed.

### SCHEDULE 25- INTEREST & FINANCE EXPENSES

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) On Fixed Loans</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) On Other Loans (including Bank Charges)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>c) Bank Charges</td>
<td>-</td>
<td>1,553</td>
</tr>
<tr>
<td>d) Others (specify)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>-</td>
<td>1,553</td>
</tr>
</tbody>
</table>

(Amount in Rs.)
## STATEMENT SHOWING THE EXPENDITURE OF THE GRANT RECEIVED FOR THE VARIOUS RESEARCH PROJECTS FOR THE YEAR 2018-19

<table>
<thead>
<tr>
<th>FUNDING AGENCY</th>
<th>RECEIPT</th>
<th>AMOUNT</th>
<th>Funding Agency</th>
<th>Expenditure</th>
<th>Estd Expenditure</th>
<th>Undisbursed Expenditure</th>
<th>Total Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(A)</td>
<td>(B)</td>
<td>(C)= (A)+ (B)</td>
<td>(D)</td>
</tr>
<tr>
<td><strong>Opening Balance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash In Hand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30,000.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bank Accounts -</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIIMS DBT RESEARCH ACCOUNT</td>
<td>315,341,541.12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIIMS DST RESEARCH ACCOUNT</td>
<td>145,694,567.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIIMS ICAR RESEARCH ACCOUNT</td>
<td>97,898,247.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIMS ICAR RESEARCH ACCOUNT</td>
<td>159,625,642.00</td>
<td>718,559,997.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Grant Received from A.I.I.M.S.**

| Institute Research Grant | 50,000,000.00 |  |  |  |  |  |  |
| Intramural Research | 45,825,786.00 |  |  |  |  |  |  |
| Expenditure |  |  |  |  |  |  |  |
| **FUNDING AGENCY** | **RECEIPT** | **AMOUNT** | **FUNDING AGENCY** | **RECEIPT** | **AMOUNT** | **FUNDING AGENCY** | **RECEIPT** | **AMOUNT** |
| **Opening Balance** |  |  |  |  |  |  |  |
| Cash In Hand |  |  |  |  |  |  |  |
| 30,000.00 |
| **Bank Accounts -** |  |  |  |  |  |  |  |
| AIIMS DBT RESEARCH ACCOUNT | 315,341,541.12 |  |  |  |  |  |  |
| AIIMS DST RESEARCH ACCOUNT | 145,694,567.13 |  |  |  |  |  |  |
| AIIMS ICAR RESEARCH ACCOUNT | 97,898,247.00 |  |  |  |  |  |  |
| AIMS ICAR RESEARCH ACCOUNT | 159,625,642.00 | 718,559,997.25 |  |  |  |  |  |

**Grant Received from A.I.I.M.S.**

| Institute Research Grant | 50,000,000.00 |  |  |  |  |  |  |
| Intramural Research | 45,825,786.00 |  |  |  |  |  |  |
| Expenditure |  |  |  |  |  |  |  |

**FUNDING AGENCY** | **RECEIPT** | **AMOUNT** | **FUNDING AGENCY** | **RECEIPT** | **AMOUNT** | **FUNDING AGENCY** | **RECEIPT** | **AMOUNT** |
| **Opening Balance** |  |  |  |  |  |  |  |
| Cash In Hand |  |  |  |  |  |  |  |
| 30,000.00 |
| **Bank Accounts -** |  |  |  |  |  |  |  |
| AIIMS DBT RESEARCH ACCOUNT | 315,341,541.12 |  |  |  |  |  |  |
| AIIMS DST RESEARCH ACCOUNT | 145,694,567.13 |  |  |  |  |  |  |
| AIIMS ICAR RESEARCH ACCOUNT | 97,898,247.00 |  |  |  |  |  |  |
| AIMS ICAR RESEARCH ACCOUNT | 159,625,642.00 | 718,559,997.25 |  |  |  |  |  |

**Grant Received from A.I.I.M.S.**

| Institute Research Grant | 50,000,000.00 |  |  |  |  |  |  |
| Intramural Research | 45,825,786.00 |  |  |  |  |  |  |
| Expenditure |  |  |  |  |  |  |  |

### Notes:
- **AIIMS** Account Numbers:
  - AIIMS DBT RESEARCH ACCOUNT: 315,341,541.12
  - AIIMS DST RESEARCH ACCOUNT: 145,694,567.13
  - AIIMS ICAR RESEARCH ACCOUNT: 97,898,247.00
- **Expenditure** includes both Estd and Undisbursed Expenditure.
- **Total Expenditure** is the sum of **Expenditure** and **Undisbursed Expenditure**.
AIIMS 2018-19 / 1074

IIFCL
INCLEN
India Medtronic Pvt. Ltd

Fermish Clinical Technologist Pvt Ltd
Find India
Genelife Clinical Research Pvt Ltd.
GILEAD Sciences, Inc., California
Glaxo Smith Kline
Hamilton Health Sciences Corporation, Canada
Hetero Biopharma Limited
Hindustan Latex Ltd.
IADR,U.S.A.
IADVL
ICMR
ICON Clinical Reserach India Pvt. Ltd.

Excel Life Sciences Pvt Ltd.
FDC Limited

Dr. Reddys Lab. . Ltd.
DST
Duke University Usa
Eli Lilly and Company Pvt. Ltd
Endocrine Society of India
European Commission

Diagno Searchlifesciences Pvt Ltd.
Directorate of Education (NSS)
DNDi Switzerland
DRDO

Delhi State Control Society/AIIDS
Department of Health and Human Services Centers for
Disease Control, USA
Department of Health Research
Department of Information & Technology

Deptt Of woman & child Development

DBT
DEFENSE INSTIT. OF PHY.& ALLIED SCIENCES
(DIPAS)
Delhi Rheumatology Association

Cutting Edge Medical Devices Pct Ltd ,IIT Delhi

1,284,315.00
25,000,000.00
44,637.00
1,637,364.00

321,250.00
404,424,747.00

4,282,173.00
57,578.00
673,533.00
376,749.00
663,097.00
648,133.00
900,000.00

1,133,975.00

1,116,672.00
832,529.00

705,572.00
167,400,989.00
1,116,778.00
315,647.00
100,000.00

8,755,903.00
20,320,425.60

969,435.00

12,611,448.00
978,500.00
704,928.00

75,000.00
5,120,910.00
596,439.00

9.00
330,378,401.00

IIFCL
INCLEN
India Medtronic Pvt. Ltd

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Find India
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Glaxo Smith Kline
Hamilton Health Sciences Corporation, Canada
Hetero Biopharma Limited
Hindustan Latex Ltd.
IADR,U.S.A.
IADVL
ICMR
ICON Clinical Reserach India Pvt. Ltd.

Excel Life Sciences Pvt Ltd.
FDC Limited

Delhi State Control Society/AIIDS
Department of Health and Human Services Centers
for Disease Control, USA
Department of Health Research
Department of Information & Technology
Department of Information & Technology Upto 31st
Dec
Grant transfed from Scheme Fund to DIETY
Diagno Searchlifesciences Pvt Ltd.
Directorate of Education (NSS)
DNDi Switzerland
D.R.D.O.
DGrant transfed from Scheme Fund to DRDO
Dr. Reddys Lab. . Ltd.
DST
Duke University Usa
Eli Lilly and Company Pvt. Ltd
Endocrine Society of India
European Commission

DBT
DEFENSE INSTIT. OF PHY.& ALLIED SCIENCES
(DIPAS)
Delhi Rheumatology Association

CEO,Azure Software Pvt Ltd.
Christian Medical College,Vellore
Christoffel Blindenmission(CBM) India
Cognitive Health Rahabilitation Systems LLP
CONQUER CANCER FOUNDATION
Covance India Pharma Pvt Ltd.
CSIR
Cuddles Foundation
CUREHEALTH Diagnostics Pvt Ltd

Centre for Health Research and Innovation (CHRI)

Centre for Health Research and Innovation (CHRI)

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822,382.00
2,305,380.00
3,652,915.00
225,000.00
1,306,069.00
459,470.00
27,292,311.00
593,108.00

Central Council for Research in Yoga & Naturopathy

Central Council for Research in Yoga & Naturopathy

CEO,Azure Software Pvt Ltd.
Christian Medical College,Vellore
Christoffel Blindenmission(CBM) India
Cognitive Health Rahabilitation Systems LLP
CONQUER CANCER FOUNDATION
Covance India Pharma Pvt Ltd.
CSIR
Cuddles Foundation
CUREHEALTH Diagnostics Pvt Ltd

Central Council for Research in Unani Medicine

Central Council for Research in Unani Medicine

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5,110,760.00
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628,166.00
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210,646,667.86

335,176.00

382,226.00


AIIMS 2018-19 / 1075

Newron Pharmaceuticals S.P.A.

NIE
National Cancer Grid Reserch
National Innovation Foundation
National Institute for Health Research
National Institute of Health, USA
National Institute of Mental Health, NH USA
National Perinatal Epidemioology Unit, University O

M/S Markansas Research Division

M/S Beckman Coulter Pvt. Ltd.
M/s Gilead Sciences Inc. USA

Ministry of Social Justice and Empowerment

Ministry of Health & Family Welfare-DHR
Ministry of Home Affair

Meril Life Sciences Pvt Ltd.
Metrohm India Ltd
Ministry of Health And Family Walfare(N.A.C.O)
Ministry of Health & Family Welfare
Ministry of Health & Family Welfare (Ayush)
Ministry of Health & Family Welfare (Ayush) Others Upto
July-31

Media Lab Asia
Medpace

Indo German Science and Technology Centre, Govt of
India
Indo-US Science & Technology Forum
Innaccel Tech Pvt Ltd.
INSA
INTAS Pharmaceticals Ltd.
International Atomic Energy Agency
International Union Against Tuberculosos and Lung
Disease
Invictus Oncology
Ipca Labortoris
I.S.H.T.M.
Janssen
JIV Daya Foundation
Johnson & Johnson
JSS Medical Research India Pvt Ltd.
Kempegowda Institute of Medical Sciences
KHANDELWAL LABORATORIES LTD.
KlinEra
Lab India Healthcare
Lady Tata Memorial Trust
Lambda Therapeutic Research Ltd.
Lebara Foundation
LG Life Sciences India Pvt. Ltd.
LUPIN LIMITED
Mc Master University Canada

Indo--French Centre for the Promotion of Advanced
Research

Indian Council of Agriculture Research
Indian Institute of Public Health Hyderabad

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Newron Pharmaceuticals S.P.A.

NIE
National Cancer Grid Reserch
National Innovation Foundation
National Institute for Health Research
National Institute of Health, USA
National Institute of Mental Health, NH USA
National Perinatal Epidemioology Unit, University O

M/S Beckman Coulter Pvt. Ltd.
M/s Gilead Sciences Inc. USA

Ministry of Social Justice and Empowerment

Meril Life Sciences Pvt Ltd.
Metrohm India Ltd
Ministry of Health And Family Walfare(N.A.C.O)
Ministry of Health & Family Welfare
Ministry of Health & Family Welfare (Ayush)
Ministry of Health & Family Welfare (Ayush) Others
Upto July-31
Grant transferd from Scheme fund to Ayush
Ministry of Health & Family Welfare-DHR
Ministry of Home Affair

Indo German Science and Technology Centre, Govt of
India
Indo-US Science & Technology Forum
Innaccel Tech Pvt Ltd.
INSA
INTAS Pharmaceticals Ltd.
International Atomic Energy Agency
International Union Against Tuberculosos and Lung
Disease
Invictus Oncology
Ipca Labortoris
I.S.H.T.M.
Janssen
JIV Daya Foundation
Johnson & Johnson
JSS Medical Research India Pvt Ltd.
Kempegowda Institute of Medical Sciences
KHANDELWAL LABORATORIES LTD.
KlinEra
Lab India Healthcare
Lady Tata Memorial Trust
Lambda Therapeutic Research Ltd.
Lebara Foundation
LG Life Sciences India Pvt. Ltd.
LUPIN LIMITED
Mc Master University Canada

Indo--French Centre for the Promotion of Advanced
Research

Indian Council of Agriculture Research
Indian Institute of Public Health Hyderabad

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668,304.00

346,669.00


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AIIMS 2018-19 / 1076
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Jr. Accounts Officer
Research Section

ACCOUNTS OFFICER
Research Section
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AIIMS 2018-19 / 1081

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MCMaster University, Canada
Hamilton Health Sciences
Corporation, Canada
Helpage India
Hetero Biopharma Limited
Himalaya Drug Co.
Hindustan Latex Family Planning
Promotion
Hindustan Latex Limited
Horiba India Pvt Ltd
IADVL
ICCSR
ICGE&B
ICMR

138 Global Cancer Concern India
139 GW Pharma Ltd UK
140 Hamilton Health Sciences &

137 Genelife Clinical Research Pvt Ltd.

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134 Glaxo India Ltd
135 Glaxo Smith Kline
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Duke University Usa

Donations/Grant
Dr Reddys Lab Pvt Ltd
DRDE(Gwallior)
DRDO
DST

Eli Lilly
Emcure Pharmacetical Ltd
EMMES Corporation, Maryland,
USA
Endronic Society of India
European Commission
Federation of Obstetric &
Gynaecological
Flamentera AG, Switzerland
DNDi Switzerland
Excel Life Sciences Pvt Ltd.
FDC Limited
Fogarty International Centre,NIH,
USA
Fondazione Angelo Bianchi
Bonomi, Milan- Italy
Ford Foundation
FREEDOM TRIAL
Fermish Clinical Technologist Pvt
Ltd
Find India
Fulford India Ltd
George Insititute for Global
Health, India
GILEAD Sciences, Inc., California

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Stryker Global Technology Center
Pvt Ltd.
Sun Pharmaceuticals
Swami Sivananda Memoral
Institute
SWAYAM (Ministry of HRD)
Synergy Network India Pvt Ltd,
Syenergy Environics Ltd.
Tech Observer India Pvt. Ltd
Texas A&M Research Foundation
(TAMRF) USA
The Cancer Foundation
The Energey and Resources
Institute
The George Institute for
International Health, Australia

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USA
Torrent Pharmaceutical Ltd
Troikaa Pharmaceutical Ltd
UCLAN, UK
UGC
Unique Biotech Ltd
UN International Drug and crime
Control Programme
UNICEF

372 THRESHOLD PHARMACEUTICALS,

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371

368
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ASIA
The Service de Dermatologie,
France
The University of Albama, USA
The University of Edingburgh and
NHS Lothian
THSTI
The Indian Ashthma Care Society

366 THE MICRONUTRIENT INITIATIVE,

364 The Media Lab Asia
365 The Medical Research Council, UK

Paediatric Neurosurgery (ISPNE)

363 The International Society for

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345 Solvey Pharma Ltd
346 SRB-Clinical Pharamacology
347 St Jhon Medical College Banglore

Gastrointestinal and Endoscopic
Surgeons
344 Solumiks Herbaceuticals Limited

343 Society of American

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<td>162,100.00</td>
<td>-</td>
</tr>
<tr>
<td>117</td>
<td>Vellim Ramalingaswami Foundation (6,308.00)</td>
<td>6,308.00</td>
<td>6,308.00</td>
<td>-</td>
<td>6,308.00</td>
<td>-</td>
<td>6,308.00</td>
<td>-</td>
</tr>
<tr>
<td>118</td>
<td>Vellim Ramalingaswami Foundation</td>
<td>10,498.00</td>
<td>10,498.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10,498.00</td>
<td>-</td>
</tr>
<tr>
<td>119</td>
<td>Walter Bushnell</td>
<td>63,344.00</td>
<td>808,324.00</td>
<td>932,688.00</td>
<td>-</td>
<td>88,682.00</td>
<td>88,682.00</td>
<td>-</td>
</tr>
<tr>
<td>120</td>
<td>Welcome Trust London, UK</td>
<td>2,317,852.25</td>
<td>2,489,305.25</td>
<td>2,39,856.00</td>
<td>7,900.00</td>
<td>2,345,866.00</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>121</td>
<td>WHO</td>
<td>20,142,861.12</td>
<td>10,638,372.00</td>
<td>10,782,378.00</td>
<td>36,212.00</td>
<td>10,818,390.00</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>122</td>
<td>Wockhardt, Mumbai</td>
<td>1,176,899.00</td>
<td>1,176,899.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,176,899.00</td>
<td>-</td>
</tr>
<tr>
<td>123</td>
<td>Wockhardt Ltd</td>
<td>121,624.33</td>
<td>18,050.00</td>
<td>130,624.33</td>
<td>121,625.00</td>
<td>-</td>
<td>121,625.00</td>
<td>-</td>
</tr>
<tr>
<td>124</td>
<td>Wockhardt Ltd</td>
<td>32,037.00</td>
<td>32,037.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>32,037.00</td>
<td>-</td>
</tr>
<tr>
<td>125</td>
<td>Wockhardt Ltd</td>
<td>81,993.00</td>
<td>81,993.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>81,993.00</td>
<td>-</td>
</tr>
<tr>
<td>126</td>
<td>Wockhardt Ltd</td>
<td>448,200.00</td>
<td>448,200.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>448,200.00</td>
<td>-</td>
</tr>
<tr>
<td>127</td>
<td>Wockhardt Ltd</td>
<td>(398.00)</td>
<td>(398.00)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>398.00</td>
<td>-</td>
</tr>
<tr>
<td>128</td>
<td>Wockhardt Ltd</td>
<td>764,194.00</td>
<td>764,194.00</td>
<td>764,194.00</td>
<td>-</td>
<td>-</td>
<td>764,194.00</td>
<td>-</td>
</tr>
<tr>
<td>129</td>
<td>Wockhardt Ltd</td>
<td>1,528,769.30</td>
<td>-</td>
<td>1,528,769.30</td>
<td>-</td>
<td>1,528,769.30</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>130</td>
<td>Wockhardt Ltd</td>
<td>-</td>
<td>706,346.00</td>
<td>706,346.00</td>
<td>-</td>
<td>-</td>
<td>706,346.00</td>
<td>(706,346.00)</td>
</tr>
<tr>
<td>131</td>
<td>Wockhardt Ltd</td>
<td>-</td>
<td>-</td>
<td>24,315,565.00</td>
<td>-</td>
<td>24,315,565.00</td>
<td>24,315,565.00</td>
<td>-</td>
</tr>
<tr>
<td>132</td>
<td>Wockhardt Ltd</td>
<td>-</td>
<td>702,299.00</td>
<td>702,299.00</td>
<td>702,299.00</td>
<td>-</td>
<td>702,299.00</td>
<td>-</td>
</tr>
<tr>
<td>133</td>
<td>Wockhardt Ltd</td>
<td>17,530,265.60</td>
<td>17,530,265.60</td>
<td>17,530,265.60</td>
<td>17,530,265.60</td>
<td>-</td>
<td>17,530,265.60</td>
<td>-</td>
</tr>
<tr>
<td>134</td>
<td>Wockhardt Ltd</td>
<td>-</td>
<td>2,518,897.00</td>
<td>-</td>
<td>2,518,897.00</td>
<td>-</td>
<td>2,518,897.00</td>
<td>-</td>
</tr>
<tr>
<td>135</td>
<td>Wockhardt Ltd</td>
<td>150,780.00</td>
<td>150,780.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>150,780.00</td>
<td>-</td>
</tr>
<tr>
<td>136</td>
<td>Wockhardt Ltd</td>
<td>76,465.77</td>
<td>76,465.77</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>76,465.77</td>
<td>-</td>
</tr>
<tr>
<td>137</td>
<td>Wockhardt Ltd</td>
<td>832,424.00</td>
<td>832,424.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>832,424.00</td>
<td>-</td>
</tr>
<tr>
<td>138</td>
<td>Wockhardt Ltd</td>
<td>201,947.00</td>
<td>201,947.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>201,947.00</td>
<td>-</td>
</tr>
<tr>
<td>139</td>
<td>Wockhardt Ltd</td>
<td>109,890.00</td>
<td>109,890.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>109,890.00</td>
<td>-</td>
</tr>
<tr>
<td>140</td>
<td>Wockhardt Ltd</td>
<td>241,092.00</td>
<td>241,092.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>241,092.00</td>
<td>-</td>
</tr>
</tbody>
</table>

Additional notes:
- Grant transferred from Scheme Fund to Ayush
  - Grant transferred from Scheme Fund to DIETT
  - Grant transferred from Scheme Fund to DRDO
  - Credit in Scheme Fund Account instead of Ayush
  - Credit In Scheme Fund Account instead of Ayush Account
  - Ministry of Health And Family Welfare (N.A.C.O)
  - Ministry of Health And Family Welfare (N.A.C.O)
  - Ministry of Health And Family Welfare (N.A.C.O)
  - Ministry of Health And Family Welfare (N.A.C.O)
  - Ministry of Health And Family Welfare (N.A.C.O)
<table>
<thead>
<tr>
<th>Sr.</th>
<th>Company Name</th>
<th>Code</th>
<th>Amount</th>
<th>Balance</th>
<th>Total Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>42</td>
<td>India Medtronic Pvt. Ltd.</td>
<td>161</td>
<td>161,100.00</td>
<td></td>
<td>161,100.00</td>
</tr>
<tr>
<td>42</td>
<td>Meril Life Sciences Pvt Ltd.</td>
<td>118</td>
<td>118,800.00</td>
<td></td>
<td>118,800.00</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>977,041,773.97</strong></td>
<td><strong>93,255,700.33</strong></td>
<td><strong>1,621,390,047.71</strong></td>
</tr>
</tbody>
</table>

Jr. Accounts Officer  
Research Section

ACCOUNTS OFFICER  
Research Section
13.2. Audit Report

Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of All India Institute of Medical Sciences (AIIMS), New Delhi for the year ended 31 March 2019

1. We have audited the attached Balance Sheet of All India Institute of Medical Sciences (AIIMS), New Delhi, as at 31 March 2019, the Income & Expenditure Account and Receipts & Payments Account for the year ended on that date under Section 19 (2) of the Comptroller and Auditor General’s (Duties, Powers & Conditions of Service) Act, 1971 read with section 18 (2) of the AIIMS Act, 1956. These financial statements are the responsibility of the AIIMS management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller and Auditor General (CAG) of India on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules & Regulations (Propriety and Regularity) and efficiency-cum-performance aspects, etc., if any, are reported through Inspection Reports/CAG’s Audit Reports separately.

3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:
   i. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit;
   ii. The Balance Sheet, Income & Expenditure Account and Receipts & Payments Account dealt with by this report have been drawn up in the uniform format of accounts approved by the Ministry of Finance, Government of India.
   iii. In our opinion, proper books of accounts on double entry system of accounting and other relevant records have been maintained by the AIIMS in so far as it appears from our examination of such books.
   iv. We further report that:

A. Balance Sheet

A.1 Liabilities

A.1.1 Secured Loans & Borrowings - AIIMS (Main) (Schedule – 7)

A.1.1.1 A loan of ₹525.00 crore was sanctioned by Higher Education Financing Agency (HEFA) for capital expenditure for National Cancer Institute (NCI), Jhajjar Centre of AIIMS. Out of this sanctioned amount, ₹282.00 crore has been released during the year 2018-19. On behalf of the AIIMS, this amount was paid directly to the executing agencies i.e. M/s HSCC and M/s HITES by HEFA. It was noticed that the AIIMS has not included this amount in the accounts for the year 2018-19. This resulted in the understatement of Liabilities as well as Current Assets (Advances) by ₹282.00 crore.

A.1.2 Current Liabilities and Provisions-AIIMS (Main) (Schedule – 7) - ₹253.40 crore

A.1.2.1 An amount of ₹6.41 crore has been depicted as liability on account of custom duty in the total current liabilities of ₹249.98 crore. However, during the year 2018-19, an advance of ₹4.90 crore paid by Cardio Thoracic & Neuro Sciences Centre (CNC) has not been accounted for in annual accounts of AIIMS (Main). This resulted in understatement of current Liabilities and Current Assets by ₹4.90 crore each.

A.1.2.2 The above head is overstated by ₹2.00 crore due to wrong entry in the subhead of NPS. This amount was balanced by adding the equal amount in the FDR by depicting it ₹24.00 crore instead of ₹22.00 crore. Consequently, Current Assets were also overstated by the same amount.

A.1.3 Current Liabilities and Provisions-Centre for Dental Education & Research (CDER) (Schedule – 7) - ₹0.78 crore

A.1.3.1 An amount of ₹0.19 crore has been incurred by the AIIMS (Main) on account of custom duty payment for the equipments purchased by the CDER. The said amount was not included in the balance sheet of the CDER, which resulted in to the understatement of Current Liabilities and Fixed Assets by ₹0.19 crore each.

A.1.3.2 As per MoU signed between AIIMS and Ministry of Health and Family Welfare, a National Level Referral and Research Institute of Dental Sciences (NRRIDS) was to be setup within the premises of AIIMS. In this connection,
amount of ₹9.00 crore was received by the CDER for this purpose from the Ministry, however, the amount and interest earned on this amount was not accounted for in the CDER accounts. This has resulted in understatement of Liabilities and Current Assets (Bank Balances) by the like amount.

A.1.4 Current Liabilities and Provisions-Cardio Thoracic & Neuro Sciences Centre (CNC) (Schedule – 8) - ₹6.17 crore

A.1.4.1 AIIMS has a current account (35984705875) for the purpose of receiving hospital receipts though Credit/Debit cards. In this account, receipts related to the AIIMS (Mains) and all other centres are credited through the POS machines at 10 terminals and receipts in respect of each account is transferred to the account of respective centres after the closure of the month. It was noticed that an amount of ₹2.63 crore pertaining to the CNC A/c, Angio Pt A/c, CT Patient A/c, Gamma Knife Pt A/c and NS Pt A/c for the month of March 2019 was not accounted for in the receipts of the CNC. This resulted into the understatement of Current Assets amounting to ₹2.63 crore, understatement of Liability of ₹2.01 crore and understatement of Income ₹0.62 crore.

A.2 Assets

A.2.1 Current Assets, Loans & Advances AIIMS (Main) (Schedule-11) - ₹1610.07 crore

A.2.1.1 During 2018-19, an escrow account was opened by AIIMS for the purpose of repayment of loan and interest thereof to HEFA in respect a loan of ₹525.00 crore which was sanctioned by HEFA to AIIMS for National Cancer Institute (NCI), Jhajjhar. AIIMS deposited ₹26.25 crore in this account and depicted the same as repayments made to HEFA. However, the repayment was to be started in the year 2019-20. Therefore, as on 31.03.2019, amount of ₹26.25 crore was available in the escrow account of AIIMS. AIIMS did not include this bank account in the balance sheet resulting in the understatement of Current Assets (Bank Balances) and overstatement of payments by the like amount.

A.2.1.2 Exam Section of AIIMS maintained a bank account for the purpose of making payments to external examiners. Advance payments received from AIIMS (Main) are deposited in this account for making of payments to external examiners. Scrutiny of records revealed that this bank account was not included in the annual accounts and the advance payments deposited in this accounts are treated as expenditure. As on 31.03.2019 an amount of ₹12.08 lakh was available in this account, therefore non-inclusion of this bank account in the balance sheet resulted in the overstatement of expenditure and understatement of Current Assets by ₹12.08 lakh.

B General

B.1 Schedule 8 – ‘Fixed Assets’, of the annual accounts of the AIIMS (Main) and other centres of the AIIMS disclosed assets valued at ₹5031.93 crore as on 31 March 2019. However, an Assets Register required to be maintained in Form GFR-22 under General Financial Rules 2017 was not maintained by the AIIMS. In the absence of Assets Register, the value of assets could not be verified in audit.

B.2 As on 31.03.2019, there were huge un-reconciled balances in the bank pertaining to AIIMS (Main) and other Centres as detailed below:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of unit</th>
<th>Particulars</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AIIMS (Main)</td>
<td>Cheques deposited but not credited by Bank</td>
<td>27,72,28,225</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Excess debited by Bank</td>
<td>39,89,938</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Excess credit given by Bank</td>
<td>67,96,825</td>
</tr>
<tr>
<td>2</td>
<td>CNC</td>
<td>Excess debited by Bank</td>
<td>7,08,09,511</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cheques deposited but not credited by Bank</td>
<td>4,85,716</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RTGS returned back to A/c</td>
<td>2,89,64,185</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Excess Credit given by Bank</td>
<td>11,38,30,941</td>
</tr>
<tr>
<td>3</td>
<td>RPC</td>
<td>Cheques deposited but not credited by Bank</td>
<td>2,04,55,302</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unknown credits raised by bank (+ figures)</td>
<td>28,20,777</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unknown debits raised by bank (- figures)</td>
<td>10,71,234</td>
</tr>
</tbody>
</table>

The matter should be taken - up with bank to reconcile the differences promptly.

B.3 As required under Rule 47 of Receipt & Payment Rules, a cheque remaining unpaid for more than six month from the date of issue and not surrendered for renewal should be cancelled and its amount should also be written back in the accounts. Scrutiny revealed that 2805 number of outstanding cheques/RTGS amounting to ₹1894.81 lakh, remained unpaid for six months after the date of its issue and not surrendered for renewal as on 31.03.2019, were neither cancelled nor were their amounts written back in the accounts. Details are given below:
<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of unit</th>
<th>No of cheques/RTGS outstanding</th>
<th>Amount (₹ in lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AIIMS (Main)</td>
<td>2728</td>
<td>1728.82</td>
</tr>
<tr>
<td>2</td>
<td>CNC</td>
<td>9</td>
<td>144.26</td>
</tr>
<tr>
<td>3</td>
<td>RPC</td>
<td>68</td>
<td>21.73</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>2805</strong></td>
<td><strong>1894.81</strong></td>
</tr>
</tbody>
</table>

This has resulted in understatement of Bank balances and Current Liabilities by ₹18.95 crore each.

**B.4** No depreciation has been charged by the AIIMS on fixed assets of ₹5031.93 crore i.e. machinery and equipments, vehicles, buildings, Computers/Peripherals and library books etc. as required under AS - 6 of ICAI. In the absence of which audit is unable to certify the actual value of fixed assets and its impact on accounts.

**B.5** There are ten Centres including AIIMS (Main) which are maintaining separate accounts. However, AIIMS has not prepared consolidated accounts by consolidating accounts of all the Centres.

**B.6** The provision of retirement benefits has not been made in the accounts on actuarial basis as required under Accounting Standard (AS-15) of ICAI.

**B.7** In Schedule-11 (Current Assets, Loans & Advances etc.) of annual accounts of AIIMS (Main), ₹23.41 lakh has been shown as Advances for purchase of iron and steel under the head - “Loans”. This amount is being carried forwarded over the years. This needs to be reviewed and reconciled.

**B.8** In Schedule- 11B of annual accounts of CDER, the Centre has shown several advances which included advances paid to NDMC of ₹23.65 lakh, Security deposit to NDMC of ₹30 lakh and advance paid to DGS&D of ₹4.69 lakh. These advances were more than six years old. Neither review of overdue advances nor provision for the same has been made in the accounts.

**B.9** In Schedule-12A (Current Assets) of annual accounts of CNC, ₹32.45 lakh has been shown as ‘Sundry Debtors’. This amount is being carried forwarded over the years. Year-wise and party-wise details of the said debtors were not available with the Centre. Review of these debtors had also not been carried out by the Centre.

**B.10** As per Schedule-12B (Loans Advances and Other Assets) of annual accounts of CNC, ₹17.46 crore and ₹4.91 crore have been shown as ‘Advance against Work’ and ‘Machinery & Equipments, respectively, which were transferred from CT Patients A/c’. These amounts are being carried forwarded over the years. These advances have neither been adjusted nor has any review been carried out for adjustment thereof.

**B.11** In contravention of Uniform Format of Accounts, the AIIMS has maintained its annual accounts on cash basis instead of on accrual basis.

**C. Grant-in-aid**

During the year 2018-19, AIIMS received total grants of ₹3234.75 crore from Ministry of Health & Family Welfare. The Institute had an internal receipt of ₹217.96 crore and also had an unspent balance of ₹106.45 crore for previous year 2017-18. Out of total fund of ₹3559.16 crore the AIIMS utilised ₹3124.95 crore leaving unspent balance of ₹434.21 crore as on 31 March 2019. Besides, AIIMS received grants for various schemes amounting to ₹162.14 crore and incurred expenditure amounting to ₹124.73 crore.

**D. Management Letter**

Deficiencies which have not been included in the Audit Report have been brought to the notice of management of Institute through a management letter issued separately for remedial/corrective action.

v. Subject to our observations in the preceding paragraphs, we report that the Balance Sheet, Income & Expenditure Account and Receipt & Payment Account dealt with by this report are in agreement with the books of accounts.

vi. In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts and subject to the significant matters stated above and other matters mentioned in Annexure-I to this Audit Report give a true and fair view in conformity with accounting principles generally accepted in India.

a. In so far as it relates to the Balance Sheet of the state of affairs of All India Institute of Medical Sciences as at 31 March 2019; and

b. In so far as it relates to Income & Expenditure Account of the surplus for the year ended on that date.

For and on behalf of C&AG of India

-Sd-

Director General of Audit

(Central Expenditure)
1. Adequacy of internal audit system
During 2018-19, out of 144 units, only 33 units were planned and audited by the internal wing of the AIIMS. There was no internal audit manual.

2. Adequacy of Internal Control System
   i. 103 paras of external audit for the period from 1996-98 to 2017-18 were outstanding as on 31 March 2019.
   ii. The AIIMS was not maintaining fixed assets register as per the prescribed format.
   iii. Huge bank balances were pending that were not reconciled.
   iv. AIIMS (Main) maintained two bank accounts for the payment of Custom duty and demurrage charges. However, there is no cash book and reconciliation statement is being prepared for these accounts and the figures in annual accounts are being taken as bank transactions instead of cash book. Therefore, expenditure incurred on the last days of the financial year is not been accounted for in the respective year.
   v. Institute as per its accounting policy are not accounting for closing stock of stores and supplies in the accounts and treated it as final expenditure at the time of payment. This has the impact of substantial value of store and supplies remained out of accounts.

3. System of physical verification of Assets
   The physical verification of fixed assets has been conducted upto 2018-19.

4. System of physical verification of inventory
   The physical verification of inventory like books and publications, stationery and other consumable has been conducted upto 2018-19.

5. Regularity in payment of dues
   As per accounts, no payments for over six months in respect of statutory dues were outstanding as on 31.03.2019.
The point wise replies to Separate Audit Report of All India Institute of Medical Sciences, New Delhi for the year ending 31.03.2019.

A. Balance Sheet

A.1 Liabilities

A.1.1 Secured Loans & Borrowings - AIIMS (Main) (Schedule – 7)

A.1.1.1 Necessary rectification entries will be made in the Annual Accounts of FY 2019-20.

A.1.2 Current Liabilities and Provisions - AIIMS (Main) (Schedule – 7) - ₹253.40 crore

A.1.2.1 Necessary rectification entries will be made in the Annual Accounts of FY 2019-20.

A.1.3 Current Liabilities and Provisions - Centre for Dental Education & Research (CDER) (Schedule – 7) - ₹0.78 crore

A.1.3.1 Necessary rectification entries will be made in the Annual Accounts of FY 2019-20.

A.1.4 Current Liabilities and Provisions - Cardio Thoracic & Neuro Sciences Centre (CNC) (Schedule – 8) - ₹6.17 crore

A.1.4.1 The amount has been accounted for in current FY 2019-20 and necessary entries will be made in the accounts of 2019-20. However, the same has been noted for future compliance.

A.2 Assets

A.2.1 Current Assets, Loans & Advances AIIMS (Main) (Schedule-11) - ₹1610.07 crore

A.2.1.1 The repayments have been made as per sanction and loan agreement signed with HEFA. However necessary rectification entries will be made in the Annual Accounts of FY 2019-20.

B General

B.1 Noted for future compliance.

B.2 Major amount of outstanding cheques has been reconciled. The efforts are being made for settlement of remaining outstanding un-reconciled bank balances. The special efforts are being made in this regard and matter has been taken up at the zonal level for providing complete detail of debit by the bank so that the same could be reconciled.

B.3 The action is being taken on outstanding cheques more than six month old as per rule 47 of Receipt and Payment Rules.

B.4 The depreciation policy has been framed and approved by competent authority. This would be adopted simultaneously with adoption of accrual system of accounting.

B.5 As directed by Audit the necessary note will be inserted in next accounts. Noted for compliance.

B.6 The observation of the Audit has been noted for future compliance. Provisions will be made once the accounts of the Institute are prepared on accrual basis.

B.7 The efforts are being for liquidation of outstanding advance of Rs 23.41 lakh.

B.8 Noted for future compliance.

B.9 The efforts are being made to find out the party wise details of sundry debtors for their early liquidation.

B.10 The efforts for adjustment are being initiated to clear these advances.

B.11 Noted for compliance.

C. Grant-in-aid

No comments.

D. Management Letter

Noted for future compliance.
1. Adequacy of internal audit system
The target of Internal Audit of 33 auditee units has been achieved by Internal Audit Wing of the Institute despite shortage of manpower. Simultaneously efforts are being made to strengthen internal audit system by putting in more internal control system and enhancing Internal Audit Manpower.

2. Adequacy of Internal Control System
The vigorous efforts are being made to settle the old outstanding paras by obtaining tenable and suitable replies from the concerned departments/centres.
The asset register are being maintained by the concerned department and the store section. The same could be verified during next audit.
The vigorous efforts are being carried out to reconcile the bank balances.
The point is noted for future compliance.

3. System of physical verification of Assets
Physical Verification of fixed assets for the period (2018-19) have been carried out. Physical verification report of all the centres and most of the department have been received. These physical verification report also does not have any major deviation/shortages. The Physical Verification Reports have been shown to the Audit Party.

4. System of physical verification of inventory
The physical verification of library, stationery store and consumable have been carried out. Physical verification report of all the centres and most of the department have been received. These physical verification report also does not have any major deviation/shortages. The Physical Verification Reports have been shown to the Audit Party.

5. Regularity in payment of dues
Factual information, no comments.