



शरीरमाद्यं खलुधर्मसाधनम्

59th AIIMS ANNUAL REPORT 2014-2015



ALL INDIA INSTITUTE OF MEDICAL SCIENCES
NEW DELHI - 110029

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2014-2015



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**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
NEW DELHI- 110029**

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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 post graduate 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 52 disciplines. AIIMS is a leader in the field of medical research with over 2000 research publications by its faculty and 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 pre-clinical and 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.

**AIIMS AT A GLANCE
2014–2015**

Year of establishment 1956

Teaching Departments and Centres	55	Medical graduates	2788
Faculty members (Sanctioned 869)	640	Postgraduates	9047
Non-faculty staff (Sanctioned 10865)	9300	Nursing/paramedical graduates	2904
No. of Undergraduate students	839	Publications in journals/abstracts	2194
No. of Postgraduate students	1446	Chapters in books/books/monographs	308

Hospital Services

Hospital/ Centre	Outpatients (including casualty)	Admissions	Surgery (Operations/ procedures)	General	Beds Private	Total
Main Hosp.	17,50,197	96,689	73,882	982	165	1147
Dr. R.P. Centre	3,74,947	38,333	38,974	281	21	302
Dr. BRA, IRCH	1,38,125	38,058	8,202	167	15	182
C.T. Centre	1,61,399	12,039	4,090	185	33	218
N.S. Centre	1,21,757	8,682	3,546	174	30	204
NDDTC	83,034	1,054	—	50	0	50
C.C.M.	3,89,677	10,807	2,789	50	0	50
JPNAT Centre	97,373	5,290	5,678	186	0	186
CDER <i>[includes 20 Beds & 80 Dental Chairs]</i>	44,343	971	13,953	100	0	100
Outreach OPD, Badsha, Jhajjar	62,889	—	—			
Total	33,41,297	2,11,923	1,51,114	2175	264	2439

*1 bed (pvt.) is used 6 months by NS Centre and 6 months by CT Centre

Hospital performance indices	2014-15		Comments
	Main Hospital	CNC	
Average length of stay (days) *	4.3	6.8	Indicates effective utilization of beds.
Average bed occupancy rate (%)*	87.9	84.6	Indicates fair occupancy.
Net death rate (%)*	1.7	2.9	Indicates low mortality rate despite the fact that quite large no. of critically ill patients are admitted to the Hospital.
Combined crude infection rate (%)*	5.38	—	

*These figures are for AIIMS Main Hospital and Cardio-Neuro Centre only

CONTENTS

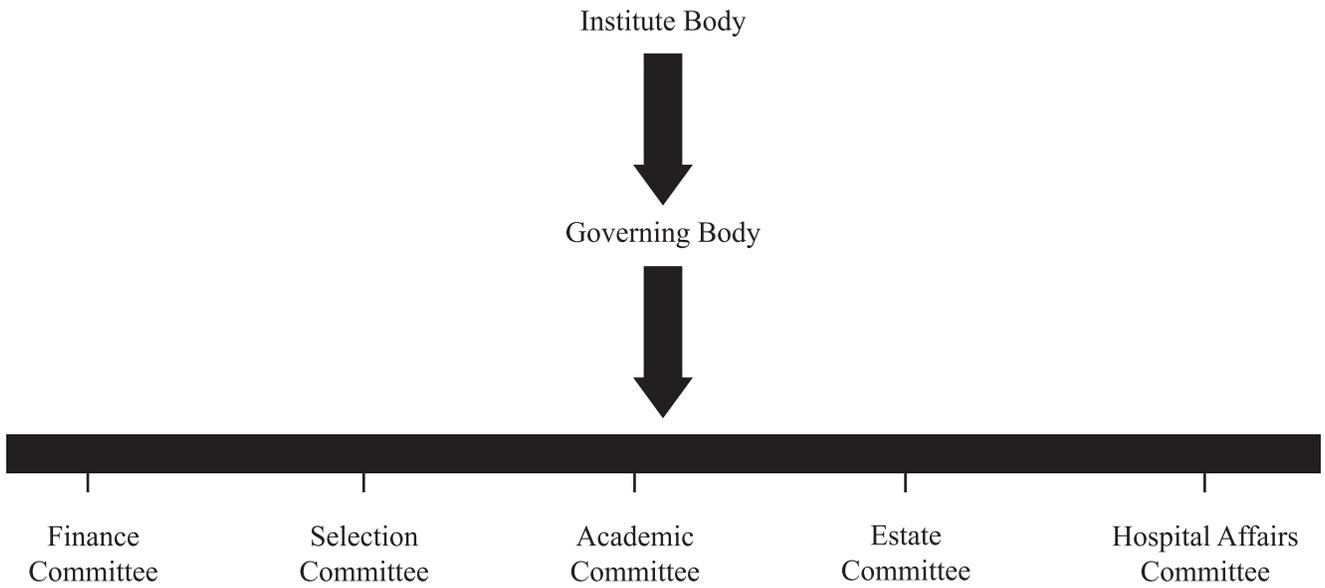
1.	Director's Review	1
2.	The Institute and its Committees	6
3.	Academic Section	11
4.	Examination Section	18
5.	General Administration	22
6.	Main Hospital	25
7.	College of Nursing	48
8.	Research Section	51
9	Departments	
9.1	Anaesthesiology	62
9.2	Anatomy	70
9.3	Biochemistry	79
9.4	Biomedical Engineering	86
9.5	Biophysics	89
9.6	Biostatistics	92
9.7	Biotechnology	101
9.8	Centre for Community Medicine	104
9.9	Dermatology and Venereology	118
9.10	Emergency Medicine	124
9.11	Endocrinology and Metabolism	126
9.12	Forensic Medicine and Toxicology	133
9.13	Gastroenterology and Human Nutrition	136
9.14	Gastrointestinal Surgery and Liver Transplantation	145
9.15	Geriatric Medicine	148
9.16	Haematology	151
9.17	Hospital Administration	154
9.18	Laboratory Medicine	158
9.19	Medicine	169
9.20	Microbiology	177
9.21	Nephrology	186
9.22	Nuclear Magnetic Resonance	191
9.23	Nuclear Medicine	196
9.24	Obstetrics and Gynaecology	200
9.25	Orthopaedics	212
9.26	Otorhinolaryngology and Head-Neck Surgery	218
9.27	Paediatrics	222
9.28	Paediatric Surgery	243
9.29	Pathology	250
9.30	Pharmacology	259
9.31	Physical Medicine and Rehabilitation	265
9.32	Physiology	269
9.33	Psychiatry	279
9.34	Pulmonary Medicine and Sleep Disorders	288
9.35	Radiodiagnosis	293
9.36	Reproductive Biology	301
9.37	Surgical Disciplines	305

9.38	Transplant Immunology and Immunogenetics	311
9.39	Urology	315
10.	Centres	
10.1	Cardiothoracic Centre	320
10.2	Centre for Dental Education and Research	344
10.3	Dr B. R. Ambedkar Institute Rotary Cancer Hospital	351
10.4	Dr Rajendra Prasad Centre for Ophthalmic Sciences	374
10.5	Jai Prakash Narayan Apex Trauma Centre	389
10.6	National Drug Dependence Treatment Centre	413
10.7	Neurosciences Centre	420
11.	Central Facilities	
11.1	B.B Dikshit Library	450
11.2	Cafeteria	452
11.3	Central Animal Facility	454
11.4	Central Workshop	456
11.5	Computer Facility	458
11.6	Electron Microscope Facility	466
11.7	Hostel Section	468
11.8	Institution Ethics Committee	470
11.9	K.L. Wig Centre for Medical Education and Technology	471
11.10	Media and Protocol Division	473
12.	Publications	474
13.	Finance Division	
13.1	Budget and Finance	600
13.2	Audit Report	684



AIIMS

ORGANISATION STRUCTURE



1. Director's Review

I feel privileged to present the Fifty-ninth Annual Report and audited statement of accounts for the year 2014–2015. All India Institute of Medical Sciences (AIIMS), New Delhi made great progress in this period in improving the health of the people of India and neighbouring countries. AIIMS, New Delhi also continued to inspire and train its faculty and students to prepare for the challenges and opportunities that lie ahead. I am pleased to highlight in this report a few of our remarkable achievements.



Established in 1956 by an Act of the Indian Parliament with the objective of developing a strong curricular foundation for undergraduate and postgraduate healthcare education in India based on Rajkumari Amrit Kaur's vision, AIIMS, New Delhi continually seeks to achieve a high standard of healthcare education, research and service. It is recognized world-wide as India's best medical institution that combines excellent medical education with cutting-edge research and quality healthcare. In addition, this year we pledged to make AIIMS, India's first public hospital to become completely environment-friendly so that it can rightfully carry the 'green healthcare tag.'

Going Green

AIIMS, New Delhi supported by The Energy and Resources Institute (TERI) set in motion wheels of change towards going green. AIIMS plans to conserve energy, maximise use of solar energy and other natural resources, reduce water consumption, have in place water conservation and waste water recycling systems, and work on urban heat island effect to reduce microclimate heat by 3 °C, energy consumption by 30% and water consumption by 50%. Towards this end, we undertook an extensive energy audit and created a data centre for superior energy-saving performance with the help of Hitachi India. The demonstration project will enable the tracking and visualisation of the hospital's overall energy use by putting an information technology system environment in place and through upgradation to very efficient systems and equipments.



Education



AIIMS, New Delhi is expanding to meet the demands of our rapidly evolving profession. The Anaesthesiology Unit of Dr B.R. Ambedkar Institute Rotary Cancer Hospital was upgraded to a Department of Anesthesiology, Pain and Palliative Care with two new courses: MD (Palliative Medicine) and DM (Onco-Anaesthesiology).

AIIMS, New Delhi continues to educate the next generation of leaders in medicine and science. AIIMS topped India Today's best medical schools league table for the 12th year in a row by earning the top scores in all parameters under consideration. This it achieved by fostering a rich learning environment, in terms of clinical exposure to varied patient groups and myriad diseases, integrated care under experts from diverse fields, innovative teaching, and a work culture that puts the 'patient first.' With its 7 centres comprising of various teaching departments and facilities and 39 stand-alone Departments, and a manpower of over 10,000 including over 600 faculty members, AIIMS, New Delhi produces a large number of 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 798 scholars in various courses. AIIMS has introduced a new learning management system to support the

Some Quotes from students

“I have seen underprivileged people fall through the cracks of our healthcare system. As a doctor, I will help reduce disparities in care.”

“The country has contributed immensely to my education at AIIMS. I hope to repay the country’s trust by a relentless pursuit of excellence in healthcare and research.”

“I wish to pursue translational research as it helps convert academic science to a science that impacts people’s lives.”

curriculum. It utilizes information technology to build a comprehensive calendar of events and provide a mechanism for real-time feedback. By training young innovators to creatively ask and solve complex scientific questions, AIIMS is preparing them for challenging careers in biomedical research, academia and industry.

Under its short term training scheme, the Institute provided postgraduate training to 722 short-term trainees, 19 long-term trainees, 12 WHO fellows (foreign nationals) under the WHO fellowship programme, and 12 WHO fellows (Indian nationals) under the WHO-in-country fellowship training programme. AIIMS, New Delhi also continued to play a mentorship role for AIIMS at Bhopal, Bhubaneswar, Jodhpur, Patna, Raipur and Rishikesh; and conducted entrance examinations and counselling leading to final selection of students to the MBBS and BSc (Hons) Nursing courses for them.

AIIMS continually reviews how medicine and science are taught so as to nurture a passion for scholarship and innovation. AIIMS expanded the use of technical aids such as animations and videos across various specializations like surgery, orthopaedics and radiotherapy. The Anatomy department expanded its e-Learning facility to facilitate “Blended Learning;” and the Department of Anaesthesia consolidated the use of its state-of-the-art high-fidelity Human Patient Simulation system and Anaesthesia Skills Laboratory to provide training to students and trainees.

AIIMS continues to provide innovative instructional opportunities to an expanding number of learners both nationally and regionally. AIIMS offered Continuing Medical Education to thousands of physicians and healthcare professionals to help improve skills, increase knowledge and improve performance. We organized/hosted over 150 workshops, symposia, conferences and training programmes in collaboration with various national and international agencies. The Division of Neonatology, Department of Paediatrics conducted courses in Essential Newborn Care and Sick Newborn Care with skill learning at participating institutions. Courses were administered to students from Maldives, Sri Lanka, Bangladesh, Nepal, Pakistan, Mauritius and India. The Department of Neurology initiated a regular continuing medical education programme on multiple sclerosis. The Jai Prakash Narayan Advanced Trauma Centre (JPNATC) continues to make a major contribution towards capacity building in improving trauma care across India. The Department of Surgical Disciplines trained more than 100 surgeons from all over India in laparoscopic surgery at the Minimally Invasive Surgery Training Centre. The Dr Rajendra Prasad Centre for Ophthalmic Sciences (RPCOS) created a new surgical training facility ‘National Surgical Skill Development Centre’ for training in ophthalmic surgical skills. The Organ Retrieval and Banking Organization (ORBO) conducted training programmes on cadaver organ and tissue donation process for nurses. And, the National Drug Dependence Treatment Centre (NDDTC) continued to be heavily invested in capacity building for states in India and for neighbouring countries. These continuing education programmes were designed to meet the needs of medical and research professionals whose work requires a deeper understanding of health systems, healthcare and science.

The general public also benefits from the guidance of trusted AIIMS health publications. The Organ Retrieval and Banking Organization (ORBO) conducted awareness campaigns on organ and tissue donation. Similar awareness campaigns were organized by the Department of Neurology for epilepsy. Bon-D-Light Express, a joint initiative of AIIMS and HEAL Foundation, in collaboration with Glenmark Pharmaceuticals undertook a journey spanning 15 cities to create awareness about Vitamin D and its importance for a person’s health and wellness.

Patient care

The hospital has been able to maintain high standards of quality while seeing large numbers of patients at very low cost to patients. The AIIMS main hospital and its centres - Cardiothoracic and Neurosciences Centre (CN Centre), Jai Prakash Narain Apex Trauma Centre (JPNATC), Dr B.R. Ambedkar Institute-Rotary Cancer Hospital (BRAIRCH), Dr Rajendra Prasad Centre for Ophthalmic Sciences (RPCOS), Centre for Dental Education and Research (CDER), National Drug Dependence Treatment Centre (NDDTC) - have a total bed strength of 2439, including day care beds. During the year 2014-2015, AIIMS attended to about 33.41 lakh outpatients and 2.11 lakh inpatients and performed over 1.5 lakh surgical procedures at optimal patient care service parameters with average bed occupancy of about 86%, and average hospital stay of about 5.5 days. The AIIMS hospital reported a net death rate of about 2%. While AIIMS advanced the delivery of healthcare in India, it also took up a leadership role in service delivery for the developing world, particularly for South and Southeast Asia.

AIIMS, New Delhi successfully computerized its appointment process and hence could provide unique health identification (UHID) number to all its patients. The UHID enables people to seek an appointment with their doctors through the Institute's patient portal. A mobile application was launched to facilitate booking of appointments and checking laboratory reports. AIIMS has sought support from Helpage India to assist elderly and children in receiving priority for OPD appointments online. Further, a 'Nursing Informatics' programme was launched to train employees in conducting tele-consultations to facilitate follow-up care for patients with common non-emergent problems such as infection, nausea and side-effects. The Institute also started the process of integration of its major centres - cardio, neuro, dental, eye and cancer - through computerised networking.

Under guidance of the Ministry of Health and Family Welfare, doctors at AIIMS, New Delhi were directed to prescribe generic medicines (whose pharmacological effects are exactly the same as those of their brand-name counterparts). Generic medicines play an important role in rational prescribing, reducing treatment costs and improving patient care. The Institute also plans to construct a 10-storey dharamshala block to accommodate more than 360 people. It will provide a clean, comfortable and safe residential facility for patients who come for treatment and follow-up, and the relatives and attendants of these patients. A Memorandum of Understanding was signed with the Power Grid Corporation of India Ltd, which has donated Rs. 29 crores as the first instalment under its corporate social responsibility towards this activity.

The Government of India has announced that a National Institute of Ageing (NIA) will be set up at AIIMS, New Delhi to cater to the needs of the elderly population that has increased four-fold since 1951.

A dedicated corridor was built from the AIIMS hospital to the trauma centre to reduce travel time between the two from thirty minutes to three minutes. The Institute has also tied up with the National Disaster Response Force (NDRF) for providing medical care during disaster response operations. AIIMS will provide medical experts, nurses and paramedics for deployment along with search and rescue teams of NDRF during major natural disasters within the country. The collaboration will also focus on capacity building initiatives.

An advanced Neurobiology laboratory, named after Emeritus Professor of Neurosurgery, Professor P.N. Tandon, was inaugurated as part of the Centre for Excellence for Epilepsy. The laboratory will serve the needs of patients with drug-resistant epilepsy, who comprise about 25%–30% of all epilepsy patients and often require a surgical option to cure their disease.

AIIMS is supporting ICMR in gathering information to help forecast drug-resistance patterns that may surface in the future. The ICMR's antimicrobial surveillance and research network is tracking the resistance pattern of six pathogens causing diarrhoea, typhoid, fungal infections and infections that patients acquire in hospitals and intensive care units (ICUs).

A measure of faith

Be it the Ebola scare or dengue outbreak, AIIMS continues to be India's go to centre.

Voice of conscience

Faculty of AIIMS initiated the Society for Less Investigative Medicine (SLIM)-a movement that aims to take on the menace of excessive medical investigations under skewed economic incentives.

The Honourable Prime Minister's address during the 42nd Convocation of AIIMS

“India needs to step up its medical research to keep pace with a changing world.”

Notes of caution

A study led by AIIMS, Delhi revealed that bone marrow stem cell treatment has no added benefit over the conventional treatment in stroke. The study was published in the journal “Stroke.” Hence, people suffering from ischaemic stroke should exercise caution while opting for stem cell therapy.

A study conducted at AIIMS showed that GeneXpert, an investigation used to diagnose multidrug resistant tuberculosis gives inaccurate results in approximately 35 per cent of Rifampicin resistance cases. This study was published in the *Journal of Clinical Microbiology*.

Research

The efforts to better understand, treat and prevent disease are supported and enhanced by our extraordinary biomedical research enterprise. In 2014–2015, the research community at AIIMS contributed significantly to scholarship through its leadership in innovations and publications. Over 570 funded research projects were conducted and the Institute attracted extramural research grants of more than Rs. 70 crores in cutting edge areas. During the year the faculty and scientists of the Institute initiated 109 research projects and published over 1900 research papers in national and international journals and over 300 monographs, books and chapters in books.

Essential to the enterprise of discovery and learning at AIIMS is our Research Cell's constant drive to develop effective new methods for educating the next generation of researchers and scientists. In addition, intramural grants of Rs. 5 crores were disbursed to talented young faculty members for undertaking 64 new research projects.

The 10-storey Convergence Block was handed over to the Institute after completion early this year. It houses teaching rooms, laboratories, research units and a ‘knowledge centre’. The knowledge centre will serve as a state-of-the-art facility for knowledge expansion and conduct of technology-driven research. It will assemble massive amounts of healthcare data as well as data on molecular and biological systems. It is envisaged that the use of sophisticated bioinformatics tools on these data sets will help clinicians serve even individual patients better, i.e. patterns emerging from clinical observations, laboratory results, genetics, genomics and environmental influences, combined with the latest knowledge from medical research could be used at the bedside. The burgeoning field of biomedical informatics reflects the speed with which huge volumes of data can now be collected and analyzed, allowing us to more closely study health and disease.

AIIMS took up key initiatives to encourage integration and collaboration across the world to accelerate scientific breakthroughs. Notable in this regard was the Prime Minister of Australia, Anthony John Abbott's announcement of 20 million Australian dollars support for the extension of the Australia-India Strategic Research Fund. The two countries will cooperate in the areas of preventive healthcare, trauma care, geriatric medicine, diabetes research and mental illnesses. AIIMS also established a collaborative research and development programme with the Osaka University in Japan for affordable low cost surgical devices.

The AIIMS Stem Cell Facility was started in 2005 with support of Department of Biotechnology as a Centre of Excellence for stem cell research. It was upgraded this year to a unit with current Good Manufacturing Practices (cGMP). Clinical research/trials have been initiated for ocular surface reconstruction, retinitis pigmentosa, dilated cardiomyopathy, myocardial infarction, stroke, peripheral vascular disease, biliary atresia and vitiligo. Some of the initial bench research findings have been translated to patients in clinics, e.g. recently, a new technique called the SealBio technique was developed by a team of doctors at Centre for Dental Education and Research, AIIMS to cure and regenerate an infected root canal through stem cell activation.

An indigenously developed rotavirus vaccine, pioneered at AIIMS, could soon start saving the lives of thousands of children aged less than five years from a mass killer - rotavirus diarrhoea. In India, the disease annually kills over 100,000 children below the age of one. According to results published recently in the *Lancet*, a Phase III trial of the rotavirus vaccine 116E was found to be safe and efficacious in preventing severe rotavirus gastroenteritis in infants during their first year of life. The vaccine, which would be made available to the government at not more than Rs. 100 a dose, is expected to be licensed shortly. Similarly, collaboration between AIIMS and IIT Delhi led to the development of a mobile phone-size haemoglobin metre. The device, validated by AIIMS for its efficacy, is expected to help identify and tackle anaemia. India with a very high prevalence of anaemia also sees a large number of maternal deaths from the condition. The device is expected to be at least ten times cheaper than other similar devices available in the market.

Public Health

AIIMS exploration, discovery and teaching extend beyond New Delhi. AIIMS faculty are often consulted for development of public policies designed to improve the healthcare system by national and international bodies. Some of these include: ORBO contributed in framing guidelines on whole body donation and organ retrieval in medico-legal cases; the Department of Pulmonary Medicine and Sleep Disorders drafted the Indian Initiative on Obstructive Sleep Apnea (INOSA) Guidelines (2014, first ed.), which aims at accreditation of Sleep Labs, rational prescription of positive airway pressure (PAP) therapy and re-imburement of PAP equipments across India; and the Division of Neonatology of the Department of Paediatrics did about 20 systematic reviews for World Health Organization, Geneva for development of global guidelines on care of sick preterm neonates.

The Centre for Community Medicine continues to serve as the nodal agency that provides technical support to HIV sentinel surveillance in five northern states (Bihar, Delhi, Jharkhand, UP and Uttarakhand). The department of Geriatric Medicine serves as a nodal centre for training and referral for the states of Haryana, Himachal Pradesh, Madhya Pradesh, Punjab, Uttarakhand and National Capital Region of Delhi. The Department of Transplant Immunology and Immunogenetics offers a national level Quality Control and Quality Assurance (QC/QA) service to nearly 15 centres engaged in HLA testing all over India.

The Centre for Community Medicine also houses the WHO Collaborating Centre for Capacity Development and Research in Community based NCDPC. The CDER was designated a Collaborating Centre for Oral Health Promotion by World Health Organization; and a National Centre of Excellence for implementation of the National Oral Health Program by the Ministry of Health and Family Welfare, Government of India. The NDDTC is a National Resource Centre and was designated the Regional Learning Centre by United Nations Office on Drugs and Crime (UNODC) and a WHO Collaborating Centre. The Division of Neonatology, Department of Paediatrics was designated a WHO Collaborating Centre and as an Advanced Centre for Newborn Health Research by ICMR. The Department of Transplant Immunology and Immunogenetics was designated a 'Centre of Excellence in Molecular Medicine' by the Indian Council of Medical Research. The department of Geriatric Medicine was designated a Regional Medical Institution by the Ministry of Health and Family Welfare. The Department of Medicine was designated as Centre of Excellence for Extra-pulmonary-TB (EPTB) by the Ministry of Health and Family Welfare.

Achievements

Driving achievement at AIIMS are the many exceptional members of our community. Among the many recognitions received by our faculty this year, perhaps the most prestigious was the Padma Shri, the fourth highest civilian award, bestowed for contributions to the fields of medicine. The recipients were: Professor Randeep Guleria, Professor Alka Kriplani, Professor Yog Raj Sharma and Professor Nikhil Tandon. I am honoured to work with such a brilliant group of colleagues.

AIIMS has made a genuine effort to meet its mandate of assisting the government in its endeavour to provide quality healthcare to our people through innovative education, dedicated service provision, and cutting-edge biomedical research. It has been a rare privilege to serve this superb institution and to work with so many truly exceptional people. As always, I extend my deepest gratitude to every person at AIIMS whose commitment has made it the colossus that it is!

M.C. Misra
Director

2. The Institute and its Committees

INSTITUTE BODY

- 1. Shri Ghulam Nabi Azad**
Union Minister for Health and Family Welfare,
Nirman Bhawan, New Delhi 110011

President
(upto 12 June 2014)
- Dr Harsh Vardhan**
Union Minister for Health and Family Welfare,
Nirman Bhawan, New Delhi 110011

President
(13 June 2014 to
4 December 2014)
- Shri Jagat Prakash Nadda**
Union Minister for Health and Family Welfare,
Nirman Bhawan, New Delhi 110011

President
(from 5 December 2014)
- 2. Smt Sushma Swaraj, MP (Lok Sabha)**
8, Safdarjung Lane, New Delhi 110011

Member
(upto 18 May 2014)
- Shri Ramesh Bidhuri, MP (Lok Sabha)**
H. No.179, Sunpath House,
Village Tughlakabad, New Delhi 110044

Member
(from 10 September 2014)
- 3. Dr Jyoti Mirdha, MP (Lok Sabha)**
875, Sector-17B, Gurgaon, Haryana 122001

Member
(upto 18 May 2014)
- Shri Parvesh Sahib Singh Verma, MP (Lok Sabha)**
1/14B, Shanti Niketan, New Delhi

Member
(from 10 September 2014)
- 4. Shri Motilal Vora, MP (Rajya Sabha)**
33, Lodhi Estate, New Delhi 110011

Member
(upto 18 May 2014)
- 5. Shri Ashok Thakur**
Secretary, Department of Higher Education,
Ministry of Human Resource Development,
Shastri Bhawan, New Delhi 110001

Member
(upto 22 February 2015)
- Shri S.N. Mohanty**
Secretary, Department of Higher Education,
Ministry of Human Resource Development,
Shastri Bhawan, New Delhi 110001

Member
(from 23 February 2015)
- 6. Dr M.K. Bhan**
F-14 Hauz Khas Enclave, New Delhi

Member
- 7. Shri Lov Verma**
Secretary, Ministry of Health and Family Welfare,
Nirman Bhawan, New Delhi 110011

Member
(upto 3 March 2015)
- Shri Bhanu Pratap Sharma**
Secretary, Ministry of Health and Family Welfare,
Nirman Bhawan, New Delhi 110011

Member
(from 4 March 2015)

- | | |
|---|---|
| <p>8. Professor Dinesh Singh
Vice Chancellor, University of Delhi, Delhi 110007</p> | <p>Member
(Ex-Officio)</p> |
| <p>9. Dr Jagdish Prasad
Director General of Health Services,
Government of India, Nirman Bhawan, New Delhi 110011</p> | <p>Member
(Ex-Officio)</p> |
| <p>10. Professor K.K. Talwar
C-Block, 625, IInd Floor, New Friends Colony, New Delhi</p> | <p>Member</p> |
| <p>11. Dr R.A Badwe
Director, Tata Memorial Hospital, Dr E. Borges Road
Lower Parel, Mumbai, Maharashtra</p> | <p>Member</p> |
| <p>12. Dr Ramakant Panda
Vice Chairman, Asian Heart Institute, Bandra East
Mumbai, Maharashtra</p> | <p>Member</p> |
| <p>13. Dr S.P. Agarwal
Secretary General, Indian Red Cross Society,
Rafi Marg, New Delhi</p> | <p>Member</p> |
| <p>14. Dr Abdul Hamid Zargar
Medical Director, Advance Centre for Diabetes and
Endocrine Care, National Highway, Gulshan Nagar
Nowgaon, Srinagar 190015, Jammu and Kashmir</p> | <p>Member</p> |
| <p>15. Shri Gautam Guha
Additional Secretary and Financial Adviser
Ministry of Health and Family Welfare
Nirman Bhawan, New Delhi 110011</p> | <p>Member
(upto 22 February 2015)</p> |
| <p>Smt Vijaya Srivastava
Additional Secretary and Financial Adviser
Ministry of Health and Family Welfare
Nirman Bhawan, New Delhi 110011</p> | <p>Member
(from 23 February 2015)</p> |
| <p>16. Professor K.C. Pandey
Department of Zoology, Lucknow University,
Lucknow 226007, Uttar Pradesh</p> | <p>Member</p> |
| <p>17. Professor M.C. Misra
Director, All India Institute of Medical Sciences</p> | <p>Member Secretary</p> |
| <p>18. Shri Ali Raza Rizvi
Joint Secretary, Ministry of Health and Family Welfare
Nirman Bhawan, New Delhi 110011</p> | <p>Special Invitee</p> |
| <p>19. Professor P.K. Julka
Dean, All India Institute of Medical Sciences</p> | <p>Special Invitee</p> |
| <p>20. Dr D.K. Sharma
Medical Superintendent, All India Institute of Medical Sciences</p> | <p>Special Invitee</p> |

GOVERNING BODY

1. **Shri Ghulam Nabi Azad** Chairman (upto 12 June 2014)
Dr Harsh Vardhan Chairman (13 June 2014 to 4 December 2015)
Shri Jagat Prakash Nadda Chairman (from 5 December 2015)
2. **Smt. Sushma Swaraj, MP (Lok Sabha)** Member (upto 18 May 2014)
Shri Ramesh Bidhuri, M.P (Lok Sabha) Member (from 10 September 2014)
3. **Shri Motilal Vora, MP (Rajya Sabha)** Member (upto 14 May 2014)
4. **Shri Ashok Thakur** Member (upto 22 February 2015)
Shri S.N. Mohanty Member (from 23 February 2015)
5. **Shri Lov Verma** Member (upto 3 March 2015)
Shri Bhanu Pratap Sharma Member (from 4 March 2015)
6. **Professor K.K. Talwar** Member
7. **Dr R.A. Badwe** Member
8. **Dr Jagdish Prasad** Member (Ex-Officio)
9. **Dr S.P. Agarwal** Member
10. **Shri Gautam Guha** Member (upto 22 February 2015)
Smt Vijaya Srivastava Member (from 23 February 2015)
11. **Professor M.C. Misra** Member Secretary
12. **Shri Ali Raza Rizvi** Special Invitee
13. **Professor P.K. Julka** Special Invitee
14. **Dr D.K. Sharma** Special Invitee

STANDING FINANCE COMMITTEE

1. **Shri Lov Verma** Chairman (upto 3 March 2015)
Shri Bhanu Pratap Sharma Chairman (from 4 March 2015)
2. **Shri Motilal Vora, MP (Rajya Sabha)** Member (upto 14 May 2014)
Shri Parvesh Sahib Singh Verma, MP (Lok Sabha) Member (from 10 September 2014)
3. **Shri Ashok Thakur** Member (upto 22 February 2015)
Shri S.N. Mohanty Member (from 23 February 2015)

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| 4. Dr Jagdish Prasad | Member |
| 5. Professor Dinesh Singh | Member |
| 6. Shri Gautam Guha | Member (upto 22 February 2015) |
| Smt Vijaya Srivastava | Member (from 23 February 2015) |
| 7. Professor M.C. Misra | Member Secretary |
| 8. Professor P.K. Julka | Special Invitee |
| 9. Dr D.K. Sharma | Special Invitee |
| 10. Shri Ali Raza Rizvi | Special Invitee |

STANDING ACADEMIC COMMITTEE

- | | |
|--|---------------------------------|
| 1. Dr Jagdish Prasad | Chairman |
| 2. Dr Jyoti Mirdha, MP (Lok Sabha) | Member (upto 18 May 2014) |
| Shri Parvesh Sahib Singh Verma
MP (Lok Sabha) | Member (from 10 September 2014) |
| 3. Professor Dinesh Singh | Member |
| 4. Dr M.K. Bhan | Member |
| 5. Shri Ashok Thakur | Member (upto 22 February 2015) |
| Shri S.N. Mohanty | Member (from 23 February 2015) |
| 6. Dr Ramakant Panda | Member |
| 7. Professor K.C. Pandey | Member |
| 8. Dr Abdul Hamid Zargar | Member |
| 9. Professor M.C. Misra | Member Secretary |

STANDING ESTATE COMMITTEE

- | | |
|--|---------------------------------|
| 1. Dr S.P. Agarwal | Chairman |
| 2. Dr Jyoti Mirdha, MP (Lok Sabha) | Member (upto 18 May 2014) |
| Shri Ramesh Bidhuri, MP (Lok Sabha) | Member (from 10 September 2014) |
| 3. Dr M.K. Bhan | Member |
| 4. Professor K.K. Talwar | Member |
| 5. Dr R.A. Badwe | Member |
| 6. Dr Jagdish Prasad | Member |

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|--------------------------------|--------------------------------|
| 7. Shri Gautam Guha | Member (upto 22 February 2015) |
| Smt Vijaya Srivastava | Member (from 23 February 2015) |
| 8. Professor M.C. Misra | Member Secretary |
| 9. Professor P.K. Julka | Special Invitee |
| 10. Dr D.K. Sharma | Special Invitee |

STANDING HOSPITAL AFFAIRS COMMITTEE

- | | |
|---|-----------------------------------|
| 1. Shri Motilal Vora, MP (Rajya Sabha) | Chairman (upto 14 May 2014) |
| Shri Ramesh Bidhuri, MP (Lok Sabha) | Chairman (from 10 September 2014) |
| 2. Dr Jyoti Mirdha, MP (Lok Sabha) | Member (upto 18 May 2014) |
| 3. Dr R.A. Badwe | Member |
| 4. Professor K.C. Pandey | Member |
| 5. Dr Ramakant Panda | Member |
| 6. Professor K.K. Talwar | Member |
| 7. Dr Abdul Hamid Zargar | Member |
| 8. Professor M.C. Misra | Member Secretary |
| 9. Professor P.K. Julka | Special Invitee |
| 10. Dr D.K. Sharma | Special Invitee |

3. Academic Section

Dean

P. K. Julka

Sub-Dean

Virinder Kumar Bansal

Registrar

Sanjay Kumar Arya (upto 11 January 2015)

Sanjeev Lalwani (from 12 January 2015)

The Academic Section develops policy, 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 and Ophthalmic Techniques, 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 from July 2004 onwards. The MBBS course is of 5½ years duration and comprises of 3 phases and internship. The details are as follows:

Phase	Duration (years)	Training
First	One	Pre-clinical
Second	One-and-a-half	Para-clinical
Third	Two	Clinical
Internship	One	Compulsory rotation in various departments

In the MBBS course, at present, every year 72 Indian students (37 general, 11 SC, 5 ST and 19 OBC) are admitted. These selections were made based on an All-India Entrance Examination. For Orthopaedic physically handicapped (OPH) candidates 3% reservation was provided on horizontal basis. For these 72 seats, 76,014 applications were received and 58,002 candidates appeared in the entrance examination held on 1 June 2014. The MBBS students on rolls as on 31 March 2015 were 3383 including 72 interns.

Till 2011, there was provision for admitting 5 foreign nationals on the recommendations of Ministry of External Affairs, Government of India. However, this year no foreign nationals were admitted.

In this year, 6 meritorious MBBS students were awarded scholarships for securing first and second positions in the first, second and final phase of examinations.

Paramedical and Nursing Education

In 2014–15, 77 students (39 general, 12 SC, 5 ST and 21 OBC) were admitted to the BSc (Hons) Nursing course. For BSc Nursing (Post-certificate) course, 25 students (17 general, 2 SC, 3 ST and 3 OBC) were admitted.

For BSc (Hons) Ophthalmic Techniques, 19 students (10 general, 3 SC, 1 ST and 5 OBC) and BSc (Hons) Medical Technology in Radiography, 9 students (5 general, 1 SC, 1 ST and 2 OBC) were admitted. The number of students on rolls in these courses as on 31 March 2015 was:

Course	Number of students
<i>Nursing</i>	
BSc Nursing (Post-certificate)	45
BSc (Hons) Nursing	275
<i>Paramedical</i>	
BSc (Hons) Ophthalmic Techniques	46
BSc (Hons) Medical Technology in Radiography	24

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 PhD, DM, MCh, MD, MS, MDS, MHA, MBiotechnology (MBiotech) and MSc courses in different disciplines.

The 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 M. Biotech courses, for which the examination is held once a year. Under sponsored category, foreign nationals are admitted through the same entrance examination. In 2014–15, 596 students (including 15 Indian sponsored and 16 foreign nationals) were admitted to various courses. The number of postgraduate and doctoral students on roll as on 31 March 2015 was 1446.

Admissions in various courses in 2014–2015

S. No.	Name of course	July 2014	January 2015	Total
1	MSc/MBiotech/MSc Nursing (August)*	79	–	73
2	MD/MS/MDS/MHA (July)	192	159	351
3	DM/MCh (July)	43	49	92
4	PhD (July)	45	35	80
	Total	359	243	596

*Admissions are done once a year

Postgraduate students on rolls as on 31 March 2015

S. No.	Name of course	Number of students enrolled
1	PhD	436
2	DM	160
3	MCh	88
4	MD/MHA	523
5	MS	75
6	MDS	34
7	MSc/MBiotech/MSc Nursing	130
	Total	1446

Subject-wise distribution of PhD students on rolls as on 31 May 2015

S. No.	Subject	Open	Sponsored
1	Anaesthesiology (Dr BRA IRCH)	4	0
2	Anaesthesiology & Intensive Care (JPNATC)	1	0
3	Anatomy	30	0
4	Biochemistry	31	0
5	Biophysics	37	0
6	Biostatistics	6	0
7	Biotechnology	12	0
8	Blood Bank	1	0
9	Main Blood Bank	1	0
10	Cardiac Anaesthesiology	3	0
11	Centre for Community Medicine	2	0
12	Cardiac Biochemistry	3	0
13	Cardiac Radiology	1	0
14	Cardiothoracic and Vascular Surgery	2	0
15	Community Ophthalmology (Dr R.P. Centre)	2	0
16	Dental Surgery	2	0
17	Dermatology and Venereology	4	0
18	Emergency Medicine	2	0
19	Endocrinology and Metabolism	6	0
20	Forensic Medicine	4	0
21	Gastroenterology and Human Nutrition Unit	8	0
22	Geriatric Medicine	3	0
23	Haematology	8	0
24	Laboratory Medicine	15	0
25	Laboratory Oncology	1	0
26	Medical Oncology (Dr BRA IRCH)	5	0
27	Medical Physics (Dr BRA IRCH)	3	0
28	Medicine	9	0
29	Microbiology	26	2
30	Neuro-Anaesthesiology	1	0
31	Neurobiochemistry	3	0
32	Neuro Psychology (Neurosciences)	5	0
33	Neurology	25	0
34	Neurosurgery	9	0
35	Nuclear Magnetic Resonance	12	0
36	Nuclear Medicine	5	0
37	Obstetrics and Gynaecology	1	0

38	Ocular Biochemistry (Dr R.P. Centre)	4	0
39	Ocular Microbiology (Dr R.P. Centre)	1	0
40	Ocular Pathology (Dr R.P. Centre)	3	0
41	Ocular Pharmacology (Dr R.P. Centre)	5	0
42	Ophthalmology (Dr R.P. Centre)	6	0
43	Paediatrics	10	0
44	Paediatrics (Clinical/Epidemiology)	0	2
45	Paediatrics (Genetics/Basic Sciences)	9	1
46	Pathology	9	0
47	Pharmacology	15	0
48	Physiology	32	1
49	Psychiatry (Clinical Psychology)	6	0
50	Psychiatry (Addiction Psychiatry)	2	0
51	Pulmonary Medicine and Sleep Disorders	5	0
52	Radiation Oncology (IRCH)	2	0
53	Reproductive Biology	6	0
54	Radiotherapy	4	0
55	Surgery	5	0
56	Trauma Surgery	1	0
57	Transplant Immunology and Immunogenetics	12	0
	Total	430	6

Subject-wise distribution of DM students on rolls as on 31 March 2015

S. No.	Subject	Open	Sponsored
1	Cardiac Anaesthesiology	6	3
2	Cardiology	16	3
3	Clinical Haematology	5	2
4	Endocrinology	8	3
5	Gastroenterology	10	3
6	Haemato-Pathology	4	3
7	Medical Oncology	12	2
8	Neonatology	4	3
9	Nephrology	8	5
10	Neuroanaesthesiology	8	2
11	Neurology	15	3
12	Neuroradiology	3	2
13	Paediatric Neurology	6	3
14	Clinical Pharmacology	3	1
15	Pulmonary Medicine and Sleep Disorders	11	3
	Total	119	41

Subject-wise distribution of MCh students on rolls as on 31 March 2015

S. No.	Subject	Open	Sponsored
1	Cardiothoracic and Vascular Surgery	16	3
2	Neurosurgery	17	3
3	Gastrointestinal Surgery and Liver Transplantation	12	3
4	Paediatric Surgery	6	2
5	Urology	8	3
6	Surgical Oncology	12	3
	Total	71	17

Subject-wise distribution of MD/MS/MDS students on rolls as on 31 March 2015

S. No.	MD	Open	Sponsored
1	Anaesthesiology	36	3
2	Anatomy	16	0
3	Biochemistry	12	0
4	Biophysics	14	0
5	Community Medicine	21	0
6	Dermatology and Venereology	14	2
7	Forensic Medicine	9	0
8	Hospital Administration (MHA)	8	1
9	Laboratory Medicine	7	0
10	Medicine	55	3
11	Microbiology	10	0
12	Nuclear Medicine	13	3
13	Obstetrics and Gynaecology	42	3
14	Ophthalmology	104	4
15	Paediatrics	28	3
16	Pathology	17	1
17	Pharmacology	13	0
18	Physical Medicine and Rehabilitation	9	1
19	Physiology	11	0
20	Psychiatry	29	3
21	Radiodiagnosis	25	0
22	Radiotherapy	9	1
23	Geriatric Medicine	12	3
24	Emergency Medicine	9	3
	Total	523	34
	MS		
25	Orthopaedics	18	4
26	Otorhinolaryngology (ENT)	12	3
27	Surgery	45	3
	Total	75	10

	MDS		
28	Conservative Dentistry and Endodontics	9	1
29	Orthodontics	9	3
30	Prosthodontics	8	0
31	Oral and Maxillofacial Surgery	8	3
	Total	34	7
	Grand Total	632	51

Subject-wise distribution of MSc students on rolls as on 31 March 2015

S. No.	MSc	Open	Sponsored
1	Anatomy	8	1 (Foreign National)
2	Biochemistry	7	2 (Foreign National)
3	Biophysics	5	–
4	Pharmacology	7	1 (Foreign National)
5	Physiology	9	–
6	Perfusion Technology	10	–
7	Biotechnology	24	1 (Foreign National)
8	Nuclear Medicine Technology	9	–
	Total	79	5

Subject-wise distribution of MSc (Nursing) students on rolls as on 31 March 2015

S. No.	MSc (Nursing)	Open	Sponsored
1	Cardiological/CTVS Nursing	12	1 (Foreign National)
2	Neurosciences Nursing	3	–
3	Paediatric Nursing	12	–
4	Psychiatric Nursing	10	1 (Foreign National)
5	Oncological	7	–
	Total	44	2

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 2014–15, 851 persons underwent training as listed below:

S. No.	Training	Number of trainees
1	Short Term training: Indian nationals	675
2	Short Term training: Foreign nationals	47
3	Long Term training: Indian nationals	19
4	Elective Training: Foreign nationals (UG students)	54
5	WHO Fellows: Indian nationals	12
6	WHO Fellows: Foreign nationals	12
	Total	819

COMMITTEE MEETINGS

The Academic Section organized meetings of the Academic committee, Staff Council, Dean's Committee, Faculty and Research Presentations. The details are given below:

S. No.	Committee	Number of meetings
1	Academic Committee	2
2	Staff Council	1
3	Dean's Committee	2
4	Faculty (General Discussions)	8
5	Research Presentations	4

CONVOCATION

The 42nd Annual Convocation was held on 20 October 2014 at the Jawaharlal Auditorium, AIIMS, New Delhi. The Honourable Prime Minister of India, Shri Narendra Modi addressed the Convocation. He distributed Institute Medals/Awards to the outstanding meritorious students and delivered convocation address. The President, AIIMS and Honourable Minister of Health and Family Welfare, Government of India, Dr Harsh Vardhan distributed the degrees.

4. Examination Section

Professor In-charge (Exams)

S. Datta Gupta

Sub-Dean (Exams)

Nand Kumar

Ashok Kumar Jaryal (from 28 February 2015)

Assistant Controller of Examinations

O.P. Sharma (from 1 October 2014)

Accounts Officer

D.K. Gupta (from 10 September 2014)

The Examination Section conducted the following professional and entrance examinations.

Postgraduate and Undergraduate Professional Examinations

S. No.	Month and year	Examination	Number of Students			
			Appeared	Absent	Passed	Failed
1	May 2014	Final postgraduate/Postdoctoral	184	–	174	10
2	-do-	MSc (Nursing) Phase-I	022	–	022	–
3	-do-	MSc (Nursing) Phase-II	024	–	024	–
4	-do-	Second MBBS (Supplementary)	007	–	07	–
5	-do-	Final MBBS (Supplementary)	011	2	08	01
6	-do-	BSc Nursing (Post-certificate) Phase-I	025	1	22	02
7	-do-	BSc Nursing (Post-certificate) Phase-II	024	–	24	–
8	-do-	BSc (Hons) Nursing Phase-I	078	–	68	10
9	-do-	BSc (Hons) Nursing Phase-II	069	–	68	01
10	-do-	BSc (Hons) Nursing Phase-III	057	–	56	01
11	-do-	BSc (Hons) Nursing Phase-IV	051	–	51	–
12	July 2014	First Professional MBBS	073	6 (NE)	49	18
13	-do-	BSc (Hons) Ophthalmic Techniques Phase-I	020	–	11	09
14	-do-	BSc (Hons) Ophthalmic Techniques Phase-II	012	–	07	05
15	-do-	BSc (Hons) Ophthalmic Techniques Phase-III	012	–	09	03
16	-do-	BSc (Hons) Medical Technology in Radiography Phase-I	09	1	07	01
17	-do-	BSc (Hons) Medical Technology in Radiography Phase-II	06	–	05	01
18	-do-	BSc (Hons) Medical Technology in Radiography Phase-III	09	–	06	03
19	Aug. 2014	First MBBS Professional (Supplementary)	024	–	15	09
20	Dec. 2014	Final postgraduate/Postdoctoral	135	–	130	05
21	-do-	Final MBBS	077	1	73	03
22	-do-	Second MBBS	078	2 (NE)	73	03
23	-do-	BSc (Post-certificate) Nursing Phase-I (Supplementary)	02	–	02	–
24	-do-	BSc (Hons) Nursing Phase-I (Supplementary)	09	–	07	02

S. No.	Month and year	Examination	Number of Students			
			Appeared	Absent	Passed	Failed
25	-do-	BSc (Hons) Nursing Phase-II (Supplementary)	06	–	05	1
26	-do-	BSc (Hons) Nursing Phase-III (Supplementary)	01	–	01	–
27	-do-	BSc (Hons) Nursing Phase-IV (Supplementary)	10	–	10	–
28	January 2015	Final MBBS (Compartmental examination)	01	–	01	–
29	-do-	BSc (Hons) Ophthalmic Techniques Phase-I (Supplementary)	08	1	05	2
30	-do-	BSc (Hons) Ophthalmic Techniques Phase-II (Supplementary)	07	–	07	–
31	-do-	BSc (Hons) Ophthalmic Techniques Phase-III (Supplementary)	03	–	03	–
32	-do-	BSc (Hons) Medical Technology in Radiography Phase-I (Supplementary)	01	–	01	–
33	-do-	BSc (Hons) Medical Technology in Radiography Phase-II (Supplementary)	03	–	02	1
34	-do-	BSc (Hons) Medical Technology in Radiography Phase-III (Supplementary)	03	–	03	–
		Grand Total	1061	14	956	91

Entrance Examinations for Undergraduate and Postgraduate courses

S.No.	Courses	Date of Examination	No. of candidates	
			Applied	Appeared
1	MD/MS/MDS (AIIMS) July 2014	11.05.2014	21133	016911
2	DM/MCh/MHA July 2014	18.05.2014	02349	1894
3	MBBS (AIIMS) August 2014	01.06.2014	184663	148398
4	Online BSc (Hons) Nursing 2014	06.07.2014	03856	2056
5	Online BSc Nursing (Post-Certificate) 2014	22.06.2014	109	78
6	Online BSc (Hons) Paramedical courses 2014	07.06.2014	01067	644
7	Online MSc courses 2014	20.07.2014	594	290
8	Online MSc Nursing 2014	29.06.2014	01302	873
9	Online MBiotechnology 2014	15.06.2014	649	368
10	Senior Residents Recruitment July 2014	13.07.2014	01734	1228
11	PhD July 2014	13.07.2014	562	246
12	Senior Residents Recruitment January 2015	11.01.2015	755	544
13	MD/MS/MDS (AIIMS) January 2015	09.11.2014	28481	26739
14	DM/MCh/MHA January 2015	30.11.2014	02062	01726
15	AIPGDEE 2015	24.01.2015	10366	9385
16	PhD January 2015	17.01.2015	447	0283
17	Sister Grade II	–	28196	Exam withheld as per direction of Ministry of Health
		Grand Total	288325	211663

Candidates passed in PhD Viva-Voce examination: 42

Examinations for Recruitment:

S. No.	Position	Date		Applied	Appeared	Result declared
		Examination	Interview			
1	Publication Assistant	03.08.2014	19.11.2014	93	65	25.11.14
2	Statistical Assistant	03.08.2014	22.11.2014	170	81	25.11.14
3	Junior Engineer (Civil/Elec./AC&R)	23.08.2014	26-27.11.2014	1471	954	12.12.14
4	MSSO	23.08.2014	29.01.2015	229	142	14.02.15
5	Library Attendant Grade II	14.09.2014	31.01.2015	432	226	14.02.15
6	Junior physiotherapist/ Occupational therapist	20.09.2014	Cancelled	–	–	–
7	Librarian Grade III	20.09.2014	Cancelled	–	–	–
8	Store Keeper (Drug)	20.09.2014	12.03.2015	178	91	Under process
9	Re-examination for Junior physiotherapist	27.12.2014	10.03.2015	2232	965	
10	Re-examination for Librarian Grade III	27.12.2014	12.03.2015	0335	118	
11	Yoga Instructor	21.02.2015	27.03.2015	74	47	
12	Programmer	21.02.2015	27.03.2015	657	249	
13	Dental Technician	21.02.2015	Scheduled 19.05.2015	464	214	
14.	Perfusionist	28.02.2015	Scheduled 21.05.2015	137	47	
			Grand Total	6472	3199	

Entrance Examinations conducted:

1. All India Post Graduate Dental Entrance Exams-2015 for admission to MDS courses against 50% open merit seats quota was held at 34 centres (Local 11, Outstation 23) in six cities of India on 24 January 2015. The result was declared on 6 February 2015.
2. AIIMS PG Entrance Examination for admission to MD/MS/MDS courses was conducted on 11 May 2014 for July 2014 session at 67 centres (Delhi 21, Outstation 46) and 9 November 2014 for January 2015 session at 97 centres (Delhi 22, Outstation 75). The results were declared on 15 May 2014 and 13 November 2014, respectively.
3. Selections for various Post-Doctoral (superspecialty) courses (DM/MCh and MHA) for July 2014 and January 2015 sessions were done on the basis of a two stage performance evaluation during 19–27 May 2014 and 15–21 December 2014, respectively.
4. The section also conducted online test for post of Senior Residents/Senior Demonstrators for July 2014 session on 13 July 2014 and January 2015 session on 11 January 2015.
5. Selections of candidates for registration to PhD programme for July 2014 and January 2015 sessions were made on the basis of two stage performance evaluation during 13–23 July 2014 and 17–27 January 2015, respectively.

6. The Entrance Examination for admission to MBBS course of AIIMS including six new AIIMS-like institutes for August 2014 session was held in 334 (local 68, outstation 266) centres in 18 cities on 1 June 2014.
7. BSc (Hons) Nursing Entrance Examination was held in Delhi and 6 AIIMS (Bhopal, Bhubaneswar, Jodhpur, Patna, Raipur and Rishikesh) on 6 July 2014 in CBT online mode.
8. The Entrance Examination for admission to MSc and MBiotech courses for August 2014 session was held in Delhi on 20 July 2014 and 15 June 2014 in online mode, respectively.
9. The Entrance Examination for admission to MSc Nursing course was introduced from the year 2005. This examination was held on 29 June 2014 in Delhi only in CBT online mode. The admission was made by allotment of seats on merit basis through counseling held on 14 and 21 July 2014.
10. BSc Nursing (Post-certificate) entrance examination was held in Delhi in CBT online mode on 22 June 2014 followed by personal assessment of candidates on 26 June 2014.
11. The Entrance Examination for admission to Paramedical courses, viz. BSc (Hons) in Ophthalmic Techniques and BSc (Hons) Medical Technology in Radiography for August 2014 session was held in Delhi at one centre in CBT online mode on 7 June 2014. The admissions to these two courses were made by allotment of seats on merit basis through counseling held on 2 and 15 July 2014.

Participation in other events

1. The Examination Section participates in the counseling for admission to AIIMS-PG, MBBS, BSc (Hons) Para-Medical, MSc (Nursing) courses and personal assessment for BSc (Nursing) Post-Certificate course.
2. The Examination Section helped evaluate thesis of 83 postgraduate students from B.P. Koirala Institute of Health Sciences, Dharan, Nepal.
3. Examination Section is also providing technical expertise to various Universities and Institutions in India and abroad for conduction of their Entrance Examinations.

Significant Events

The section conducted the MBBS Entrance Examination of North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Shillong, Meghalaya from 2010 to 2012.

To maintain complete confidentiality and integrity of the examination system, question papers for outstation centres are now kept in safe custody of approved banks. In order to avoid any case of impersonation, thumb impressions are obtained during the entrance examination. Physical frisking with the help of metal detector has also been started from the year 2006.

The section has been inviting online applications for all entrance examination since January 2010. Candidates can now apply online and also download their admit cards. This has overcome the difficulty in obtaining prospectus and application forms by the candidates. The section has also introduced integrated mode of payment (Debit Card, Credit Card, online transfer, etc.) for submission of application fee from 2012. The section has also introduced online helpline from 2012 onwards to cater the needs of aspirants as well as students of AIIMS, so that their doubts may be cleared instantly.

In all Entrance Examinations, all candidates get pens to write. This was done to prevent cheating by using electronic gadgets. Photography (snapshot) is being done in case of doubt in genuineness of identity of a candidate during the course of the examination.

The cash carried by AIIMS representative to meet examination expenditure has been minimized by sending 90%–95% amount through Demand Draft/Bankers Cheque in advance to the designated examination centres.

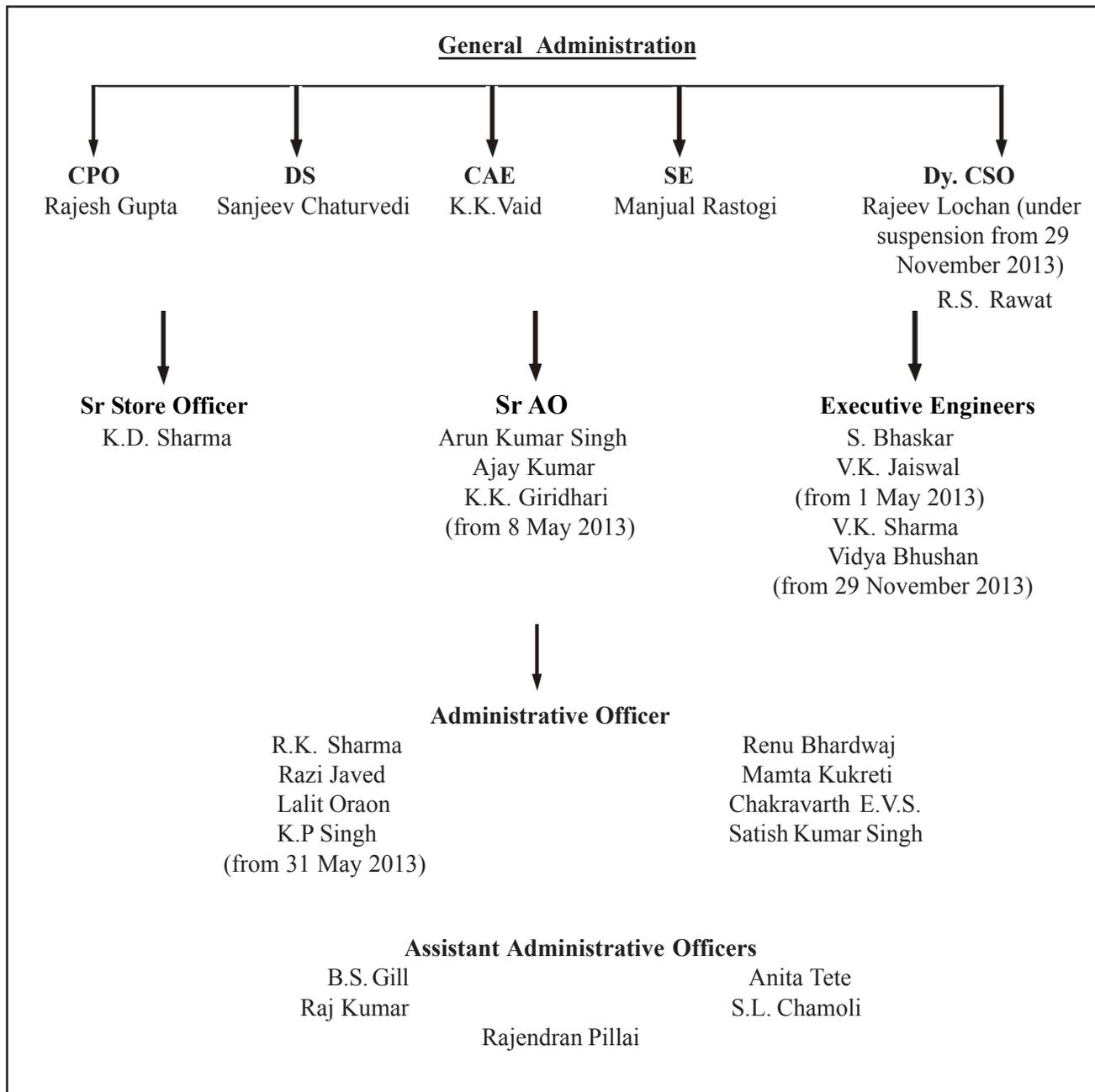
All entrance (except AIIMS MBBS) and recruitment examinations have been converted from offline mode to online mode. Efforts are in progress to conduct the AIIMS MBBS examination also through online mode.

The section has also introduced payment of remuneration by ECS/NEFT in place of cash system facility to faculty members and staff for disbursement of payment. This facility has revamped the disbursement system. Now, within a short span of time all faculty and staff have been getting their dues in their respective bank accounts.

5. General Administration

Deputy Director (Administration)
Shri V. Srinivas

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 controlled and supervised by the Dy. Director (Admn.). There are various branches looking after the above mentioned areas. Each branch is headed by a Senior Officer with supportive officers and staff members. A brief description of the Officers/Staff looking after various branches is given below.



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 of the Institute is 11,673 and includes staff of all Centres/Main Hospital/D.O. The number of group-wise sanctioned strength and staff in-position is mentioned below.

S. No.	Category/Group	Sanctioned Strength	In-position
1.	Faculty	869	642
2.	'A'	562	414
3.	'B'	5531	4657
4.	'C'	4773	4238
	Total	11735	9951

Scheduled Caste/Scheduled Tribe Cell

Liaison Officer

Dr Rajpal

Professor of Ophthalmology, Dr. R.P. Centre

Administrative Officer

Lalit Oraon

During the year 2014-15 various representation from SC/ST Category employees were received in the SC/ST Cell, which are as under:

Total No. of Representations received:	10
Total No. of Cases resolved/disposed off:	7
Total No. of Cases under Consideration:	3

Brief summary of the cases

- Mrs. Kaushal w/o sh. Pradeep Kumar, Asstt. Eng. (Elect.), Regarding Continuous Discrimination and harassment by Dr. Chandralekha, Professor & Head of Department of Anesthesia, AIIMS. The matter is under consideration with the Competent Authority.
- Sh. O. P. Benwal, Sr. Steward, Deptt. of Dietetics Services Dr. R. P. Center, AIIMS received through NCSC Regarding promotion, the matter has been examined by the Competent Authority and a factual report has been sent to the NCSC. **The Matter has been disposed off.**
- Sh. Raj Narayan, Convenor, Janhit Abhiyan, B-7, Sarawati Complex, Subhash Chowk, Laxmi Nagar Delhi, regarding Anti-SC/ST Action in AIIMS by Dr M.C. Misra in recent Selection of Sr. Resident (SR) post, held on 30 April 2014 & 1 May 2014. The matter has been examined and a reply has been sent to the Ministry. **The Matter has been disposed off.**
- Shri Pratap Singh Bist, General Secretary, Sambhavana Organization, regarding violation of Section 33 of the persons with disabilities Act, 1995 by various departments. The representation has been forwarded to the concerned section for taking necessary action.
- Sh. Banwari Lal, H. No. 10426, Gali No. 2, Bagichi Allouddin, Paharganj, New Delhi-55, regarding harassment and biased practiced practice against SC Candidates by the AIIMS Authority. The matter is under consideration with the Competent Authority.
- Sh. Avinash B. Dhargava, Chief Physiotherapist, Department of PMR, regarding Harassment of a Senior Dalit Officer in AIIMS, New Delhi was examined, committee constituted for redressal for Grievances of SC ST employees at AIIMS under the Chairmanship of Prof. Y. R. Sharma, Chief, Dr. R. P. C. and as per committee meeting minutes found that no grievance against Dr U. Singh as pointed out by Sh. Avinash B.

Dhargave, Hence, **the matter has been disposed off.**

7. Sh. Rahul, Lab. Technician, C.N.C. Blood Bank, regarding harassment, representation of the Petitioner was not enclosed by the NCSC, a request letter has been sent to the NCSC, However, no response has been received so far. Hence, **the matter has been disposed off.**
8. Joint Representation of Sanitary Attendants, Rajgarhia Vishram Sadan, AIIMS, regarding regularization. Delhi Commission itself directed to close the case since sub-judice. **The matter has been disposed off.**
9. Representation of Sh. Nagender Singh Yadav received through the Court of Chief Commissioner for Persons with Disabilities (CCPWD), regarding in-accessibility for persons with disability in P&O workshop. The matter has been examined and a reply has been sent to the CCPWD. **The matter has been disposed off.**
10. Representation of Sh. Hemraj, O.T. Assistant, Emergency Department, JPNATC against Dr Mahendra, Consultant, JPNATC AIIMS New Delhi, regarding Physical & Mental harassment and use of abusive & caste-catch words. The dispute between Sh. Hemraj and Dr Mahendra has been resolved through their mutual understanding in the presence of Assistant Administrative Officer, JPNATC and Sh. Hemraj has taken back his complaint against Dr Mahendra, Consultant, and Emergency Department JPNATC. **The matter has been disposed off.**

6.0 Main Hospital

Medical Superintendent

D.K. Sharma

I.B. Singh

Professors

Sanjay Arya

Aarti Vij

Nirupam Madaan
Mahesh R

Assistant Professor

Amit Lathwal

Anoop Daga
Angel Rajan Singh (Contract)

Bed complement

Bed category	Main Hospital	Cardiothoracic and Neurosciences Centre
General	827	277
Intensive care	086	063
Observation	069	09
Private ward	165	63
Total beds	1147	412

Hospital performance indices	Main Hospital		CN Centre		Inference
	2014-15	2013-14	2014-15	2013-14	
Average length of stay (days)	4.3	4.4	6.8	6.9	Effective utilization of beds
Average bed occupancy rate (%)	87.9	86.7	84.6	85.8	Fair occupancy
Net death rate (%)	1.7	1.6	2.9	3.3	Low mortality rate despite a large number of critically ill patients admitted
Combined crude infection rate (%)	5.38	6.0	-	-	

Please see Tables I and II for details

6.1 Medical Records Services (Hospital)

Officer In-charge

Nirupam Madaan

Chief Medical Record Officer and Sub-Registrar, Births and Deaths

N.K. Sharma (upto 31 October 2014)

Patty Lyngdoh (Acting, from 1 November 2014)

Education and Training

- 24 MSc Nursing 2nd year students of College of Nursing, AIIMS visited the Medical Record Section (Main Hospital). Shri N.K. Sharma, Chief Medical Record Officer on 4 April 2014, delivered a brief lecture on Medical Record Management at AIIMS.
- 9 students pursuing Medical Record Technology Course from St. Stephens Hospital, New Delhi visited Medical Record Section (Main Hospital), Central Admission/Enquiry Office and RAK Out Patient Department of AIIMS on 22 April 2014.
- 25 BSc Nursing 1st year students of College of Nursing, AIIMS visited the Medical Record Section for their orientation lecture on Medical Records Management delivered by Mr Ashok Kumar, Junior Medical Record Officer on 7 August 2014.
- 23 MSc Nursing 2nd year students from College of Nursing, AIIMS students were given a brief lecture on Medical Records Management as a part of their nursing curriculum by staff of the Medical Records on 21 March 2015.

Court Attendances

A total of 612 summons/notices were received in the Medical Record Section (Main Hospital) from various Courts of Delhi and outside. The concerned doctors or consultants (as per case) and staff from the Medical Record Department were deputed to attend various courts on behalf of AIIMS Hospital.

Issuing of Case Records

7933 medical case records have been issued to resident doctors authorized by the concerned consultants for research, education and other official purposes.

Computerization of Medical Records

Central Admission Office and Hospital Enquiry Section of Main Hospital including Medical Records Section, wards areas of Main Hospital and C.N. Centre have been computerized and connected with the software of NIC. This software generates all deaths and births occurring in the Main Hospital. Outsourcing for retention of inpatient medical records have been initiated to tackle scarcity of space in the Medical Record Section. Digitization of inpatient medical records has been started from the year 2014 for easy retrieval of records.

In-Patient Services

The AIIMS hospital has maintained its tradition of services and quality of patient care, in spite of ever increasing number of patients that visit the hospital from all over the country as well as from abroad. A total number of 117,410 patients were admitted during the financial year in the various clinical units of the Main Hospital and C.N. Centre. The detail of patients according to department, state and gender for admissions, discharges and average length of stay are given in Tables II and III and Figs 1 to 3. The numbers of surgical procedures performed in various surgical disciplines are given in Table IV.

The medical records of indoor patients are systematically classified and categorized for easy retrieval for education, research and other purposes. These records are stored in compactors. The Medical Record Section of Main Hospital also maintains all the inpatient records of C.N. Centre.

Central Admission Office and Hospital Enquiry (CAO & E)

The CAO & E of AIIMS functions round the clock for 365 days a year. All admissions to the inpatient areas of the Main Hospital and C.N. Centre are made through this office. It functions like the heart of the Institute performing important functions like patient registration for initiation of Admission Slip (Face-Sheet) and issuing of attendant passes. In addition, the office also functions as a general enquiry office to providing prompt and accurate information

regarding the patients and Institute. The staff working there is on shift duties and is manned by Receptionists, Junior Medical Record Officer, Medical Record Technicians, etc.

Out Patient Department (OPD) and Specialty Clinics

A total of 1,750,197 patients attended various general OPD and Specialty Clinics of the Main Hospital (AIIMS). The details of the OPD load are given in Table VII.

Table I. Yearly statistical health bulletin

S. No.	Details	Main Hospital		CN Centre	
		2014-15	2013-14	2014-15	2013-14
1.	Total patients admitted	96689	93898	20721	20185
	a. Adults and children	93960	90967	–	–
	b. Newborn infants	02729	2931	–	–
2.	Total patients discharged (including LAMA, absconded, DOR and deaths)	89065	87867	19035	19141
	a. Adults and children	86374	85014	–	–
	b. Newborn infants	2691	2853	–	–
3.	Total days of care	380812	386893	129522	131518
	a. Adults and children	364386	366370	–	–
	b. Newborn infants	16426	20523	–	–
4.	Average length of stay	4.3	4.4	6.8	6.9
	a. Adult and children	4.2	4.3	–	–
	b. Newborn infants	6.1	7.2	–	–
5.	Total patient care days (as per daily census)	345848	341107	129610	128657
	a. Adults and children	343410	338672	–	–
	b. Newborn infants	2438	2435	–	–
6.	Daily average number of patients (as per daily census)	0948	935	355	352
	a. Adults and children	0940	928	–	–
	b. Newborn infants	07	7	–	–
7.	Average bed occupancy (%)	087.9	86.7	84.6	85.8
	a. Adults and children	088.9	87.7	–	–
	b. Newborn infants	033.4	33.4	–	–
8.	Births in hospital	2568	2685	–	–
	a. Male	1377	1419	–	–
	b. Female	1191	1266	–	–
9.	Total deaths (including newborns)	2723	2474	842	920
	a. Deaths within 48 hours	1203	1095	293	302
	b. Deaths after 48 hours	1520	1379	549	618
	c. Gross death rate (%)	3.1	2.8	4.4	4.8
	d. Net death rate (%)	01.75	1.6	2.9	3.3
10.	Total attendance in casualty	143034	134096	–	–
	a. Deaths in casualty	2072	2120	–	–
	b. Brought dead to casualty	0969	1019	–	–

Table II. Department-wise admissions (Main Hospital and CN Centre)

Department	Admission	Discharges (including LAMA, absconded, DOR, Deaths)	Total days of care	Average length of stay
Medicine I	1714	1562	13481	8.6
Medicine II	942	860	8603	10.0
Medicine III	2010	1908	9661	5.1
Surgery I	1556	1434	9696	6.8
Surgery II	1889	1691	9400	5.6
Surgery III	1489	1411	9188	6.5
Surgery IV	2634	2340	10448	4.5
Orthopedics I	2930	2640	13961	5.3
Orthopedics II	3081	2650	14740	5.6
Obstetrics and Gynaecology I	4220	3919	16924	4.3
Obstetrics and Gynaecology II	5043	4715	17098	3.6
Obstetrics and Gynaecology III	4048	3791	15642	4.1
Nephrology	7970	7184	20555	2.9
Endocrine	610	603	8485	14.1
Gastroenterology	3293	2925	18336	6.3
Geriatric Medicine	962	875	7608	8.7
Haematology	9317	8864	24837	2.8
Psychiatry	296	216	7831	36.3
Urology	6321	5864	18103	3.1
Otorhinolaryngology I	1758	1611	5579	3.5
Otorhinolaryngology II	1287	1255	5457	4.3
Otorhinolaryngology III	1321	1212	4490	3.7
Dermatology	4378	3891	11948	3.1
Newborns	2568	2589	14653	5.7
Neonatal Intensive Care Unit	174	112	827	7.4
Paediatrics I	3270	2973	10337	3.5
Paediatrics II	1800	1736	8527	4.9
Paediatrics III	10438	9540	15951	1.7
Paediatric Surgery	2945	2714	16661	6.1
Pulmonary Medicine and Sleep Disorders	2211	1929	9320	4.8
Radiotherapy	31	45	138	3.1
Centre for Dental Education and Research	1185	1157	2639	2.3
Nuclear Medicine	554	596	1439	2.4
Gastrointestinal Surgery and Liver	1047	958	12191	12.7

Department	Admission	Discharges (including LAMA, absconded, DOR, Deaths)	Total days of care	Average length of stay
Transplantation				
Physical Medicine and Rehabilitation	31	34	1456	4.3
Oncology (Main)	921	872	4174	4.8
Pain Clinic (Anaesthesiology)	445	389	428	1.1
Total (Main)	96689	89065	380812	4.3
Cardiology	8541	7944	28532	3.6
Cardiothoracic and Vascular Surgery	3498	3325	33830	10.2
Neurology I	1628	1438	9389	6.5
Neurology II	1150	1101	8432	7.7
Neurology III	1501	1380	9520	6.9
Neurosurgery I	2545	2106	22233	10.6
Neurosurgery II	1856	1741	17586	10.1
Neuroanaesthesiology	2	–	–	–
Total (CN Centre)	20721	19035	129522	6.8

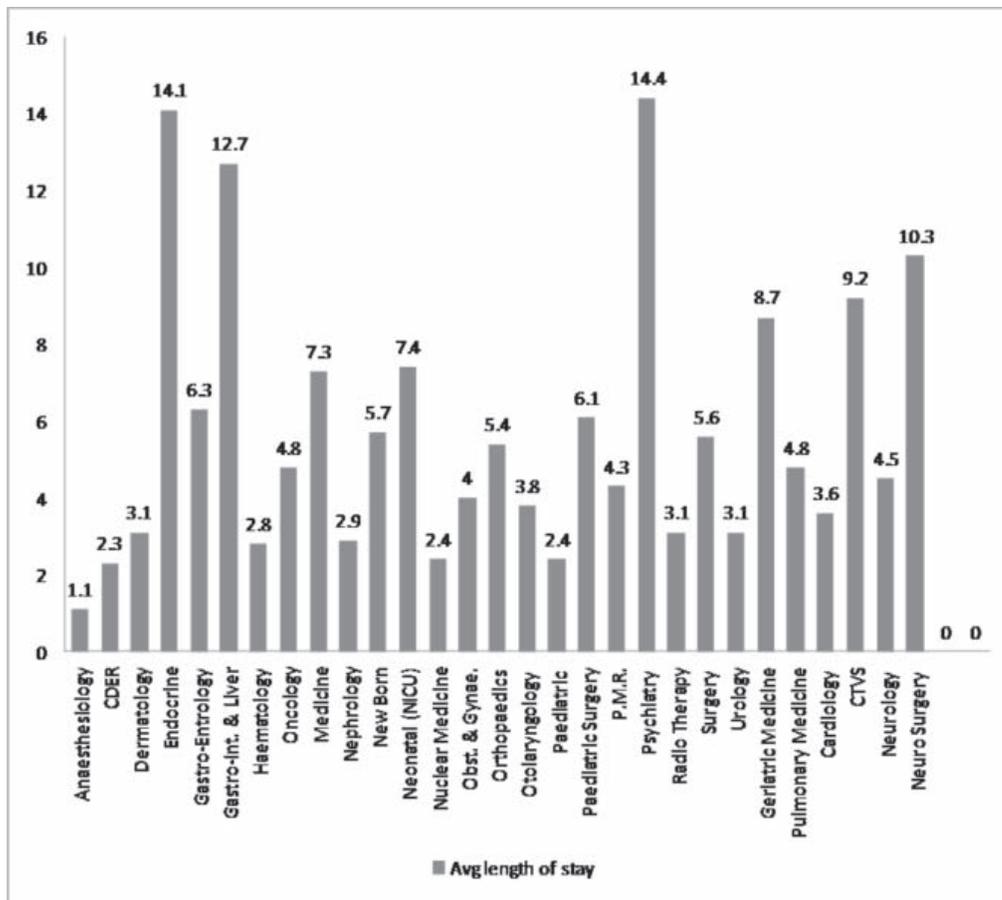


Fig. 1. Department-wise average length of stay

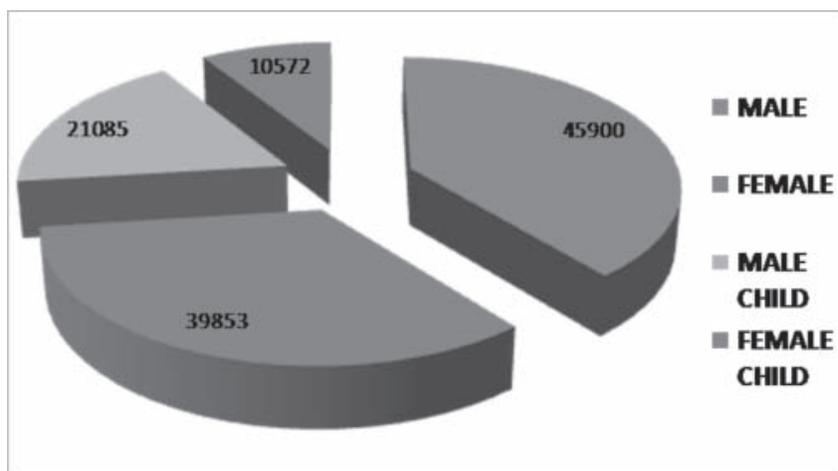


Fig. 2. Gender-wise inpatients (Main Hospital and CN Centre)

Table III. Department-wise deaths (Main Hospital and CN Centre)

Department	Total	Under 48 hours	Over 48 hours	Gross death rate (%)	Net death rate (%)
Medicine I	371	183	188	23.8	13.6
Medicine II	248	129	119	28.8	16.3
Medicine III	239	116	123	12.5	6.9
Surgery I	50	21	29	3.5	2.1
Surgery II	38	14	24	2.2	1.4
Surgery III	15	8	7	1.1	0.5
Surgery IV	27	6	21	1.2	0.9
Orthopedics I	10	–	10	0.4	0.4
Orthopaedics II	3	–	3	0.1	0.1
Obst. & Gynae.I	10	3	7	0.3	0.2
Obst. & Gynae.II	4	2	2	0.1	–
Obst. & Gynae.III	–	–	–	–	–
Nephrology	126	46	80	1.8	1.1
Endocrine	8	3	5	1.3	0.8
Gastroenterology	403	211	192	13.8	7.1
Geriatric Medicine	50	13	37	5.7	4.3
Hematology	280	101	179	3.2	2.0
Psychiatry	–	–	–	–	–
Urology 15	5	10	0.3	0.2	
Otolaryngology I	8	3	5	0.5	0.3
Otolaryngology II	7	4	3	0.6	0.2
Otolaryngology III	4	1	3	0.3	0.2
Dermatology	4	1	3	0.1	0.1
Newborn	25	20	5	1.0	0.2
Neonatal Intensive Care Unit	24	2	22	21.4	20.0

Department	Total	Under 48 hours	Over 48 hours	Gross death rate (%)	Net death rate (%)
Paediatrics I	57	27	30	1.9	1.0
Paediatrics II	89	34	55	5.1	3.2
Paediatrics III	97	36	61	1.0	0.6
Paediatric Surgery	69	19	50	2.5	1.9
Pulmonary Medicine and Sleep Disorders	165	59	106	8.6	5.7
Radiotherapy	6	4	2	13.3	4.9
Centre for Dental Education and Research	–	–	–	–	–
Nuclear Medicine	–	–	–	–	–
Gastrointestinal Surgery and Liver Transplantation	86	17	69	9.0	7.3
Physical Medicine and Rehabilitation	–	–	–	–	–
Oncology (Main)	185	115	70	21.2	9.2
Pain Clinic	–	–	–	–	–
Total (Main)	2723	1203	1520	3.1	1.7
Cardiology	217	127	90	2.7	1.2
C.T.V.S. 233	50	183	7.0	5.6	
Neurology I	76	21	55	5.3	3.9
Neurology II	61	18	43	5.5	4.0
Neurology III	52	8	44	3.8	3.2
Neurosurgery I	123	39	84	5.8	4.1
Neurosurgery II	80	30	50	4.6	2.9
Neuroanaesthesiology	–	–	–	–	–
Total (CN Centre)	842	293	549	4.4	2.9

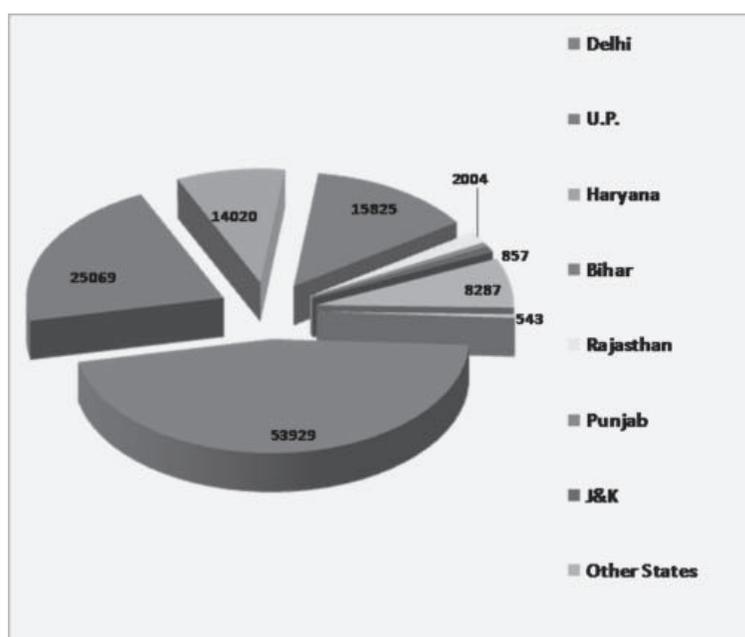


Fig. 3. Geographical distribution of inpatients (Main Hospital and CN Centre)

Table IV. Surgical procedures (Main Hospital and CN Centre)

Department	Major	Minor		Total
		Inpatient	Outpatient	
Surgery I	726	390	2635	3751
Surgery II	1061	302	2557	3920
Surgery III	734	374	2666	3774
Surgery IV	1180	662	2972	4814
Gastrointestinal Surgery and Liver Transplantation	607	–	–	607
Urology	1591	444	12079	14114
Obstetrics	1147	123	–	1270
In vitro fertilization	–	1610	–	1610
Gynaecology	2209	1494	911	4614
Foetal Medicine	–	764	–	764
Otolaryngology (ENT)	2391	1624	23015	27030
Orthopaedics I	1872	727	–	2599
Orthopaedics II	1408	1242	–	2650
Paediatric Surgery	2130	2	–	2132
Dental Surgery	101	2	–	103
Casualty	–	130	–	130
Total (Main)	17157	9890	46835	73882
CTVS	4090	–	–	4090
Neurosurgery I	1657	237	–	1894
Neurosurgery II	1482	170	–	1652
Total (CN Centre)	7229	407	–	7636

Table V. Attendance in OPDs and Specialty Clinics

Medical Disciplines	New Cases	Old Cases	Total
Medicine			
1. General OPD	74375	72933	147308
2. Specialty Clinics			
a) Chest	–	–	–
b) Rheumatology Clinic	71	5149	5220
Geriatric Medicine	11304	16892	28196
Pulmonary Medicine and Sleep Disorders	9062	20575	29637
Nuclear Medicine	2362	7948	10310
Endocrinology	12722	27233	39955

Nephrology			
1. General OPD	8792	28517	37309
2. Specialty Clinics			
a) Transplant Clinic	125	8806	8931
b) RTCC	445	997	1442
Haematology	3252	18251	21503
Gastroenterology	21428	31268	52696
Paediatrics			
1. General OPD	38703	58632	97335
2. Specialty Clinics			
a) Well Baby	644	21	665
b) Follow up TB	297	2139	2436
c) Renal clinic	589	4751	5340
d) Paediatric Neurology	844	2044	2888
e) Paediatric Chest Clinic	455	4148	4603
f) High Risk Neonatal	244	1704	1948
g) Genetic and Birth Defects Clinic	2984	1396	4380
i) Oncology Clinic	290	2094	2384
j) Child Development Clinic	558	703	1261
k) Endocrinology Clinic	461	1351	1812
l) Neurocysticercosis Clinic	228	1363	1591
m) PCSC	104	1128	1232
n) Rheumatology Clinic	254	2103	2357
o) Myopathy Clinic	384	1127	1511
Dermatology			
1. General OPD	35836	38784	74620
2. Specialty Clinics			
a) STD (Dermatology Surgery)	1088	1519	2607
b) Allergy Clinic	635	1557	2192
c) Leprosy	370	2507	2877
d) Pigmentation	667	1767	2434
e) Psycho-Sexual	–	–	–
f) Dermo-Surgery	711	1488	2199
Psychiatry			
1. General OPD	17713	38043	55756
2. Specialty Clinics			
a) Walk-in-clinic	2525	32941	35466
b) Child Guidance	491	509	1000

Surgical Disciplines	New Cases	Old Cases	Total
Surgery			
1. General OPD	42477	34309	76786
2. Specialty Clinics			
a) Plastic Surgery	–	–	–
Urology	16874	36824	53698
Gastrointestinal Surgery and Liver Transplantation	2323	7622	9945
Paediatric Surgery			
1. General OPD	6803	13976	20779
2. Specialty Clinic			
a) Hydrocephalus	25	148	173
b) Intersex Clinic	7	–	7
c) Paediatric Urology	380	3074	3454
d) Craniosynostosis	–	–	–
Anaesthesia			
a) Pain Clinic	974	1938	2912
b) Pre-Anesthesia Clinic	7229	321	7550
Orthopaedics			
1. General OPD	48042	64403	112445
2. Specialty Clinics			
a) Physiotherapy	19272	45856	65128
b) Occupational therapy	1592	8421	10013
c) Hydrotherapy	1263	7642	8905
d) Follow up Clinic	–	10073	10073
e) Tuberculosis	148	631	779
f) Polio	–	–	–
g) Scoliosis	505	1733	2238
h) Hand Clinic	1366	1748	3114
i) CTEV	220	2742	2962
j) Arthritis	–	–	–
k) Sports Clinics	113	94	207
Otorhino-laryngology (ENT) including RUAS			
1. General OPD	31154	37046	68201
2. Speciality Clinics			
a) Audiology	78	46	124
b) Speech	1012	1069	2081
c) Hearing	779	1371	2150

d) Voice	596	922	1518
e) Vertigo	83	69	152
f) Rhinology	74	38	112
Obstetrics and Gynecology			
1. General OPD	37342	68483	105825
2. Specialty Clinics			
a) Post Natal	–	–	–
b) Infertility	–	–	–
c) IVF	871	2737	3608
d) Family Welfare	5159	3392	8551
e) Antenatal	844	4356	5200
f) Endo-Gynaecology	41	59	100
g) High Risk Pregnancy	2563	13473	16036
h) Postoperative (Gynae)	–	–	–
i) Menopause Clinic	–	–	–
Radiotherapy	275	2121	2396
Physical Medicine and Rehabilitation	34257	82695	116952
Others			
1.Casualty	116360	26674	153034
2.EHS 109130	72753	181883	
3.Nutrition	7706	–	7706
Grand Total	748950	1001247	1750197

6.2 Department of Dietetics

Chief Dietician
Alka Mohan Chutani

No. of indoor patients served different diets (Main Hospital and Centres)

S. No.	Type of Diet	Number
1.	Normal	376773
2.	Private ward	90899
3.	Semisolid	57057
4.	Therapeutic	161470
5.	Enteral feeds	38839
	Total	725038

Nutrition Counseling (OPD) excluding Endocrinology, Paediatric ward and centres

Sex	OPD patients	Indoor	Total
Male	4189	3085	7274
Female	3517	3377	6894
Total	7706	6462	14168

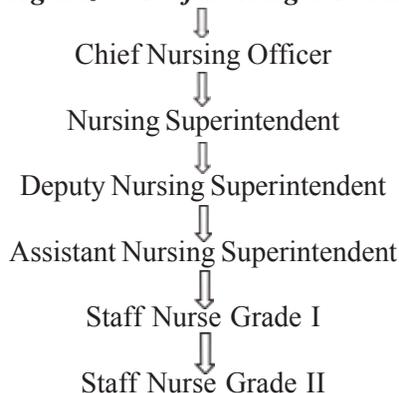
6.3 Nursing Services

Chief Nursing Officer

Ms Tarawati (upto 8 June 2014)

Ms. Sarita Mehta (from 9 June 2014)

Organization of nursing services



An overview

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

Staff strength

The main nursing 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 at AIIMS.

Staff strength in Main Hospital/Centres	
Chief Nursing Officer	1
Nursing Superintendent	4
Deputy Nursing Superintendent (DNS)	36
Assistant Nursing Superintendent (ANS)	172
Sister Grade I	888
Sister Grade II	2914
Total	4015

Orientation/Briefing session

An induction and orientation programme was conducted by the nursing in-service education (NIE) team, infection control nurses (ICN) team along with the CMET for new Grade-II staff nurses to give an overview of the policies and functioning of the hospital in general and of nursing service department in particular.

From 26 May to 13 August 2014 newly recruited nurses underwent induction and orientation regarding various aspects, viz. hospital layout, various departments, OPD schedules, ward management, communication, stress management, infection control practices, biomedical waste management, their professional duties and responsibilities.

Experts from nursing service along with nursing educators also conducted orientation/briefing sessions for visitors from various educational institutions across India.

Continuing nursing education

Nursing staff education is done throughout the year by in-service and continuing education programmes to update the clinical knowledge of practicing nurses thereby aiming at improving the standard of nursing care at AIIMS.

Infection control activities

Half day training programs on ‘Hospital infection control and prevention’ for nursing personnel is conducted once in a month. Ten programmes were conducted and 313 nurses received training.

On 20 January 2015, the infection control core group along with infection control nurses, faculty of emergency services and a team from the National Centre for Disease Control conducted demonstration-cum-lecture on the use of personal protective equipments (PPE) and management of Congo Haemorrhagic Fever outbreak.

Nursing in-service education programme

An in-service education programme has been started from 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 bedside nurses (Sister Grade II and Sister Grade I UG), whereas one class in a week is for senior nurses (Sister in-charges and above).

Facilitator: Ms Tarawati (upto 8 June 2014), Ms Sarita Mehta (from 9 June 2014)

Mentor: Ms Ansamma Neelakantan, DNS (upto November 2014),
Ms Suman R. Kashyap, DNS (from December 2014)

Educator: Ms Rebecca J. Herald, Sister Grade I (HR)
Ms Jessy Shaji Paul, Sister Grade I
Ms Poonam Anand, Sister Grade I

Infection control nurses:

Ms Elpreda M. Victor, Sister Grade I (HR)

Ms Usha Robinson, Sister Grade I (HR)

Ms M.R. Evangelin Vasanth, Sister Grade I

Ms Srinithya Raghavan, Sister Grade I

Since January 2014, a monthly workshop on ‘National Program for Health Care of the Elderly (NPHCE)’, has been conducted with the help of Department of Geriatrics for nurses from main hospital. A total of 14 workshops have been organized. Nursing educators are also facilitating sessions in the workshop. Teaching modules volume I and II (compilation of classes held in previous years) have been released in the month of November. A workshop by Hospital in-service education unit was held in March 2015 for Nursing Administrators.

Hospital infection control nurses conduct a half-day workshop every month for nurses to sensitize them in infection control practices and the need of biomedical waste management.

During the year, 3306 nurses from different departments in the main hospital attended the weekly ‘in-service education’ classes. A total of 144 lectures on the following topics were delivered during the year.

Conflict management	Store indent online	Stress management
Concept of ICU nursing	Nursing informatics	Filling of ACR proforma
Safe medication administration	Wound management	Classes for bedside nurses
Admission, discharge and transfer	Documentation and reporting	Inventory management

Nursing responsibility towards enteral and parenteral feeding

The nursing personnel who attended the in-service education classes were as follows:

CNO/NS: 01

DNS: 31

ANS: 248

Sister Grade I: 980

Sister Grade II: 2046

Higher studies in Nursing

Nursing services at AIIMS focus on improving nursing care by facilitating abundant opportunities for higher studies. After 5 years of regular services, nurses are eligible to pursue higher studies with full pay. Fourteen nurses were pursuing Post-basic BSc Nursing program and 4 completed MSc Nursing during this year.

A total of 1498 nursing personnel attended workshops/conferences during the year excluding consultancy and participation as experts.

Nurses from different departments participated and performed as facilitators for skill stations and hands-on-training sessions in various workshops, CMEs and National conferences conducted last year. Nursing educators at AIIMS conducted orientation for groups from different educational institutions across India as listed below:

1. Hinduja College of Nursing, Andheri (East) Mumbai, 7 January 2014 (20 MSc Nursing final year students and lecturers)
2. Smt. Nagarathamma, School of Nursing, Bangalore, 16 January 2014 (25 BSc Nursing final year students and lecturers)
3. College of Nursing, Bharati Vidyapeeth University, Dhankawadi, Pune, 27 January 2014 (58 BSc Nursing final year students and lecturers)
4. Jaslok Hospital, Jaslok College of Nursing, Dr G. Deshmukh Marg, Mumbai, 30 January 2014 (25 BSc Nursing final year students and lecturers)
5. College of Nursing, Sir J.J. Group of Hospital, Mumbai, 4 February 2014 (41 BSc Nursing final year students and lecturers)
6. Saveetha College of Nursing, Saveetha Nagar, Thandalam, Chennai, 6 February 2014 (37 MSc and BSc Nursing final year students and lecturers)
7. Pragyan College of Nursing, PO Gandhi Nagar, Bhopal, 11 February 2014 (11 MSc Nursing final year students and lecturers)
8. MGM Mother Teresa College of Nursing, N-6 CIDCO, Aurangabad, 25 February 2014 (16 BSc Nursing final year students and lecturers)
9. Anand College of Nursing for Women, Jethuwal, Amritsar, 21 June 2014 (24 BSc Nursing final year students and lecturers)
10. College of Nursing, Christian Medical College, Ida Scudder Road, Vellore, 9 September 2014 (28 MSc Nursing final year students and lecturers)
11. Holy Spirit Institute of Nursing Education, Andheri (E), Mumbai, 5 February 2015 (27 BSc Nursing final year students and lecturers)
12. Jaslok College of Nursing, Dr G. Deshmukh Marg, Mumbai, 10 February 2015 (27 4th year BSc Nursing students and lecturers)
13. Sinhgad College of Nursing, S. No. 49/1 Off Westerly Bypass Road, Pune, 10 March 2015 (35 Post-basic and BSc Nursing final year students and lecturers)
14. SDPS College of Nursing, Khandwa Road, Indore, 12 March 2015 (37 BSc Nursing final year students and lecturers)
15. College of Nursing, St. Martha's Hospital, Nrupathunga Road, Bangalore, 17 March 2015 (25 BSc Nursing final year students and lecturers)
16. Sasoon General Hospital, Jay Prakash Narayan Road, Pune, 21–25 March 2015 (2 Nursing Superintendents and 6 Nursing personnel)
17. RDO College of Nursing, Lamdeng, Imphal West, Manipur, 30 March 2015 (30 General Nursing Midwifery BSc Nursing final year students and lecturers)

An orientation programme was organized for 474 visitors from various hospitals.

6.4 Welfare Unit

Welfare Officer
Mrs Preeti Ahluwalia

PATIENTS' WELFARE

Patient care: Rs 39,97,300 (approximately) raised as donation

Purpose	Donation (Rs.)	Donor
For treatment and surgery of poor and needy patients who are undergoing treatment in the Main Hospital and Centres	3,23,500	Jawahar Bhawan Trust
	89,700	Sahu Jain Trust
	50,900	Baij Nath Bhandari Public Charitable Trust
	10,720	Sewa Prakalp Mahila Mandal Trust
	82,755	Other Donors
AIIMS Poor Fund Account	1,00,000	Mrs Pramada Bbajaj
	1,50,000/-	Mrs Dwarka Prasad Trust
	30,000/-	Mrs Amrit Sharma
	12,000/-	Mrs Anjana Ahluwalia
	10,000/-	Mrs Diljeet Kaur Varma
	5,000/-	Mrs Shakuntala Bhatia
3,000/-	Mr Yogendra Pal Singh	
Anti-cancer drugs provided free to cancer patients	28,65,372/-	Gopal Foundation
	2,64,442/-	Dr Chetan Memorial Divine Trust

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

Dharamshalas

As a welfare activity through the aegis of the AIIMS Hospital Social Welfare Society, the Rajgarhia Vishram Sadan, Sureka Vishram Sadan and Shri Sai Vishram Sadan provided shelter to over 14,700 patients and their attendants who were undergoing treatment at AIIMS and its centres. A pick up and drop facility from the Sadans to the hospital is also being run by AIIMS for the benefit of patients and their attendants.

A play room facility has been provided in Rajgarhia Vishram Sadan for children staying in the Vishram Sadans. This facility is being run on Monday, Wednesday and Friday from 2.30 to 4.00 p.m. by Cancer Patient Aid Association (CPAA). In addition, CPAA has organized a Yoga class once a week for the benefit of the inmates. It also celebrates Diwali and Holi with the inmates.

Rain Basera

A *Rain Basera* facility for 270 people was set up in November 2012 near Sureka Vishram Sadan under the overall management of Delhi Urban Shelter Improvement Board. The facility provides shelter to poor and needy outstation patients and their attendants, who are undergoing treatment at AIIMS. A temporary *Rain Basera* facility for 100 persons was also set up by the Sashastra Seema Bal from 5 January 2015 to 20 March 2015. This facility provided shelter from the severe cold to poor and needy outstation patients and their attendants who were visiting AIIMS for medical treatment.

EMPLOYEES' WELFARE

Appointment on Compassionate grounds

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

Committee for Addressing Complaints of Sexual Harassment

The formation of the committee to deal with complaints regarding sexual harassment of women at AIIMS which had been initiated in 1999, has since then provided an effective complaint redressal mechanism for women staff working at AIIMS. The Committee enquires into complaints received. The meetings are also attended by a member of NGO recommended by Delhi Commission of Women. The inquiry reports along with recommendations have been forwarded to the competent authority for necessary action. This is to ensure a safe, secure and healthy environment for women by prohibiting harassment at work place.

Women Grievance Cell

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

1. Female students.
2. Women employees who are working on a regular, temporary, adhoc, project, temporary status, daily wages, contract or other than outsourced.

The cell deals with grievances received in its terms of reference.

Self Defense Training Program

The Sub Task Force for Development of Gender Sensitisation/Awareness Modules at AIIMS organized the second batch of Training in Self Defence for the benefit of girl students, resident doctors and women employees of AIIMS. 72 female employees/students participated. A 5-day training was conducted by the Special Police Unit for Women and Children (Delhi Police), Nanak Pura, 21–25 April 2014. No fee was charged for this.

Counseling Services

These 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.

Diwali celebration

The Employees Welfare Committee celebrated Diwali with children of AIIMS employees who are studying in the Nursery and Primary school being run by Medical Institute Residents Welfare Association (MIRWA). On this occasion Professor M.C. Misra, Director, AIIMS and Dr D.K. Sharma, Medical Superintendent, AIIMS distributed sweaters, gifts and sweets to the children. (Courtesy Donors: Mrs and Mr Sunil Bhutani).



Seen in the picture: Professor M.C. Misra, Director and Dr D.K. Sharma Medical Superintendent distributed sweaters, gifts and sweets to the children studying in the Nursery and Primary School run by Medical Institute Resident Welfare Association (MIRWA), Community Hall, AIIMS.

6.5 Medical Social Welfare Unit

Chief Medical Social Service Officer, and Nodal Officer Renal Authorization Committee
B.R. Shekhar

Supervising Medical Social Service Officer
Pankaj Kumar

The first Medical Social Worker was appointed in the main hospital in 1960 and the Unit is working under the supervision of Medical Superintendent since then. The integration of Medical Social Services has yielded results as it provided a social and psychological support for the patients and alleviated their distress while receiving the treatment. The Main Hospital unit has 11 Medical Social Service Officers (MSSOs) taking care of OPDs and Wards of 16 important departments in the main hospital. In addition to a team of MSSOs there are 19 part-time social guides (PTSOG) 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, patient, family and community.
2. To facilitate holistic healing leading towards a complete physical, psychological, social and vocational rehabilitation.
3. To ensure protection of the human rights of patients.
4. To facilitate the various services for poor and indigent patients.
5. To coordinate with the Hospital Administration and treating faculties to facilitate patient welfare services.
6. To impart training and orientation of Medical Social Work to the Social Work Students.
7. To conduct and coordinate research studies initiated by our unit and other departments of AIIMS.

HIGHLIGHTS

1. Free medicines worth Rs 107,390 for 10000 OPD patients through voluntary donation
2. Free medicines/surgical items to 900 admitted patients from AIIMS
3. Financial assistance of Rs 19,41,83,831 through Rashtriya Arogya Nidhi (RAN), Ministry of Health and Family Welfare to 442 patients
4. Arranged Rs 29,65,500 through NGO, Trust and voluntary donors for poor and indigent patients
5. Exemptions of different hospital levy charges including CT, MRI, PET and HLA, etc. for 12,000 BPL/poor patients
6. Helped poor patients for Rs 48,420 through AIIMS poor fund
7. Counseled and guided approximately 30,000 patients
8. 16 cases of unrelated kidney donors were scrutinized, assessed, documented and presented before the Renal Transplant Authorization Committee as per THOA, 1994.
9. Rehabilitated 162 patients: Medico-Legal Cases (MLC) and Non-MLC Unknown/ Unattended/Destitute Orphan
10. Shifted 6970 patients to Safdarjang Hospital and other government hospitals for admission through casualty MSSO due to non-availability of beds
11. Referred 25 patients to private hospitals for free treatment under EWS category as per the Honourable High Court Order.

12. Railway Concession facility provided to 8500 outstation patients
13. NMLC to MLC conversion (94) and patient data correction (30) in casualty
14. Imparted Social Work training to 15 students of Social Work who came from different colleges across the country.
15. Conducted 2nd Annual National Seminar on 'Medical Social Work practices in Hospital setting: Creative interventions and future avenues' on 20 March 2015 attended by more than 200 participants from across the country.
16. One day training programme on Research Methodology was organized by the unit through Department of Biostatistics on 26 August 2014 for 14 MSSO.
17. Displayed Medical Social Welfare Unit posters at the Institute Day Exhibition.



Diwali Celebration and Magic show in AB-5 ward on 21 October 2014: The Medical Social Welfare Unit organized a Magic Show and Diwali Celebration in the presence of the Director, Dean, Medical Superintendent and Head, Department of Paediatric Surgery.

EDUCATION

Teaching activities



1. Induction training for newly joined nurses: 20 sessions on the topic 'How you can help poor patients through MSSO' organized by CMET were conducted by Mr B.R. Shekhar, Chief MSSO and Mr Vivek Kumar Singh, MSSO Gr. II.
2. Regular sessions were conducted by Mr B.R. Shekhar, Chief MSSO for MHA Students (Hospital Administration) at Medical Social Welfare Unit, Main Hospital on Role of MSSO in Hospital Setting.

3. Sessions for MHA students were conducted by Mr Vivek Kumar Singh, MSSO on 'Introduction of Corporate Social Responsibility' (2 April 2014) and 'Corporate Social Responsibility: Scenario in Health Care' (3 April 2014)

Training activities



1. Social Work Training: 15 students of social work from different schools and colleges were given training in Medical Social Work in hospital setting.
2. Social Work Orientation Session: Mr B.R. Shekhar, Chief MSSO and Mr Vivek Kumar Singh, MSSO gave 4 orientation sessions on 'Medical Social Services in hospital setting' to Social Work Student groups along with their faculty members.

CMEs/Workshops/Symposia/National and International Conferences Seminar conducted

2nd Annual National Seminar on 'Medical Social Work practices in Hospital setting: Creative interventions & future avenues', 20 March 2015, Conference Hall, AIIMS, New Delhi



Inauguration of the Seminar and release of souvenir

Seminar/Workshop/Conference attended

1. Mr B.R. Shekhar, Chief MSSO, Indian Social Work Congress, 19–21 December, 2014, Pune, India
2. Mr Pankaj Kumar, Supervising MSSO, , Indian Social Work Congress, 19–21 December, 2014, Pune, India
3. Mr Vivek Kumar Singh, MSSO Gr.II, Non-violent Communication, 7–16 October 2014, Ruppolding, Germany

PATIENT CARE SERVICES

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 psycho-social and economic assessment
2. Facilitating free medicines and surgical items: Consultations are received from various wards for socioeconomic review of patients to assist get free medicines/ surgical items. Similarly poor/indigent patients getting follow up in OPDs get help from the MSSO for free medicines/ surgical items.
3. 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 socioeconomic assessment of the patients.
4. 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.
5. Facilitation of Financial Assistance through Nation Illness Assistance Fund (NIAF): NIAF or 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 NIAF cases are counselled and documented by Mr Pankaj Kumar, Supervising MSSO and he represents these cases in the AIIMS NIAF Subcommittee with Mr B.R. Shekhar, Chief MSSO.
6. Coordination of Renal Authorization Committee and assessment of unrelated Kidney Donors: The cases of Unrelated Kidney Donors are referred to Mr B.R. Shekhar, Chief MSSO/Nodal Officer for the renal authorization and the Chief MSSO and Mr Anil G. Mali, MSSO do the counselling, coordination and documentation to present cases in the Renal Authorization Committee (RAC) as per The Transplantation of Human Organs Act (TOHA), 1994 as amended in 2011.
7. Counselling services: The unit is the first contact point of patients at AIIMS. The patients and their attendants not only receive basic information but the MSSO gives psycho-social counselling and guidance to them throughout their stay in the hospital.
8. 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 unknown, unattended, destitute, orphan patients through government/NGOs.
9. 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.
10. Providing Railway concession facility: The unit provides railway concession to patients suffering from cancer, aplastic anaemia, TB, leprosy, thalassaemia, kidney transplant, dialysis, and deaf and mute patients. This facility results in very good follow-up and compliance from patients.
11. Providing accommodation facilities to outstation patients and their attendants.
12. Research and Training: Imparting training to NSS, BSW, MSW students from different colleges across India and conduct and coordinate research studies.
13. 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)
14. Planning and administration
 - Coordination with 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

15. Fund-raising and networking: Coordinating and networking with various NGOs and donors for patient welfare
16. Emergency care in casualty
 - Providing all Medical Social Services round-the-clock including shifting and rehabilitation of patients, creating a smooth workflow in the casualty
 - Special services during epidemics, disasters and natural calamities for managing the patient care efficiently

6.6 Main Blood Bank

Head

D.K. Sharma

Additional Professor and Faculty In-charge

Kabita Chatterjee

Chief Medical Officer

Poonam Coshic

Senior Technical Officer

Mrs Rajni Agnihotri R.M. Thapliyal

MAJOR ACTIVITIES

1. Started rural blood donation camp with the aim of 'blood security for all' at rural level (through CRHSP, Ballabgarh, AIIMS)
2. Installed chemiluminescence technique to screen for HIV, hepatitis B and hepatitis C for apheresis donors.
3. Upgraded ID NAT from first generation to second generation to reduce the window period of HIV, hepatitis B and hepatitis C.
4. Started testing NAT for all the collected blood units of blood banks of C.N. Centre and JPNA Traume Centre
5. Log 4 leucoreduction to reduce febrile non-haemolytic transfusion reactions (FNHTR) and other complications due to leucocytes in multi-transfused patients.
6. Started doing autologous (small volume) platelet collection for orthopaedic patients.
7. Improved donor refreshment facilities.
8. Integration of departmental software with the HIS.

PATIENT CARE SERVICES

Total number of blood units collected 44,103

Total number of blood and blood component units issued 1,22,309

S.No.	Components	Issued	
1.	Packed red cells (PRBC)	43,303	
2.	Platelet concentrate (RDPs)	40,456	
3.	Fresh frozen plasma (FFP)	30,309	
4.	Cryoprecipitate	600	
5.	Leukodepleted RBCs	18000	
6.	Leukodepleted platelets	30100	
7.	Buffy coat pooled platelet concentrate	1000	
8.	Specially processed blood components for neonates	600	
9.	Intra uterine exchange units	145	
10.	Irradiation	RBC	14,000
		Platelets	40,456
11.	Single donor platelet apheresis	1280	

12.	Therapeutic exchange	50
13.	Peripheral blood stem cell collection	26
14.	Therapeutic phlebotomy	40
15.	Autologous platelet (PRP) for orthopaedic patients	49
16.	Autologous blood collection	NIL

Other services include:

1. Biometric registration of donor along with identity proof.
2. Individual care of the donor before, during and after whole blood and apheresis donation
3. Pre- and post-donation counselling and appropriate medical assistance to sero-reactive donors.
4. Donor reaction management.
5. Bar coding of all samples and blood components to reduce clerical errors to minimum.
6. Fully automated
 - a. Blood component separation/processing
 - b. Blood grouping
 - c. Screening for infectious markers which includes nucleic acid testing (NAT)

7.0 College of Nursing

Principal

Manju Vatsa

Lecturers

Sandhya Gupta	Rachel Andrews Ashia Qureshi (superannuated; upto 31 October 2014)	Deepika C. Khakha Kamlesh Sharma L. Gopichandran
Shashi Mawar (upto 31 December 2014)	Poonam Joshi Sibi Riju (from 14 August 2014)	Aditi P. Sinha (from 9 April 2014)
Pragya Pathak (from 22 May 2014)	Ujjwal Dahiya (from 7 April 2014)	Rimple Sharma (from 16 August 2014)
Cecilia M.S. (from 1 July 2014)	Manju (from 21 May 2014)	Smita Das (from 22 May 2014)
L. Levis Murry (from 12 June 2014)	Y. Surbala Devi (from 28 May 2014)	

Senior Nursing Tutor

Geeta Razdan

Nursing Tutor

Kiran Singh Simak	Gayatri Batra	Sucheta
Babita Sahoo	Philomina Thomas	Meena Ara
Seema Sachdeva	Anubha Devagourou	Neelima Raaj (on Study leave)
Nemkholam	Hansaram	Monika Sabharwal

EDUCATION

Undergraduate

BSc (Hons) Nursing: 61 students graduated from the 4 year course.

BSc Nursing (Post-certificate): 24 students graduated from the 2 year course.

Postgraduate

MSc Nursing: 24 students graduated from the 2 year course and 22 students joined the program this year in the following specialties:

1. Paediatric Nursing
2. Psychiatric Nursing
3. Cardiology/CTVS Nursing
4. Neurosciences Nursing
5. Oncological Nursing

The College of Nursing conducted orientation/briefing sessions for 6 groups of visitors from various educational institutions from India.

Continuing Nursing Education (CNE)

1. Workshop on 'Mental Health Aspects in Disaster and Emergency Nursing', 18–20 September 2014; 30 nurses from AIIMS attended the workshop. Dr Sandhya Gupta, Lecturer was the coordinator.
2. Workshop on 'Cardio update', 29–30 October 2014; 30 nurses from AIIMS attended the workshop. Mr L. Gopichandran, Lecturer was the coordinator.
3. Symposium on 'Organ Donation' on Annual Day 2014, 18 September, 2014; Ms S. Mawar and Ms Ujjwal Dahiya, Lecturers were the coordinators.
4. Workshop on 'Neonatology–Nursing update: We nurture they bloom', 20–22 November 2014; 28 nurses attended the workshop. Ms Poonam Joshi, Lecturer was the coordinator.
5. Workshop on 'Human Relations in Health care', 9–11 February 2015; 28 nurses attended the workshop. Mrs. Deepika C Khakha, Lecturer was the coordinator.
6. Workshop on 'Stress management' programme for Nursing students, JLN auditorium by Brahm Kumari, Dr Usha Kiran

7. 'Quality assurance in nursing care', 16-18 March 2015, 28 nurses attended the workshop. Ms Kamlesh Sharma, Lecturer was the coordinator.

Lectures delivered

Dr Manju Vatsa: 4	Ms Rachel Andrews: 3	Mrs Deepika C. Khaka: 11
Ms Kamlesh Sharma: 5	Ms Poonam Joshi: 4	Ms Seema Sachdev: 1
Mr L. Gopichandran: 2	Ms Ujjwal Dahiya: 3	Ms Rimple Sharma: 1
Ms Anubha Devagourou: 3	Ms Cecilia M.S.: 4	Ms Philomina Thomas: 2
Mr L. Levis Murry: 4		

Oral papers/posters presented: 11

RESEARCH

Funded projects

Ongoing

1. Collaborate Care of Diabetes with Depression. Collaboration with University of Emory, USA; funded by NIH for 5 years starting 2014.

Departmental projects

Ongoing

1. A pre-experimental study to assess the efficacy and acceptability of educational Apps on sick newborn care in smart phone by nursing students
2. A study to assess knowledge of nursing personnel related to organ donation
3. Knowledge and attitude of pregnant women towards Copper T insertion. (BSc Nursing students project)
4. A study to assess the attitude towards objective structure practical examination among undergraduate nursing students, College of Nursing, AIIMS, New Delhi.

PUBLICATIONS

Journals: 15

Chapters in Books: 2

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:
 - i) Participated in 4 rounds of Pulse Polio program at 6 centres of South Delhi, organized by Govt. of N.C.T. of Delhi. Ms Kamlesh Sharma coordinated and supervised the program.
 - ii) 112health education sessions in rural areas and >151 in urban slums and OPDS of AIIMS on various health issues, such as B.P. Immunization, New born care, PNC Care etc.
 - iii) Students conducted 9 surveys in various blocks of Ambedkar Nagar Community to identify their health and social needs and conducted awareness programmes in the form of role plays and exhibitions. Ms S. Mawar & Ms Kamlesh Sharma coordinated and supervised.
 - iv) Celebrated health days including World Health Day, World Malaria Day, World Kidney Day, World TB day, World Asthma Day, Breast feeding week, National Nutritional Week, World Mental Health Day, Obesity Day, World Diabetes Day, World COPD day, World AIDS Day and World food safety day. Organized 17 exhibitions and role plays 16 on related subjects. Ms Kamlesh Sharma coordinated and supervised.
 - v) Blood donation Camp on 46 Annual Day 2014, 19 November 2014; 77 units of blood were collected, Mr Hansaram, Tutor was the coordinator.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Manju Vatsa continued as Elected President of Indian Association of Neonatal Nurses; General Body, Executive and Nursing education committee Member of Indian Nursing Council; Core group member of INC PhD Consortium; Peer team member for Fr. Muller College of Nursing, Mangalore for NAAC (national assessment & accreditation Council of UGC); Member UGC expert committee for inspection of Desh Bhagat University Panjab, NOIDA international university, and MG University of Medical Sciences and Technology, Jaipur; Inspector for Ch. Charan Singh University, Meerut for inspection of NIMT Institute of Medical & Paramedical sciences, NOIDA; Member selection committees for UPSC, IGIMS Patna, PGIMS Rohtak, NIMHANS Bangalore, SGPGI Lucknow, TNAI, Jamia Hamdard University, AIIMS; Examiner for JNU PhD viva, RGUHS - INC PhD consortium; Invited for NAAC assessors meeting at Bangalore & certified as assessor; Participated in various committees of AIIMS - prevention of sexual harassment at workplace, task force on women safety & gender sensitization, women grievance cell, Staff Council, Convocation, Institute day, selection committee, CMET - staff development, & technical specification committee, anti ragging squad, Counseling for admission to 7 AIIMS for BSc (Hons) Nursing, etc.; Invited as Judge for Hindi Essay Competition by Hindi section, AIIMS during Hindi Pakhwara celebrations; Nominated executive member of AIIMSONIANS; Acted as expert for MOHFW - child health division for Harmonization of child health training: development of training package; Invited for workshop on Justice dispensation system in India & certified as Para legal volunteer; Chairperson for session on 'Integrating informatics in nursing curriculum' Nursing informatics backbone of Health IT. 4th International CME, workshop & conference on Cost Effective use of technology in emergency healthcare, AIIMS, 5.9.2014; Chief guest for inauguration of national workshop on Nurse administrators-leading the way: a holistic view of excellence' RAK college of nursing, 9.3.2015

Mrs Deepika Khakha attended the meeting of GFATM R-7 Counselling and Training for Counselling Supervisors at University of Delhi on 28-29 May 2014 & 11 March 2015; Member of 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; Chaired award paper session of Fourth International Conference on Cost Effectiveness use of technology in Emergency Healthcare, 6 September 2015; Attended meeting of research on Collaborate Care of Diabetes with Depression, 23-24 September 2014, Chennai; Expert and Resource person for GFATMR-7 at University of Delhi; Editorial board of Journal of Nursing Science and Practice; Reviewer for Journal of Advanced Research in Nursing Science, and Reviewer for Baba Farid University Nursing Journal; Counselling Supervisor for GFATM R-7 District of Delhi; Content Validity done for PhD Thesis (Nursing) on 'A study assess the psychosocial needs of PLWHA' Indian Nursing Council and 8 postgraduate nursing students research projects of Jamia Hamdard, Chaudhary Charan Singh University and Delhi University; Examiner for PGI, Chandigarh, Baba Farid University of Health Sciences and Jamia Hamdard University.

Ms K. Sharma was awarded PhD in Nursing under the National Consortium of PhD in Nursing of Indian Nursing Council in collaboration with Rajiv Gandhi University of Health Sciences, Bangalore, Karnataka, in October 2014; Paralegal volunteers training for doctors and staff of AIIMS, New Delhi on 21-22 Jan 2015 organized at AIIMS; Organized 3 Exhibitions and 1 role play on AIIMS Institute Day; **Examinership:** Ten universities (Gujarat University; PGIMER, Chandigarh; Jamia Hamdard University, West Bengal University of Health Sciences; Swami Rama Himalayan University, Dehradun; Dr. Ram Manohar Lohia Avadh University, Faizabad, UP; Gwalior university; Baba Farid University of Health Sciences, Punjab; PGIMS, Rohtak, Haryana; and North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Shillong); Contributed as Resource person in 'Screening of women for early detection of breast and cervical cancer' on 16/10/2014 organized by the Institute of Preventive Oncology at Noida, in collaboration with Department of surgery, AIIMS, New Delhi, Ad-hoc inspector of Indian Nursing Council (INC) and Del Nursing Council (DNC), Co-opt member of nursing Education Committee (INC), Central Assistant Public Information officer for college of nursing since July 2010, Student Nurses Association (SNA) advisor since 2012, Deputy hostel superintendent, New Nurses Hostel, Masjid Moth, AIIMS, Since 08/12/2014, Member board of studies of Rama Himalayan University, Swami Rama Nagar, Dehradun for Post Graduate programme-MSc Nursing in community health nursing (Oct 2014).

Ms Poonam Joshi was examiner for Jamia Hamdard University, MM College of Nursing, Ambala, & GGSIP University

Mr L. Gopichandran was Member board of study for MSc nursing programme by Swami Rama Himalyan University; Chairperson for session on Quality of life for CKD patients, World kidney day, 12 March 2015, RML Hospital, Delhi; Curriculum committee member of ORT, Operation Theatre Technique Curriculum for National open school, MHRD, 19-20 March 2015, NOS, Noida

Ms Philomina Thomas was involved in rating of articles in the field of obstetrics and pediatrics for McMaster Publishing house.

Ms Seema Sachdev received first prize in quiz competition in international CME workshop and conference of 'Cost Effective Use of Technology in Emergency Healthcare', AIIMS, 4-6 September 2014.

8.0 Research Section

Dean (Research)

N.K. Mehra (upto 30 November 2014)

S.K. Acharya (from 27 January 2015)

Sub-Dean (Research)

R. Goswami (upto 8 November 2013)

Pramod Garg (from 8 November 2013)

Administrative Officer

Narender Kumar

Accounts Officer

Smt Meenakshi Dabral

Stores Officer

Rakesh Sharma

Research is a major thrust area for the faculty and scientists at AIIMS and towards that end the Research Section plays an important role of a facilitator by providing encouragement for obtaining extramural research projects funded by various national/international agencies such as Indian Council of Medical Research (ICMR), Department of Science and Technology (DST), Department of Biotechnology (DBT), Council of Scientific and Industrial Research (CSIR), Ministry of Health and Family Welfare (MoHFW), World Health Organization (WHO), Wellcome Trust and inter-country scientific collaborations. The Research Section acts as the nodal facilitator point for supporting all research activities at AIIMS and by providing efficient administration developing guidelines and maintaining accounts and stores management of research funds, appointment of research staff, payment and purchase of equipment etc.

The Section has three functional units, viz. Administrative, Accounts and Stores. Additionally, a technology transfer and patent cell guides faculty/scientists in intellectual property rights (IPR) and filing appropriate patents. The Dean (Research) and Sub-Dean (Research), a team of senior officials and assistants looking after the day-to-day administration, finance and store purchase. The Research Section appoints research, technical and non-technical support staff in the extramural research projects and the staff thus appointed is called 'Project Staff'. All machinery/equipment/chemicals/contingencies, etc. are purchased through the Research Section. The Section deals with all research related work as per guidelines framed for this purpose.

The extramural research in AIIMS is guided by the Dean's Research Committee (DRC) and the Research Advisory Council (RAC).

DEAN'S RESEARCH COMMITTEE (DRC)

The committee was constituted on 9 December 2013 to discuss various suggestions received towards improving the functioning of the Research Section, to provide directions to enhance the overall atmosphere of biomedical research and to promote mission-oriented and theme-based inter-departmental, inter-institutional and inter-country research collaborations. The DRC provides guidance for better coordination with the funding agencies, encourages time-bound research activities and frames policies relating to administrative, financial and procurement matters. The members of the DRC are:

- | | |
|--|-------------|
| 1. Dean (Research) | Chairperson |
| 2. Dean (Academic) | Member |
| 3. Professor Anurag Srivastava
Head, Department of Surgical Disciplines | Member |
| 4. Professor V.K. Paul
Head, Department of Paediatrics | Member |
| 5. Professor Lalit Kumar
Head, Department of Medical Oncology | Member |
| 6. Professor Kameshwar Prasad
Head, Department of Neurology | Member |
| 7. Professor Arvind Bagga
Department of Paediatrics | Member |

8. Professor J.S. Tyagi Department of Biotechnology	Member
9. Professor A.K. Dinda Department of Pathology	Member
10. Professor K. Anand Centre for Community Medicine	Member
11. Professor Raju Sharma Department of Radiodiagnosis	Member
12. Professor Nikhil Tandon Head, Department of Endocrinology	Member
13. Professor V.K. Mohan Department of Anaesthesiology	Member
14. Professor Vineet Ahuja Department of Gastroenterology	Member
15. Dr Rohit Bhatia Additional Professor, Department of Neurology	Member
16. Dr V. Sreenivas Additional Professor, Department of Biostatistics	Member
17. Dr Amit Gupta Additional Professor, Department of Emergency Medicine, JPN Trauma Centre	Member
18. Sub-Dean (Academic)	Member
19. Dr Poorva Mathur Additional Professor, Department of Microbiology, JPN Trauma Centre	Member
20. Dr Gurvinder Kaur Scientist-IV, Department of Transfusion Immunology and Immunogenetics	Member
21. Sub-Dean (Research)	Member-Secretary

RESEARCH ADVISORY COUNCIL (RAC)

The Research Advisory Council was constituted on 11 February 2014 to suggest policy and strategy with regard to research infrastructure, priorities, capacity development, resource mobilization and linkages with the overall aim of promoting clinical and basic research relevant to the present needs. The RAC also suggests measures to promote inter-departmental, inter-institutional and inter-country collaboration and provide specific inputs to encourage and achieve translational value of the research activities. The members of the RAC are:

1. Professor M.K. Bhan Former Secretary, Department of Biotechnology, Government of India, New Delhi.	Chairman
2. Professor V.M. Katoch Former Secretary, Department of Health Research and Former Director General, ICMR, New Delhi.	Alternate Chairman
3. Professor Vijay Raghavan Secretary, Department of Biotechnology, Government of India, New Delhi.	Member
4. Professor M.C. Misra	Member

Director, AIIMS, New Delhi.	
5. Professor N.K. Ganguly Distinguished Professor of Biotechnology, Former Director General, ICMR, National Institute of Immunology, New Delhi.	Member
6. Professor Yogesh Chawla Director, Post Graduate Institute of Medical Education & Research, Chandigarh.	Member
7. Professor P.K. Julka Dean (Academic), AIIMS, New Delhi.	Member
8. Professor Gullapalli N. Rao Distinguished Chair of Eye Health Chair, Hyderabad Institute Founder, LV Prasad Eye Institute, Hyderabad.	Member
9. Dr T.K. Chandrasekhar Secretary, Science and Engineering Research Board (SERB) Government of India, 5 & 5A, Lower Ground Floor, Vasant Square Mall Sector-B, Pocket-5, Vasant Kunj, New Delhi	Member
10. Dr S.S. Kohli Scientist 'G', Government of India, Department of Science and Technology Technology Bhawan, New Mehrauli Road, New Delhi	Member
11. Professor T.P. Singh Ex-Professor and Head, Department of Biophysics/Distinguished Professor of Biotechnology, AIIMS, New Delhi.	Member
12. Dr Satyajit Rath Scientist-VII, National Institute of Immunology Aruna Asaf Ali Road, New Delhi.	Member
13. Professor Syed Hasnain Distinguished Professor of Biological Sciences Indian Institute of Technology, New Delhi.	Member
14. Dr Sudhir Krishna The National Centre for Biological Sciences GKVK, Bellary Road, Bangalore.	Member
15. Dr Shubhada V. Chiplunkar Director, Advance Centre for Treatment Research and Education in Cancer (ACTREC), No. 2, Sector, 22, Kharghar, Navi Mumbai	Member
16. Dr Soumya Swaminathan Director, National Institute for Research in Tuberculosis No.1, Mayor Sathiyamoorthy Road, Chetpet, Chennai	Member
17. Dr T.S. Rao Senior Advisor, Department of Biotechnology Government of India, New Delhi.	Member
18. Dr D.K. Sharma Medical Superintendent, AIIMS, New Delhi.	Member
19. Sub-Dean (Research)	Member
20. Dean (Research)	Member Secretary

INTRAMURAL RESEARCH GRANTS (Basic and Clinical Sciences)

The ongoing intramural research projects for the financial year 2014-15 are listed below.

Project code	Investigator name	Sanctioned amount	Title
A-128	Ashutosh Halder	450,000	Testicular germ cell arrest (maturation arrest): An investigation of phenotype-genotype correlation
A-133	Anita Chopra	150,000	Detection of minimal residual disease in T-lineage acute lymphoblastic leukemia by a low-cost PCR analysis of clonal T-cell receptor gene rearrangement
A-137	Veena Jain	50,000	To develop an indigenous bite force measuring sensor to measure the bite force absorbed by the soft liner in complete denture patients
A-152	Manoj K. Singh	499,886	Oral carcinoma markers to predict clinical course and prognosis
A-171	Kapil Sikka	100,000	Evaluation of the surgical trauma to intracochlear structures after insertion of intracochlear electrode arrays
A-172	Chirom Amit Singh	50,000	An evaluation of the different endoscopic approaches to inner ear
A-177	M. Vanathi	251,380	Tears analysis in ocular graft versus host disease
A-180	Sunil Kumar Verma	334,594	Evaluation of novel markers of acute coronary syndrome in young adults
A-184	Shalimar	500,000	Use of indocyanine green in assessment of patients with hepatocellular carcinoma undergoing transarterial chemoembolisation as a predictor of development of liver failure
A-186	Sharmistha Dey	400,000	Frailty in old age: Development of sirtuin as protein marker for diagnosis
A-189	S. Datta Gupta	500,000	Hepatic cytokine expression, hepatocyte proliferation, progenitor cell activation in chronic hepatitis
A-190	Tapas Chandra Nag	250,000	Status of histone acetyl transferase and SIRT 1 expression in a rat model of light-induced retinal damage
A-191	Sameer Bakhshi	13,365	Assessment of expression of vascular endothelial growth factor in non hodgkins lymphoma in children <18 years: A prospective study
A-193	Sanjeev Kumar Gupta	400,000	IKZF1 (Ikars) mutations in B cell acute lymphoblastic leukemia
A-195	Gita Satpathy	250,000	A prospective comprehensive study of the atypical conjunctivitis occurring in Delhi and development of a multiplex PCR assay for rapid diagnosis of viral conjunctivitis
A-197	Sambhunath Das	358,000	Clinical efficacy and safety of perioperative dexmedetomidine therapy in patients undergoing valvular heart surgeries - a randomized control trial
A-201	D.N. Rao	400,000	Pentavalent antigenic peptide (PAP) based approach towards diagnosis of dengue infection
A-202	Neeta Singh	288,377	Impact of local endometrial trauma on the outcome of IVF in women with previously failed implantation: Exploring the genome wide transcriptomic basis

A-203	Archna Singh	196,500	Assessment of mitochondrial DNA copy number in pediatric cases of acute lymphoblastic leukemia
A-204	Rama Chaudhry	300,000	Detection of Legionella pneumophila from hospital environment and development of LAMP-PCR for rapid detection of Legionella species from environmental samples
A-205	Vaishali Suri	300,000	A study of clinicopathological features and molecular genetic alterations in adult versus pediatric meningiomas
A-208	S.B. Ray	350,000	Local administration of cannabinoid receptor 1 agonist at the surgical site relieves postoperative pain in rats
A-211	Renu Sinha	150,000	Evaluation of minimum alveolar concentration (MAC) of sevoflurane and bispectral index (BIS) for maintenance of central eye position during short ophthalmic procedure in spontaneous breathing children under general anaesthesia and correlation of MAC of sevoflurane with BIS
A-213	Kapil Yadav	475,000	Effectiveness of directly observed iron supplementation during pregnancy in a rural population in Haryana: A randomized control trial
A-215	Sanjay Kumar Agarwal	330,000	Effect of rifampicin as part of antitubercular therapy on antihypertensive drug requirement in patients of kidney disease
A-216	Sumit Malhotra	50,000	Population based study on refractive errors, presbyopia and spectacle coverage in rural North Indian adults
A-218	T. S. Roy	260,000	Age related morphological and neurochemical changes in the human spiral ganglion
A-219	Ravi Mittal	500,000	Isolation and molecular characterization of human bone marrow derived mesenchymal stem cells
A-220	Uma Kanga	500,000	Role of HLA-G in acute rejection following renal transplantation
A-223	Chittaranjan Behera	400,000	Association of menstruation with completed suicide - a hospital based case control study
A-226	Nishkarsh Gupta	50,000	Comparative evaluation of forced air warming and infusion of amino acid enriched solution on intraoperative hypothermia in patients undergoing major oncological surgeries: A prospective randomized study
A-227	Mohd Ashraf Ganie	500,000	Improvement on levothyroxine replacement of clinical, biochemical, hormonal and insulin sensitivity parameters in women with polycystic ovary syndrome (PCOS) presenting with subclinical hypothyroidism (SCH)
A-228	Yatan Pal Singh Balhara	55,803	A comparative study of prevalence of metabolic syndrome among patients with opioid and alcohol dependence syndrome
A-229	Venkateswaran K. Iyer	500,000	A pilot study on microRNA expression pattern in Wilms tumor samples and peripheral blood: Relation to histopathology classification and stage
A-230	H. Krishna Prasad	330,000	The role of histone like proteins (Hlp) of M. tuberculosis and related pathogens during infection
A-231	Ritu Sehgal	86,399	The expression of p75NTR and TrkA receptors in breast cancer

A-232	Jasbir Kaur	500,000	Expression profile of genes involved in pathogenesis of diabetic retinopathy
A-233	Ravinder Kumar Pandey	500,000	To evaluate the efficacy of tranexamic acid in reducing inflammatory response in lieno-renal shunt surgeries- A randomized double blind placebo control study
A-239	Neeraj Parakh	500,000	Manual thrombus aspiration with fractional flow reserve guided stenting during primay angioplasty
A-240	Adarsh Kumar	214,924	Quantitative estimation of aluminum using ICP-AES from fatal aluminum phosphide poisoning
A-243	Anil Kumar Goswami	500,000	Non-communicable diseases (NCDs) among elderly persons in a resettlement colony of Delhi
A-245	Sujoy Pal	480,000	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 comparison
A-246	Kunzang Chosdol	500,000	Effect of FATI on tumor suppressor signaling pathway [Salvador-Wart-Hippo (SWH) pathway] in glioma
A-247	S.S. Kale	225,000	Design and development of cost effective multipurpose research phantom, simulating patient for high resolution stereotactic imaging and precise radio-surgery
A-248	Madhusudhan K.S.	180,000	Role of diffusion weighted and perfusion magnetic resonance imaging in the evaluation of response of osteosarcoma to neoadjuvant chemotherapy
A-249	Nikhil Tandon	499,000	Influence of pancreatic exocrine sufficiency and role of GLP I in regulating glycemic variability in patients with diabetes due to chronic idiopathic pancreatitis: A cross-sectional, observational study
A-250	Kalpana Luthra	500,000	Generation and characterization of HIV-1 primary isolates from paediatric patients for their neutralization susceptibility to broadly neutralizing antibodies
A-251	Pramod Garg	500,000	Genomic and epigenomic expression in gallbladder cancer
A-252	Ravinder Goswami	500,000	Assessment of the molecular factors predisposing basal ganglia for calcification: Newer osteogenic molecules
A-253	Soumita Bagchi	320,625	Prospective monitoring of BKV replication in the first year following renal transplantation in adult Indian renal transplant recipients
A-254	Lalit Dar	400,000	The role of human cytomegalovirus (HCMV) in ulcerative colitis (UC)
A-255	C.S. Bal	400,000	(68Ga) Gallium-labelled PSMA PET/CT in the evaluation of prostate cancer patients
A-256	D.K. Pawar	310,000	Comparison of three different dextrose containing intra operative fluid regimens on glucose homeostasis and electrolyte balance in neonates
A-257	K.H. Reeta	350,000	Study of the efficacy of antiepileptic drug-nano drug delivery systems in experimental animal models
A-258	Vijay L. Kumar	400,000	Studies on the efficacy of artesunate in experimental model of colorectal cancer

A-259	Jagriti Bhatia	400,000	Evaluation of the protective effect of eugenol on bleomycin induced pulmonary fibrosis in rats
A-260	Rama Jayasundar	500,000	In-vitro assessment of anti-HIV potential and phytometabolomics of select medicinal plants
A-261	Sandeep R Mathur	500,000	Stratification of breast cancer in young females by molecular subtypes: A clinicopathological study
A-262	Seema Sen	500,000	Clinical implication of epithelial mesenchymal transition markers in eyelid sebaceous gland carcinoma
A-263	Alpana Sharma	500,000	Study of dendritic cells in pathogenesis of pemphigus vulgaris
A-264	Vivek Trikha	500,000	Temporal expression of serum biochemical markers of bone turnover in femoral shaft fractures operated with intramedullary nailing
A-265	Sujay Khandpur	330,000	Comparison of serum and tissue Th1 and Th2 cytokine levels in active and stable psoriasis and correlation with disease severity
A-266	Shah Alam Khan	232,000	Evaluation of serum vascular endothelial growth factor (VEGF) in children with Legg-Calve-Perthes disease
A-267	Gurvinder Kaur	400,000	Lineage specific chimerism analysis for monitoring engraftment following allogenic haematopoietic stem cell transplantaion (HSCT)
A-268	S. Senthil Kumaran	475,000	Post stroke neuroplastic potential during spontaneous recovery for motor processing
A-269	Jatinder Katyal	255,000	To determine the effect of seizure, zinc administration and antiepileptic drugs on brain and body zinc homeostasis
A-270	D. S. Arya	440,000	Therapeutic effect of mangiferin in experimental models of myocardial infarction in streptozotocin-induced diabetic rats
A-271	Surabhi Vyas	100,000	Role of non contrast MRI including diffusion weighted (DWI) and contrast enhanced MR imaging in evaluation of synovitis of small joints of wrist and hands in patients of rheumatoid arthritis (RA)
A-272	Vijay Kumar	200,000	Evaluation of adverse reaction to metal debris (ARMD) in Indian patients who have undergone hip arthroplasty with a metal on metal articulation
A-273	S. Arulselvi	400,000	Histopathological evaluation of traumatic brain injury (tbi) induced acute gastrointestinal injury
A-274	Asmita Patil	450,000	In-vitro study of the molecular nature of paracrine interaction between the testicular Sertoli and germ cells of immature and mature male mice
A-275	Rohit Bhatia	500,000	Role of blood biomarkers in differentiating ischemic stroke and intracerebral hemorrhage; and their association with etiology and outcomes
A-276	Shashi Mawar	350,000	Effectiveness of nurse led community educational program in diabetes management among geriatric population in an urban community of Delhi
A-277	Rachna Seth	300,000	To determine the role of procalcitonin (PCT) as a diagnostic biomarker for febrile neutropenic episodes in children undergoing treatment for childhood cancers

A-278	Sachidanand Jee Bharati	100,000	Aprepitant versus dexamethasone for preventing postoperative nausea and vomiting in breast cancer patients
A-279	Pranay Tanwar	200,000	A prospective study to evaluate Wilm's tumor 1 (WT1) mutation in de novo cases of acute myeloid leukemia and correlating their outcome with treatment response
A-280	V. Darlong	78,000	Intraocular pressure during general anaesthesia with classic LMA as compared to facemask: A randomized study
A-281	Subodh Kumar	500,000	Prognostic significance of cytokines and biomarkers in patients with traumatic lung injuries
A-282	T. Velpandian	450,000	Functional importance of nucleoside transporters in the ocular disposition of their substrates - for targeted ocular drug delivery
A-283	Sandeep Agarwala	500,000	Exploring global methylation pattern's in Wilms tumor: A pilot study
A-284	Dinesh Kalyanasundaram	500,000	Design and testing of orthodontic miniscrews embedded with sensors to detect inflammation - Phase I
A-285	Naveen Yadav	492,530	Evaluation of coagulation status in trauma hemorrhagic shock patients (THS) who undergo emergency surgery using thromboelastography, protein C and protein S markers
A-286	Puneet Misra	500,000	Prevalence and risk factors of complications in diabetes patients of a rural community of Ballabgarh
A-287	Sujata Mohanty	400,000	To compare the differential potential of mesenchymal stem cells derived from different sources (bone marrow, tissue and dental pulp) into cardiomyocytes using 5-azacytidine and TGF B1 as inducers
A-288	Niraj Kumar	280,000	A randomized controlled study of the effects of single dose preoperative vitamin C versus placebo on postoperative morphine consumption after spine surgery
A-289	Saroj Kaler Jhahria	500,000	A study on the involvement of specific neurotransmitters and neuropeptides at the spinal cord level in postoperative pain in rats
A-290	Mamta Sood	100,000	A study of the clinical correlates of quantitative electroencephalographic spectral analysis in first episode psychosis
A-291	Sudip Sen	400,000	Analysis of the expression of mucins in human oral mucosal epithelial cells (OMEC) on using mycophenolate mofetil (MMF) <i>in vitro</i>
A-292	Nalin Mehta	495,000	Molecular basis of cationic anti-microbial peptide action on human cytotrophoblast cell lines <i>in vitro</i>
A-293	Veereshwar Bhatnagar	480,000	A comparative correlation of serological markers of autoimmune inflammation with the immunohistochemistry of the liver in biliary atresia
A-294	Dipika Deka	500,000	Isolation and characterization of mesenchymal stem cells from amniotic fluid and Wharton jelly
A-295	Reeta Mahey	470,000	To evaluate the role of new rapid diagnostic modalities Gene Xpert and urinary lipoarabinomannan (LAM) in the diagnosis of genital tuberculosis in infertile couples—A prospective pilot study

A-296	O. P. Murty	480,000	The study the alcohol production by microbes in blood and vitreous humor in human body and during storage of samples
A-297	Bimal Kumar Das	400,000	To establish a real time PCR based rapid assay for the detection of causative pathogens of acute bacterial meningitis
A-298	Achal Kumar Srivastava	400,000	CSF testosterone in motor neuron disease
A-299	M. Srinivas	450,000	Comparison of various bilio enteric anastomosis–ultra structural evaluation by electron microscopy
A-300	A. Shariff	450,000	Experimental colonic diversion in new born rats
A-301	M.D. Ray	60,000	Role of Tisseel (Fibrin sealant) in ilio inguinal block dissection to reduce the rate of lymphatic drainage and seroma formation, thereby morbidity
A-302	Vijay Sharma	400,000	Immunological disruptions in Indian orthopaedic trauma patients and its role in formulation of damage control orthopaedics guidelines
A-303	Taposh K. Das	500,000	Identification and evaluation of fluoride induced nephrotoxicity markers: A diagnostic tool for early detection of fluorosis
A-304	Renu Bhatia	250,000	Effect of transcranial magnetic stimulation on pain status of chronic tension type headache patients
A-305	Ashish Kumar Saini	350,000	Micro RNA expression profile in patients with renal mass and their association with prognosis
A-306	Pratap Sharan	100,000	The development of a culturally sensitive comprehensive measure and a screening scale for depression in India, using an item response approach
A-307	Sachin Talwar	500,000	Effect of pre-operative administration of allopurinol on postoperative outcomes in patients undergoing intracardiac repair of Tetralogy of Fallot
A-308	V. Seenu	475,000	A study of epigenetic of breast cancer by evaluation of tissue site-specific promoter DNA methylation profiles in breast cancer
A-309	Biplab Mishra	300,000	A study of role of lymphangiogenesis in breast cancer

EXTRAMURAL RESEARCH PROJECTS

The Research Section receives project proposals from faculty/scientists of AIIMS duly forwarded by Centre Chiefs and Heads of Departments. It is mandatory for a project proposal to be routed through the Research Section for the first stage of vetting in accordance with the procedure being followed at the Institute. During the year 2014–15, the Research Section received extramural research support of Rs 71 crores from various national and international agencies.

RECOGNITION OF RESEARCH ACHIEVEMENT

The Research Section recognizes quality research output of its faculty/scientists by awarding ‘AIIMS Excellence Awards’. The following awards were given:

Basic Category Awards

S. No.	Name, Designation, Department	Paper/Publication Title	Journal	Prize
1	T.C. Nag, Professor, Anatomy	Differential effects of prenatal chronic high-decibel noise and music exposure on the excitatory and inhibitory synaptic components of the auditory cortex analog in developing chicks (<i>gallus gallus domesticus</i>)	Neuroscience (Elsevier)	Second
2	Sharmistha Dey, Assistant Professor, Biophysics	Synthesis and biological evaluation of novel peptide BF2 as an antibacterial agent against clinical isolates of vancomycin-resistant enterococci	Journal of Medicinal Chemistry	Second
3	Kunzang Chosdol, Professor, Biochemistry	A combined gene signature of hypoxia and notch pathway in human glioblastoma and its prognostic relevance	PLOS One	Third
4	A.K. Dinda, Professor, Pathology	A comparative study on renal biopsy before and after long-term calcineurin inhibitors therapy: an insight for pathogenesis of its toxicity	Human Pathology	Third
5	D.N. Rao, Professor, Biochemistry	Evaluation of multiple antigenic peptides based on the chikunhunya E2 protein for improved serological diagnosis of infection	Viral Immunology	Commendation Certificate
6	Jagriti Bhatia, Additional Professor, Pharmacology	Telmisartan ameliorates cisplatin-induced nephrotoxicity by inhibiting MAPK mediated inflammation and apoptosis	European Journal of Pharmacology	Commendation Certificate

Clinical Category Awards

S. No	Name, Designation, Department	Paper/Publication Title	Journal	Prize
1	Kameshwar Prasad, Professor, Neurology	Intravenous autologous bone marrow mononuclear stem cell therapy for ischemic stroke: A multicentric, randomized trial	Stroke Journal	First
2	Rakesh Lodha, Additional Professor, Paediatrics	Pharmacokinetics of isoniazid, rifampicin, pyrazinamide and ethambutol in Indian children	BMC Infectious Diseases	Second
3	Somesh Gupta, Additional Professor, Dermatology and Venereology	Intralesional injection of Mycobacterium w vaccine vs imiquimod, 5%, cream in patients with anogenital warts: A randomized clinical trial	JAMA Dermatology	Second
4	Rajinder Parshad, Professor, Surgery	Symptomatic outcome following laparoscopic Heller's cardiomyotomy with Dor fundoplication versus laparoscopic Heller's cardiomyotomy with angle of His accentuation: Results of a randomized controlled trial	Journal of Surgical Endoscopy	Third

5	Noopur Gupta, Assistant Professor, Ophthalmology	Prevalence of corneal diseases in the rural Indian population: the Corneal Opacity Rural Epidemiological (CORE) Study	BJO	Third
6	C.S. Bal, Professor, Nuclear Medicine	177 Lu-EDTMP for palliation of pain from bone metastases in patients with prostate and breast cancer: a phase II study	European Journal of Nuclear Medicine and Molecular Imaging	Commendation Certificate
7	Rachna Meel, Assistant Professor, Ophthalmology,	Randomized controlled trial in Groups C and D retinoblastoma	Journal of American Academy of Ophthalmology	Commendation Certificate
8	Rashmi Ramachandran, Additional Professor, Anaesthesiology, Pain Medicine and Critical Care	Endotracheal intubation with intubating laryngeal mask airway(ILMA) TM , C-Trach TM , and Cobra PLA TM in simulated cervical spine injury patients: A comparative study	Journal of Anaesthesia	Commendation Certificate
9	Viney Gupta, Additional Professor, Ophthalmology	Risk of perimetric blindness among juvenile glaucoma patients	Journal of Ophthalmic & Physiological Optics	Commendation Certificate

OTHER ACTIVITIES

The following activities have been initiated for the benefit of the faculty/scientists.

1. Clinical investigator development program: Being a Principal Investigator
2. Courses on research methodology for postgraduates

9.1 Anaesthesiology

Professor and Head

Chandralekha (upto 28 February 2015)

Mahesh Kumar Arora (from 1 March 2015)

Professors

Ravinder Kumar Batra
Maya Dehran
Ganga Prasad

Rajeshwari Subramaniam
Dilip R. Shende
Virender Kumar Mohan

Anjan Trikha
Lokesh Kashyap
Vimi Rewari

Additional Professors

Vanlal Darlong
Babita Gupta
Chhavi Shawney

Renu Sinha
Ravindra Kumar Pandey

Jyotsana Pun
Anjolie Chhabra
Rashmi Ramachandran

Associate Professors

Amar Pal Bhalla

Assistant Professors

Dalim Kumar Biadya
Preet Mohinder Singh
Anil Agarwal
Debesh Bhoi

Devalina Goswami
Puneet Khanna
Rahul Anand

Naveen Yadav
Bikash Ranjan Ray
Praveen Talawar
Ajeet Kumar

HIGHLIGHTS

Professor M.K. Arora took over as Head of the Department on 1 March 2015. The faculty members took active interest in clinical work, teaching and research. Three funded projects were completed and 6 funded projects were initiated with financial support from AIIMS or ICMR. The department continued to work on 8 interdepartmental research projects and completed 7 such projects. The department was able to complete 32 research projects (non-funded) and start 40 new projects in addition to maintenance of high standards of patient care. The department organized 3 conferences/workshops/CMEs involving multiple internationally well-known speakers/academicians. Many of the departmental faculty received recognition/awards at national level from various government agencies for their contribution towards anaesthesia.

Faculty members delivered nearly 100 talks on challenging topics at various national and international platforms. The department published 73 papers in reputed national and international journals. In addition, many faculty members were elected/reappointed to editorial boards of various reputed national/international journals. The present year marked the path of progress in all fields of anaesthesia keeping in mind high standards targeted by our institute.

EDUCATION

The department actively pursued teaching of undergraduate and postgraduate students, and both MSc and BSc nursing students.

S. No.	Classes/teaching sessions	Number
1.	MBBS students (6th semester)	16
2.	<i>Post Graduate teaching program</i>	
	Seminars	32
	Case presentations	38
	Journal club	32
	Tutorial	30
	End semester exam (Practical+theory)	Every 6 months
	Simulator sessions	12
3	Nursing students (MSc and BSc)	22

In addition, the department focused on teaching inside the operating room that also includes imparting practical skills to MBBS students, Interns, postgraduate students, operating room technicians and nursing students (both MSc and BSc).

CMEs/Workshops/Symposia/National and International Conferences

Organized by the Department

1. INCRAA-3, 6-8 April 2014, AIIMS, New Delhi
2. 5th Annual Conference of Society of Cardiac Anesthesiology-Delhi & NCR and Lunch of World Simulation Society on 31 August 2014 in collaboration with Department of Cardiac Anaesthesia. The simulation sessions were conducted in Department of Anaesthesiology workshop (9th Floor), AIIMS, New Delhi
3. AIIMS Ultrasound Regional Anaesthesia workshop, 28-29 March 2015, AIIMS, New Delhi

Lectures delivered

Mahesh Kumar Arora: 3	Ravinder Kumar Batra: 12	Rajeshwari Subramaniam: 19
Anjan Trikha: 16	Dilip Shende: 4	Virender Kumar Mohan: 2
Anjolie Chhabra: 7	Chhavi Sawhney: 3	Rashmi Ramachandran: 3
Amar Pal Bhalla: 1	Dalim Kumar Baidya: 1	Devalina Goswami: 2
Naveen Yadav: 3	Preet Mohinder Singh: 4	Puneet Khanna: 2
Bikash Ranjan Ray: 4	Anil Agarwal: 1	Rahul Anand: 1
Praveen Talawar: 2	Debesh Bhoi: 2	Ajeet Kumar: 2

Oral papers/posters presented: 12

RESEARCH

Funded projects

Completed

1. Entropy monitoring for titrating anesthetic requirements with TCI-TIVA in adults undergoing laryngeal surgery. Anjolie Chhabra. AIIMS Intramural project. 3years. March 2011-April 2014. Rs 80,000.
2. Comparison of paralysis of laryngeal adductors vs adductor pollicis at the time of intubation with nerve indicated monitor electromyography endotracheal tube. Jyotsna Punj. Intramural grant, AIIMS. 1 year. 2011-14. Rs 2 lakhs.
3. Evaluation of minimum alveolar concentration (MAC) of sevoflurane and bispectral index (BIS) for maintenance of central eye position during short ophthalmic procedure in spontaneous breathing children under general anaesthesia and correlation of MAC of sevoflurane with BIS. Renu Sinha. AIIMS. 1 year. 2014-15. Rs 1 lakh.

Ongoing

1. Mean time to low flow anesthesia-comparison of baums clinical criteria and $Fe/Fi=0.8$ to state entropy < 50 . Dr Jyotsna Punj. AIIMS Intramural. 1 year. Rs. 5 lakhs.
2. Blood transfusion protocols in haemorrhagic trauma patients undergoing surgery and assess coagulation status, protein C and protein S values. Dr Naveen Yadav. AIIMS Intramural. 1 year. 2014-15. Rs. 4,93,000/-.
3. Evaluation of Plasma and Urine Neutrophil Gelatinase-associated Lipocalin (NGAL) as an early diagnostic marker of Acute Kidney Injury (AKI) in trauma patients in surgical intensive care unit. Dr Babita Gupta. ICMR. 2 years. July 2014-June 2016. Rs. 18 Lakhs.
4. Neuroendocrine stress response in robotic urological surgery: dexmedetomidine-based versus fentanyl-based total intravenous anaesthesia. Received Intramural AIIMS Research Grants 2012-13. Dr Rashmi Ramachandran. AIIMS, Intramural Funds 2012-2013. Ongoing. 2012-Till date. Rs. 5 lakhs.
5. To evaluate the efficacy of Tranexamic acid in reducing inflammatory response in Leino-Renal Shunt surgeries-A randomized double blind: Placebo control study. Dr.Ravinder Kumar Pandey. AIIMS. 5 months. November 2014-March 2015. Rs. 5 lakhs.

Departmental projects

Ongoing

1. Efficacy of ultrasound guided caudal morphine for providing perioperative analgesia in adult lumbosacral spine surgery: a randomized controlled trial
2. To evaluate the oral analgesic requirement and patient satisfaction with and without the use of benzydamine hydrochloride oral rinses in lower third molar extraction patients: A randomized controlled trial-pilot study.
3. Comparative evaluation of two doses of Etoricoxib (90mg and 120mg) as pre-operative preemptive analgesic for postoperative pain relief in mandibular fracture surgery under general anaesthesia: A randomized, prospective double blinded placebo controlled trial.
4. Comparison of intraocular pressure change with facemask vs laryngeal mask airway in anaesthetised children
5. Comparison of intrathecal morphine vs TAP block in patients undergoing laparoscopic donor nephrectomy
6. Comparison of ultrasound guided vs landmark technique for paravertebral block in women undergoing mastectomy
7. Effect of dexmedetomine as an adjuvant in femoral nerve block for perioperative analgesia in patients undergoing total knee replacement arthroplasty under subarachnoid block – A dose response study.
8. Incidence and risk factors of back pain after cesarean section: A prospective observational study
9. Optimum timing of LMA Proseal insertion after induction of anaesthesia with propofol in adults: a randomized time response study
10. Paravertebral Block and Transverses Abdominis Plane Block for Perioperative Pain Relief in Patients undergoing Live Donor Open Nephrectomy: A Randomized Controlled Trial
11. Peri-operative Complications of Obstructive Sleep Apnoea Patients Undergoing Upper Airway Surgeries: A Retrospective Analysis
12. To evaluate the efficacy of tranexamic acid in reducing inflammatory response in Leino-Renal Shunt surgeries A randomised double blind placebo control study
13. To study the reduction in intra- and postoperative analgesia requirement and the quality of recovery after preemptive Intrathecal morphine in patients with pelvic acetabular injuries undergoing stabilization
14. To study the role of preoperative echocardiography and cardiac evaluation in perioperative management of geriatric patients with hip fracture in a level 1 trauma centre in a developing country : A retrospective study
15. Ultrasonic Evaluation of Gastric Volume after Fasting for 6 and 8 Hours in Diabetics and Non Diabetics posted for Elective Surgery
16. Paravertebral, Pectoralis II and Serratus anterior plane block in breast surgeries: spread of local anesthetic and post operative analgesia
17. Anaesthetic implications of laparoscopic nephrectomy through transperitoneal and retroperitoneoscopic approach- A prospective observational study
18. Analgesic efficacy of transversus abdominal plane (TAP) block in adult patients undergoing Single Incision Laparoscopic Cholecystectomy (SILC)
19. Anatomical evaluation of epiglottis in infants: A prospective observational study.
20. Comparison of caudal epidural block with single shot paravertebral block for renal surgeries in paediatric patients.
21. Comparison of efficacy and safety of McIntosh laryngoscope, McCoy laryngoscope and Glidescope videolaryngoscope for intubation in morbidly obese patients
22. Comparison of hemodynamic responses and upper airway morbidity following orotracheal intubation in hypertensive patients - Macintosh direct laryngoscope versus Glidescopevideolaryngoscope
23. Comparison of intraocular pressure change with facemask vs laryngeal mask airway in anaesthetised children

24. Comparison of nitroglycerin (NTG), lignocaine subcutaneous perivascular infiltration for radial artery cannulation after failed attempts - Randomized controlled trial
25. Comparison of paravertebral block performed by anatomical landmark technique with ultrasound guided paravertebral block for providing anaesthesia in patients undergoing Breast surgery
26. Comparison of Paravertebral Block with Transverse Abdominis Plane Block for Postoperative Pain Relief in Live Donor Open Nephrectomy
27. Correlation Between Preoperative Pain Prediction Questionnaire, Serum progesterone and Serum prolactin levels with Analgesic Requirement After Caesarean Delivery-A Preliminary Study
28. Does perioperative administration of 5% Dextrose effective in reducing the incidence ofPONV in patients undergoing laparoscopic cholecystectomy : A prospective , double blind,randomized controlled study
29. Effect of entropy guided low flow desflurane anaesthesia on laryngeal mask airway removal time in children undergoing ophthalmic surgery- a prospective, randomized, comparative study.
30. Efficacy of Dexmedetomidine in trabeculectomy surgery under peribulbar block: A randomized control trial
31. Non-invasive estimation of central venous pressure in mechanically ventilated patients using bedside ultrasonography: A comparison of two techniques
32. The Effect of Type of Fluid Hydration on Early Graft Function During Live Related Renal Transplantation
33. The use of Ultrasound as a reliable tool for endotracheal intubation when performed by novice Anaesthesia Residents- A Prospective Observational study.
34. To compare the analgesic efficacy of ultrasound guided quadratus lumborum block to ultrasound guided transversus abdominis plane (TAP) block in patients undergoing operative laparoscopic gynaecological procedures under general anaesthesia.
35. To compare the following outcomes in Modified 45degree head up in lateral decubitus position with sitting position and lateral decubitus position
36. To study the efficacy of clonidine as an adjuvant to ropivacaine in ultrasound guided transversus abdominis block in adult renal transplant recipients – a randomised controlled trial.
37. To study the co+D2:D24mplications of Splenectomy in Patients undergoing early Splenic Artery Ligation
38. TIVA versus SAB for unilateral total knee arthroplasty. Study of recovery profile and time to readiness for discharge.
39. Effect of modified 45° Head up in lateral decubitus position on the success rate of lumbar puncture in obstetric patients undergoing caesarian section.
40. To evaluate the minimum effective tourniquet cuff pressure needed in paediatric extremity surgery by comparing the surgical field, systemic and metabolic changes after tourniquet deflation. A prospective randomized study comparing three different tourniquet cuff pressures.

Completed

1. Comparison between caudal epidural block and popliteal nerve block for postoperative analgesia in children undergoing foot surgery
2. Comparison of efficacy of oral versus regional clonidine for postoperative analgesia following ilioinguinal iliohypogastric block in children.
3. Comparison of three different dextrose containing intraoperative fluid regimens on glucose homeostasis and electrolyte balance in neonates
4. Comparison of total intra venous anesthesia and balanced anesthesia for transoral robotic surgery: a prospective randomized study
5. Comparison of ultrasound guided versus landmark-based technique for ilioinguinal-iliohypogastric nerve blockade in children undergoing surgical procedures

6. Continuous thoracic paravertebral infusion in modified radical mastectomy: Randomized, prospective, Double blinded study to compare efficacy of ropivacaine with and without fentanyl
7. Effect of dexmedetomidine as an adjuvant in femoral nerve block for perioperative analgesia in patients undergoing TKR under SAB- a dose response study
8. Effect of Dexmedetomidine as an Adjuvant to Bupivacaine in Femoral Nerve Block for Perioperative Analgesia in Patients undergoing Total Knee Replacement Arthroplasty Under Subarachnoid Block: A Dose Response Study
9. Effect of fentanyl 2µg/kg on reducing induction dose of propofol at different time intervals.
10. Neuroendocrine stress response in robotic urological surgery: dexmedetomidine-based versus fentanyl-based total intravenous anaesthesia (Completed)
11. Safety and Efficacy of Low Dose Intrathecal morphine for Total Laparoscopic Hysterectomy.
12. Sonoanatomical analysis of right internal jugular vein and carotid artery at different levels of PEEP in anaesthetised paralysed patients
13. To assess the analgesic efficacy of Transversus Abdominis Plane (TAP) block with ropivacaine in adult patients undergoing open inguinal hernia repair under local anaesthetic infiltration.
14. To compare the efficacy of 0.25% bupivacaine alone or in combination with 50mcg/kg morphine administered via the caudal route for relief of postoperative pain in patients of ankylosing spondylitis undergoing total hip replacement surgery.
15. To compare the safety and efficacy of dexmedetomidine in laparoscopic tubal ligation with MTP done under local anaesthesia - a randomized controlled trial.
16. To evaluate effects of combination of intrathecal morphine and fentanyl with bupivacaine in unilateral total knee arthroplasty
17. To evaluate the efficacy of obturator nerve block in controlling the adductor muscle spasm during transurethral resection of bladder tumour involving lateral wall : Nerve stimulator versus ultrasound guided technique.
18. To study the safety and efficacy of dexmedetomidine in major arthroscopic knee surgery.
19. Optimum timing of LMA Proseal insertion after induction of anaesthesia with propofol in adults: a randomized time response study
20. Comparative evaluation of time for successful intravenous cannulation after sevoflurane induction in different pediatric age group
21. Comparison of performance and efficacy of air-Q intubating laryngeal airway and Ambu LMA in infant.
22. Comparison of performance and efficacy of air-Q intubating laryngeal airway and flexible laryngeal mask airway in anesthetised and paralysed infants and children
23. Comparison of the success of two techniques for the endotracheal intubation with C-Mac videolaryngoscope straight blade in paediatric patients: a randomized study
24. Effect of intrathecal morphine on peri operative endocrine stress response and analgesic requirement in patients undergoing laparoscopic hysterectomy
25. Efficacy and safety of dexmedetomidine in providing analgesia for patients undergoing tubal ligation under local anaesthesia
26. Efficacy of single-shot TAP in enhancing perioperative analgesia in patients undergoing inguinal hernia repair under local anaesthesia
27. Evaluation of minimum dose of atracurium in paediatric cataract
28. Optimum time of LMA Proseal removal in adults: comparison of three different MAC value of isoflurane
29. Comparison of novel medial oblique and classic short axis view for US guided internal jugular vein cannulation.

30. A comparative study to evaluate the effectiveness of video teaching program v/s mannequin demonstration on basic life support to the family members of patients at high risk of cardio pulmonary arrest
31. A Retrospective Analysis of Effect of Anaesthesia on Outcome Of In-Vitro Fertilization
32. Comparative study of total intravenous anaesthesia versus single shot spinal anaesthesia for unilateral total knee arthroplasty: a randomized control trial

Collaborative projects

Ongoing

1. Incidence and risk factors of back pain after cesarean section: A prospective observational study (Gynaecology and Obstetrics).
2. Comparison of outcomes in patients undergoing Single Incision Laparoscopic Surgery (SILS) versus conventional 4-port cholecystectomy (General Surgery).
3. Comparison of pain and hospital stay in patients undergoing open vs laparoscopic donor nephrectomy (General Surgery).
4. Comparison of testicular pain and chronic groin pain in open vs laparoscopic hernia repair. (General Surgery).
5. Comparison of long term outcomes and quality of life after laparoscopic incisional and ventral hernia repair with or without tackers (General Surgery).
6. Comparison of outcomes after laparoscopic incisional hernia repair using absorbable vs non absorbable sutures (General Surgery).
7. Evaluation of a Peri-Operative Low Dose Steroid Regimen for Steroid Treated Inflammatory Bowel Disease patients: A Prospective Randomised Study. (GI Surgery).
8. Low pressure Vs High Pressure Laparoscopic Cholecystectomy (General Surgery).

Completed

1. Peri-operative complications of obstructive sleep apnoea patients undergoing upper airway surgeries: A retrospective analysis. (Maxillo-Facial Surgery).
2. Assessment of the efficacy of laparoscopic approach for appendicectomy and orchiopexy across the pediatric age and size (quantitated as body surface area) spectrum (Paediatric Surgery).
3. Comparison of low pressure pneumoperitoneum vs conventional pressure pneumoperitoneum on arterial carbon dioxide in laparoscopic cholecystectomy (General Surgery).
4. Evaluation of minimum dose of neuromuscular blocking agent in paediatric cataract surgery: A randomized controlled trial (Ophthalmology).
5. To correlate reduction in pancreatic parenchyma following pancreaticoduodenectomy with risk of new-onset diabetes using multidetector row computed tomography imaging volumetry (GI Surgery and Liver transplantation).
6. Evaluation of minimum dose of neuromuscular blocking agent in paediatric cataract surgery-a randomized controlled trial (Ophthalmology).
7. Peri-operative management of pheochromocytoma and its effect on patient outcomes (Urology).

PUBLICATIONS

Journals: 76

Chapters in Books: 6

Books: 1

PATIENT CARE

Operation theatre

Department	Number of cases done under GA/MAC	Department	Number of cases done under GA/MAC
Dental Surgery	114	Maternity	2797
Emergency	4782	Ophthalmic	7548
ENT	1062	Orthopaedics	2898
General Surgery	3005	Paediatric Surgery	1643
GI Surgery	333	Pain	356
Gynecology	1055	Urology	1271
IVF	461		

Intensive care unit (AB8)

Event	Number	Event	Number
New Admissions	421	Discharged to ward	306
Deaths	84		

Peripheral calls attended by emergency duty team 1783

Peripheral Anaesthesia Services

Investigation	Number	Investigation	Number
MRI	327	MECT	351
CT Scan	725	Other radiological services (DSA)	99

Pain Clinic (OPD) 2702

PAC Clinic (OPD) 5636

Voluntary Community Services

Dr Maya Dehran provided OPD services in Dispensary at Bhatti Centre, Radha Swami Satsang Beas, New Delhi on all Sundays; provided first aid and critical care services till patients are shifted to tertiary care hospital during major public gathering for Satsang at Bhatti Centre, Radha Swami Satsang Beas, New Delhi for 12 days; provided first aid services in a special train going from Delhi to Beas.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor M.K. Arora was Expert committee member appointed by Secretary health and research/ Director General ICMR and DRDO for evaluating biomedical devices; Expert member for ICMR funded project committee & member review committee for the research papers submitted to ICMR.

Professor Ravinder Kumar Batra delivered the Dr VA Punnoose Oration at Annual Conference of India Society of Anaesthesiologists (Delhi Branch); Member of Curriculum Committee and Subject Expert of Life-Saving Anaesthesia Skills in Obstetrics, MOH, Govt. of India; Member, "Working Group Committee", National Board of Examinations; Member, Examination Ethics Committee, National Board of Examinations; Member, Thesis Review Committee, National Board of Examinations; Chairman, Formation of OSCE stations for Clinical Examination in Anaesthesiology National Board of Examinations; Member of Committee for "Qualitative assessment of answer sheets", National Board of Examinations; Member, Virtual Medical Classroom Teaching Group at AIIMS; Subject Expert and Member Curriculum Committee (Anaesthesiology), Ministry of Health, Govt. of India; Member & Co-ordinator, Speciality Board of Anaesthesiology, National Board of Examinations.

Professor Anjan Trikha was On the Editorial board of the Year Book of Anaesthesiology-5; Nominated member

of academic committee of Indian College of Anesthesiologist; Nominated as President of Association of Obstetric Anesthesia; Nominated as Chief Editor of Journal of Obstetric Anesthesia and Critical Care

Professor Ganga Prasad was Invited technical expert to Department of Anaesthesiology, Ram Manohar Lohia Hospital, PGIMER, New Delhi.

Professor Vimi Rewari was Editorial board member of the Journal of Obstetric Anaesthesia and Critical Care; Editorial board member of the Indian Journal of Clinical Anaesthesia; Member/Expert for National Consultation Meeting for NLEM (National List of Essential Medicines) 2011 revision

Dr Renu Sinha won AIIMS Excellence Research Award 2014: Commendation Certificate

Dr Ravindra Kumar Pandey was selected as Editor in chief for International journal of perioperative ultrasound and applied techniques (IJPUT); Two research papers selected under excellent abstract category in 2014 Combined AACA & ASURA conference at Auckland, New Zealand.

Dr Anjolie Chhabra was nominated executive member North Zone of the Academy of Regional Anaesthesia of India (AORA); Re-nominated on the Core Editorial team of the Trends in Anaesthesia and Critical Care, an Elsevier journal in Jan 2015.

Dr Chhavi Shawney was Member of National Curriculum Task force for various allied health services (Ministry of Health and Family Welfare)

Dr Dalim Kumar Baidya was Selected as National Editor of Chettinad Medical Journal; Selected as International Editor of Aperito Journal of Surgery and Anesthesia

Dr Preet Mohinder Singh was nominated as section editor for Journal of Anesthesiology and clinical pharmacology

9.2 Anatomy

Professor and Head

T.S. Roy

Professors

A. Shariff	Pushpa Dhar	S.B. Ray
Rima Dada	Arundhati Sharma (Genetics)	T.K. Das (Electron Microscopy)
Renu Dhingra		T.C. Nag (Electron Microscopy)

Additional Professors

Ritu Sehgal

Assistant Professors

Saroj Kaler	Tony George Jacob
Neerja Rani	Seema Singh

HIGHLIGHTS

AIIMS eLF the 'AIIMS eLearning Facility' has become functional after installation of new and powerful servers with Free & Open Source Software (FOSS) for Learning Management, High Definition Video Presentation & Conference systems and web hosting.

The website of the department of Anatomy is currently hosted and served from within the department itself with a hyperlink on the AIIMS website. Live online demonstrations of the "Blended Learning" facilities in Anatomy have been presented and highly appreciated at a monthly faculty meeting at AIIMS and also abroad at Padmashree Dr. D. Y. Patil Medical College, affiliated to the University of Technology, Mauritius. Now, many departments are conducting Cadaveric workshops and training programs in the department of Anatomy using the eLearning Facilities.

Regular online formative assessment of MBBS students is being carried out using this facility. Further, Journal Club presentations are also being organized using an offline as well as an online discussion forum. The department has started conducting PG Seminars in a collaborative Wiki format and has initiated activity of creation of video based Learning Resources by postgraduate students and senior residents in Anatomy. Further, seeing the efficacy and ease of facilitating medical education through electronic means, other departments at AIIMS are also interested in utilizing the back-end support of the AIIMS eLF for their academic activities.

The department has facilitated the organization of several cadaveric workshops for Neurosurgery, Orthopaedics, ENT, GI Surgery and General Surgery departments and helped in providing training. Several members have served as visiting faculty to different universities and institutes and have delivered guest and invited lectures both in India and abroad. Research work undertaken by faculty and students have been presented at various national and international fora. Several students have won awards for their work in the areas of gross anatomy, neurosciences, embryology and genetics. The faculty has been engaged in research with grants from the intra and extramural agencies and have noteworthy research publications in peer reviewed journals. They have also served as members of the editorial board of several national and international journals and have acted as reviewers for research projects from various intra and extra mural funding agencies. Service in the form of embalming facilities and patient care through diagnostic tests and counseling for various genetic and metabolic disorders have also been provided by the department.

Other achievements: Apart from Academics, one senior technician in the Department, who plays shooting ball has been adjudged the best player of India and has won several awards in various tournaments. He also won the first prize in poetry competition during the Hindi pakhwada.

EDUCATION

Innovative educational activity

The department introduced “Blended Learning” methods in anatomy to supplement the traditional face-to-face learning methods with eLearning, using the eLearning facilities established in the department. All the undergraduate and postgraduate students admitted are enrolled in the eLearning facility and provided secure user accounts. E-Learning resource materials in histology and gross anatomy were administered using the workstations in the microanatomy lab and the Dissection Hall. Online Formative Assessment tests were also administered securely to the MBBS students using the networked workstations in the microanatomy lab. Access to the eLearning facility is also provided to all the users using their own tablets/laptops/smart phones over a wi-fi network throughout the department of Anatomy. In-house facilities for production of eLearning resource materials in anatomy are under development.

In addition, the junior faculty members have been involved in articulating skeletons for teaching purposes, consolidation of lecture contents, production of short tutorial videos of dissected specimens and bones with the post-graduate students, contributed original teaching/learning resources for the e-learning facility and have conducted courses for post-graduate students in embalming and museum techniques in anatomy. They have assisted in the conduct of cadaveric workshops and have been adjunct/invited faculty at national universities and institutes.

Undergraduate, postgraduate, paramedical teaching

Many faculty members serve as Adjunct faculty at Jiwaji University, Gwalior for M.Sc. Neuroscience and Molecular Human genetics courses

CMEs/Workshops/Symposia/National and International Conferences

The department has helped in the conduct of several cadaveric workshops which has facilitated in the training of personnel from different departments.

1. Neurosurgery, 13th Neurosurgery Skills Training Workshop, 18th to 20th April, 2014
2. Students Union, Catalyst- Medical Exhibition, 26th to 27th April, 2014
3. GI Surgery, 8th IHPBA India Chapter Certificate Course in Hepato-Pancreato-Biliary Surgery, 13th-18th August, 2014
4. Neurosurgery, 14th Neurosurgery Skills Training Workshop, 22nd to 24th August, 2014
5. ENT, Hands-on Workshop on Laryngology, 17th October, 2014
6. Surgical Disciplines, Breast Course, 19th November, 2014
7. Neurosurgery, 15th Neurosurgery Skills Training Workshop, 21st to 23rd November, 2014
8. ENT, Cadaveric workshop on Facial Plastics and Rhinoplasty, 8th to 10th December, 2014
9. Orthopaedics, Cadaver Arthroplasty Course, 11th March, 2015
10. Orthopaedics, Computer Navigation Assisted Knee & Hip Arthroplasty Cadaver Course, 13th to 14th March, 2015
11. Anaesthesiology, Workshop on Ultrasound guided regional anaesthesia, 28th to 29th March, 2015
12. Surgical Disciplines, Breast Course (ABC), 29th and 30th March, 2015

Lectures delivered

T.S. Roy: 7

Pushpa Dhar: 1

Rima Dada: 12

Arundhati Sharma: 4

Renu Dhingra: 1

T.C. Nag: 3

Ritu Sehgal: 3

Saroj Kaler Jhajhria: 2

Oral papers/posters presented: 57

* Best paper award 5 **Travel award 3 ***Second prize (under best paper award) 1

****Won A.V. Trikha prize in Medical Gerontology

RESEARCH

Funded projects

Ongoing

1. Age related morphological and neurochemical changes in the human spiral ganglion, TS Roy, ICMR, 3 years, 2012-15, SRF
2. Age related morphological and neurochemical changes in the human spiral ganglion, TS Roy, AIIMS, 2 years, 2012-14, 13.5 lakhs
3. Experimental colonic diversion in new born rats, A. Shariff, AIIMS, One year, 2014-15, 4,50,000/-
4. Estrogen, menopause and the aging brain: An experimental approach to understand the menopausal effects in non-reproductive areas of brain and to assess the protective effects of estrogen and estrogen-like compounds as therapeutic intervention. Pushpa Dhar, ICMR, 3 years, 2012-15, Rs. 27 lakhs.
5. Local administration of cannabinoid receptor agonists at the surgical site relieves postoperative pain in rats, S B Ray, AIIMS, 2 years, 2013-2015, 8.5 Lakhs
6. Sperm Telomere length analysis and its correlation with oxidative stress and DNA damage in infertile men, Rima Dada, DBT, 3 years, 2012-2015, 55 lakhs
7. Analysis of Sperm DNA damage in fathers of children with non familial childhood cancer, Rima Dada, ICMR, 3 years, 2015-18, 36 lakhs
8. Mutation analysis of growth hormone deficiency in North Indian children, Dr Arundhati Sharma, ICMR, 3years, 2011-14, ICMR SRF
9. Genetic study of patients with refractory rickets and hypophosphatemia, Arundhati Sharma, ICMR, 3 years, 2015-18, ~30.0 Lakhs
10. Endoplasmic reticulum stress in pathogenesis of preeclampsia: an in vitro study, Renu Dhingra, AIIMS, 2 years, 2013-15, 10 lacs
11. Study on the effect of hydrogen sulfide on migration and invasion potential of trophoblast cells ICMR amount Rs 45 lacs, Renu Dhingra, ICMR, 3 years, 2014-17, 45 lacs
12. Morphological and biochemical changes in neonatal chick retina following exposure to variable photoperiods, TC Nag, SERB (DST), 3 years, 2013-16, 33 lacs
13. Expression patterns of iron regulatory proteins in rat retina with aging and in experimental iron overload, TC Nag, CSIR, 3 years, 2015-18, 22.8 lacs
14. Ultrastructural and immunohistochemical analysis of human choroidal vessels with normal aging, TC Nag, ICMR, 3 years, 2015-18, 16.4 lacs
15. The Expression of p75NTR and TrkA Receptors in Breast Cancer, R. Sehgal, IRG, 2 years, 2013-2015, 10 lakhs
16. A study on the involvement of specific neurotransmitters and neuropeptides at the spinal cord level in postoperative pain in rats. Saroj Kaler Jhajhria, IRG, One year, 2014-15, 5 lakhs

Completed

1. A stereological study of age related morphological and neurochemical changes in the human cochlear nucleus, TS Roy, ICMR, 3.5 years, 2010-2014, 29.28 lakhs
2. The effects of neonatal phototherapy on rat testis, A. Shariff, AIIMS, One year, 2013-14, 5 lakhs
3. Estrogen induced regulation of complement system in rat brain: An approach to understand neuroprotective and anti-inflammatory role of the hormone. Pushpa Dhar, ICMR, 2.8 years, 2012-15, Rs 57.91 lakhs
4. A study on the involvement of specific neurotransmitters and neuropeptides at the spinal cord level in postoperative pain in rats, S.B. Ray, Department of Biotechnology, 3 years, 2011-14, 80.1 Lakhs
5. Study to identify the genetic basis underlying Stevens–Johnson syndrome (SJS), Arundhati Sharma, ICMR, 3 Years, 2011-14, Rs 22 lakhs

6. A study on the genetic association and correlation of monoaminergic, GABAergic and glutaminergic pathway gene polymorphisms with brain imaging (PET/SPECT) in Alcohol dependence, Arundhati Sharma, ICMR, 3 years, 2011-14, Rs 29 lakhs
7. Molecular genetic analysis of Posterior polar cataract families, Arundhati Sharma, IRG, 3 years, 2011-14, Rs. 5.0 lakhs
8. Status of Histone acetyl transferase and SIRT 1 expression in a rat model of light-induced retinal damage, T.C. Nag, IRG, 2 years, 2013-15, Rs 7.5 lacs

Departmental projects

Ongoing

1. Development and aging of the human auditory system
2. Age changes in the human oculomotor, trochlear, abducent and cochlear nerve
3. Morphology of the fetal and adult human pancreatic duct system
4. Morphological study of innervation of ileocaecal junction in the human fetus
5. Effect of curcumin on mice basal forebrain structures following arsenic trioxide exposure
6. Effect of curcumin supplementation on CA-1 region of hippocampus in adult mice exposed to arsenic trioxide
7. Effect of curcumin on morphological and biochemical changes in cardiac tissue of adult mice chronically exposed to arsenic trioxide
8. N-methyl-D-aspartate receptor expression in spinal cords of rats following intraplantar carrageenan administration
9. Expression of calcitonin gene-related peptide and somatostatin in the rat trigeminal ganglion and dura mater
10. Study of involvement of specific neurotransmitters at spinal level in a rat model of postoperative pain
11. Role of bioactive molecules in postoperative in situ pain management in rats
12. Cytogenetic and Molecular evaluation in Premature Ovarian Failure
13. Paternal factors in embryonic development
14. Molecular analysis in Depression: A case control study
15. Telomere dynamics in male infertility
16. Genetic and Molecular basis of retinoblastoma
17. To study phenotype genotype correlation in patients with 5 alpha reductase 2 deficiency and androgen insensitivity
18. A study on the genetic association and correlation of Monoaminergic and GABAergic pathway gene polymorphisms with brain imaging (PET/SPECT) in Alcohol & Opioid Dependence
19. Epigenetic changes of Dopaminergic pathway genes and association of GRIN2A gene polymorphism in Alcohol Dependence
20. Genetic Study of Posterior Polar Cataract
21. Study of the association of *VEGF* and *sFlt-1* polymorphisms in Preeclampsia
22. Study to identify the genetic basis underlying Stevens–Johnson syndrome (SJS)
23. Study on the genotype-phenotype correlation in Asian Indian patients with growth hormone deficiency
24. Role of s-VEGFR in endoplasmic reticulum stress in preeclampsia
25. Effect of hypoxia on the expression of PPARs and angiogenic factors in trophoblast cells .
26. Effect of hydrogen sulfide on migration of human trophoblast cells and its status in preeclampsia
27. Role of microRNA-30 in cystathionine gamma lyase mediated trophoblast cell invasion and its status in preeclampsia.
28. A correlative study of fetomaternal hydrogen sulphide production with umbilical artery velocimetry in preeclampsia

29. Role of vascular endothelial growth factor receptor (VEGFR) in hydrogen sulphide mediated migration of human trophoblastic cell
30. Expression patterns of iron regulatory proteins in rat retina with aging and in experimental iron overload
31. An Anatomical and radiological study of the vascular supply of the mammary gland and the nipple-areola complex.
32. Expression of Somatostatin and Neuropeptide Y in Dorsal Root Ganglia of Rats following hind paw incision in rats.
33. Comparison of Histological Tumor Content in Human Gall Bladder Cancer with Quantitative Expression of Human Chorionic Gonadotropin and Receptor Interacting Protein-1
34. The Effect of tri methylamine n- oxide (TMAO) on Two Murine Models of Acute Pancreatitis
35. Quantitative estimation of total glial cells and neurons of left stellate ganglia in rat model of myocardial hypertrophy
36. Effect of Angiotensin Receptor Modulation in Rat Middle Cerebral Artery Occlusion:A Morphological and Biochemical Study
37. Role of Sperm Molecular Factors in Recurrent Pregnancy Loss
38. Effect of hydrogen sulphide on migration of human trophoblast cell and its status in preeclampsia
39. Role of vascular endothelial growth factor receptor in hydrogen sulphide mediated migration of trophoblastic cells
40. Morphological study of neurons in human fetal pancreas
41. A morphological study of the developing enteric nervous system in the human fetal colon
42. Morphological Study of innervation of ileocaecal junction in the Human Fetus

Completed

1. Age changes in the human cochlear nerves- light microscopic study
2. Effect of antioxidants on sodium arsenite induced neurotoxicity in the developing rat cerebellum.
3. Morphometric evaluation of Mandibular condyle using Cone Beam Computed Tomography.
4. Evaluation of rat testis following neonatal phototherapy using conventional method and Biliblanket
5. Role of neurokinin-1 receptor antagonist in attenuating morphine tolerance in rats
6. A study on the expression of selective neurotransmitters, neuropeptides and their receptors in the spinal cord and dorsal root ganglia during postoperative pain in rats
7. Seminal Oxidative stress and DNA damage in childhood cancer
8. Role of Sirtuin 1 in light-induced retinal damage on Swiss albino mice
9. Effect of Anti-Cytokine Therapy on Severity of Experimental Acute Pancreatitis in Rats, GI Surgery, Gastroenterology

Collaborative projects

Ongoing

1. Evaluation of development of neurosurgery skills by hands - on skills training and interactive virtual training modules (web based, tele-education and real time evaluation), AIIMS: Neurosurgery, Anatomy, Forensic Medicine, IIT-D: CSE
2. Neurosurgery Skills Training Facility with 3D Endoscopic and 3D Microscopic Facility and Central Repository Server for Archival, Streaming and Teleconferencing., AIIMS: Neurosurgery, Anatomy, Forensic Medicine IIT D: CSE
3. Development of 3D/stereoscopy based virtual reality simulation platform for endoscopic neurosurgery training and pre-operative neurosurgical planning, AIIMS: Neurosurgery, Anatomy, Forensic Medicine IIT-D: CSE
4. Experimental colonic diversion in new born rats, Paediatric Surgery

5. Retinoblastoma: Genetic and Molecular study, Dr RP Centre
6. Genotype and Phenotype correlation in POAG, Dr RP Centre
7. Oxidative stress in pathogenesis of PCG, Dr RP Centre
8. Genetic studies in fibromyalgia, Physiology
9. YKL40 levels in asthma, Biophysics
10. Levels of Oxidative stress biomarkers in Follicular fluid of women with PCOs undergoing IVF and its relation to outcome, Obstetrics and Gynaecology
11. Oxidative stress evaluation in amniotic fluid of couples with normal and couples pregnant with fetus with congenital malformation, Obstetrics and Gynaecology
12. Mutation analysis of seven genes (NR5A1, DAX1, DHH, DMRT1, SOX9, SRY, WT1) in patients with gonadal dysgenesis and 46, XY karyotype, Endocrinology
13. Effect of transcranial, magnetic stimulation on pain modulation status in fibromyalgia patients, Physiology
14. Study on the genotype-phenotype correlation in Asian Indian patients with growth hormone deficiency, Endocrinology, AIIMS
15. Congenital Adrenal hyperplasia–Psychological assessment, Endocrinology, AIIMS
16. MEN1 gene mutation in patients of primary hyperparathyroidism, pancreatic tumors and pituitary tumors and its clinical implications. Endocrinology, AIIMS
17. Evaluation of development of neurosurgery skills by hands–on skills training and interactive virtual training ICMR, Department of Neurosurgery
18. Expansion of DST + DBT Sponsored Neurosurgery Skills Training Facility and development of 3D Virtual Training Modules for Neurosurgery Skills Training, Department of Neurosurgery
19. Department of Science and Technology DST FIST Program DST FIST Level 2, Department of Neurosurgery
20. Feasibility study of a novel intraosseus access device for emergency vascular access along with department of cardiac radiology supported by Stanford India Biodesign in collaboration with IIT and Stanford university Funded by DBT, Department of Cardiology
21. The Expression of p75NTR and TrkA Receptors in Breast Cancer, Departments of Surgery & Pathology, AIIMS
22. Role of ER stress in the pathogenesis of cerulein induced acute pancreatitis in mice and the effect of chemical chaperones on the severity of acute pancreatitis, Gastroenterology, AIIMS, IGIB, School of Life Sciences, JNU

Completed

1. Expansion of DST + DBT Sponsored Neurosurgery Skills Training Facility and Development of Stereoscopic (3 Dimensional - 3D) Virtual Training Modules for Neurosurgery Skills Training, AIIMS: Neurosurgery, Anatomy, Forensic Medicine IIT-D: CSE
2. Effects of phototherapy on neonatal rat testis, Paediatric Surgery
3. Apoptotic evaluation of rat testis following neonatal phototherapy using conventional method and Biliblanket, Paediatric Surgery
4. Orchidopexy by various means in rats, Paediatric Surgery
5. Functional characterization of 4 novel mutations in CYP11B1 gene, Dr R P Centre
6. The role of semen oxidative stress and sperm
7. DNA damage in unexplained fetal congenital anomalies, Obstetrics and Gynaecology
8. To study the gene mutations in the patients with 46 XY DSD due to Gonadal Dysgenesis/Agnesis, Endocrinology
9. Study to identify the genetic basis underlying Stevens–Johnson syndrome (SJS), RPC
10. A study on the genetic association and correlation of Monoaminergic, GABAergic and Glutamnergic pathway gene polymorphisms with brain imaging (PET/SPECT) in Alcohol dependence, NDDTC

11. Molecular genetic analysis of Posterior polar cataract families, RPC
12. Functional development of the visual cortex following prenatal repetitive auditory stimulation in chicks (*Gallus domesticus*): role of noradrenaline, Department of Physiology
13. To study the bacterial adherence and tendency of bio-film formation of different bacteria to various bio-film materials, Department of Orthopedics

PUBLICATIONS

Journals: 45 Abstracts: 12

PATIENT CARE

Genetic diagnostic and counseling services

Karyotyping	508	Seminal ROS	669
Yqmicrodeletion analysis	103	Sperm DFI	72
Chromosome analysis		536	

Molecular screening

Corneal dystrophy	20	MEN2A syndrome	22
Miscellaneous cases	70		

Embalming of Dead Bodies 479

For transportation	457	For teaching/research	22
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Fluorosis Diagnostic Laboratory: Fluoride Estimation

Urine	58	Blood/serum	56
Drinking water	45		

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor T.S. Roy was nominated as a member of the executive Committee of Indian Academy of Neurosciences, 2014-15; was the paper setter and External Examiner for MD thesis at KGMC, Lucknow and MD University Rohtak, 2014-15. He was invited as external expert for the selection of faculty members MD University Rohtak. He continued to serve as Central Public Information Officer (CPIO) for disclosure under RTI for Anatomy Department. He is co-chairperson of the institute animal ethics committee. He is chairperson of the institute animal welfare committee. He was member of various other committees of AIIMS: MBBS curriculum committee, Intramural Research Review Committee. He continued to be a member of the editorial board of Pancreas. He reviewed neuroscience research projects and annual project reports for DBT, ICMR and DST. Prof. Roy was nominated as executive vice president of the Association of Gerontology, India. He was a coordinator and member of the Medical Council of India expert committee for evaluation of medical colleges in India. He was examiner and expert for postgraduate examination and faculty selection committee for various Indian Universities. He was member of the postgraduate Board of Studies in Anatomy, Pt. B. D. Sharma, University of Health Sciences, Rohtak. He reviewed manuscripts for the journals, Pancreas, National Medical Journal of India, Indian Journal of Medical Research, Journal of Anatomical Society of India and Neuroscience Letters. Was an expert for framing guidelines for cadaver and whole body donation/receipt of bodies/organs to medical institutes for the Government of Delhi (context of the Court order dated 30/04/2014 in the matter of WP (C) 2127 of 2014). Was involved in drafting revised guidelines for Safe Handling of Human Remains of Ebola Patients, Directorate General of Health Services, Ministry of Health & Family Welfare.

Professor A. Shariff was external examiner for the First Phase MBBS Examinations in 2014-15 at Padmashree Dr. D. Y. Patil Medical College under the University of Technology, Mauritius.

Professor S.B. Ray is a member of editorial board of World Journal of Anaesthesiology and a Jury member in National Conference of SYSCON-2014 held at AIIMS on 10th December, 2014

Professor Rima Dada and her students received three awards - Lalor Foundation award and two National Institute of Health awards at 37th Annual Meeting of American Congress of Andrology. Dr Dada and her student received two awards at the annual meeting of Anatomical Society of India at Imphal-Dr Lata N Mehta award and Dr H J Mehta Award. Dr Dada was invited as faculty to deliver 3 lectures and organise Genetics practical at

Jamia Hamdard Medical College. She chaired session at Syscon in National conference in biological sciences on 10th Dec 2014 and was also member of jury for selection of best paper for oral presentation. Dr Rima Dada and her student received the Best paper award at MDNIY National yoga Week 2015 at Morarji Desai National Institute of Yoga, second Best paper at Conference on Mind body medicine and evidence based update at AIIMS. She was a jury member for Medical Research Council fellowships, Edinburgh and for Royan International research awards in Reproductive Biomedicine and Stem cells, Iran. She reviewed projects submitted to DBT, ICMR, Indo US technology Forum and Wellcome Trust. Dr Rima Dada is on editorial board for Telomere and Telomerase, J of Paediatric Neurology and J of Paediatric Biochemistry, the Open Andrology Journal, International J of Medicine. She was nominated as member of American Society of Andrology and the Indian Society of Fertility. She is member of ICMR task force on male Infertility. She has evaluated three MD and 2 PhD theses in Genetics and was external examiner for PhD thesis at CDRI Lucknow. She was examiner for Genetics for BSc Genetics at Pt BD Sharma University of Rohtak. in August 2014, Member Core committee for AIIMS convocation, AIIMS institute day exhibition and cultural evening, and Anti ragging committee, Member of Institute Biosafety committee on Recombinant DNA research, Member Institute committee to look at improvement of standard of research activities in autonomous institutions. She was member of PG counselling and member of board for framing guidelines for PhD and PGs. Dr Dada was in core committee/reception committee for institute day and convocation and faculty in-charge students union elections. She is also member of curriculum committee. Dr Dada was invited for selection of Senior Residents at MAMC and LHMC. Dr Dada delivered three lectures and provided hands on training at workshop on Genetics at MAMC, New Delhi in October 2014. Dr Rima Dada is external faculty for medical genetics at GNDU, Amritsar; Rajakumari Amrit Kaur college of Nursing N Delhi, Jamia Hamdard Medical College New Delhi and Durgabhai Deshmukh College, N Delhi.

Dr Arundhati Sharma continues to serve as one of the experts of the Metabolism and Molecular Research society for mapping various genetic diseases prevalent in the northern part of India and to create a database of the common and rare mutations in this region. She also acted as an External examiner for PhD thesis of Molecular Human Genetics student of Jiwaji University, Gwalior, Osmania and JNTU Universities. She has reviewed several papers from National and International journals.. Her team's work on genetic basis of growth hormone deficiency and standardization of prenatal diagnosis won an award at the AIIMS SYSCON. She continues to be the External Faculty for Genetics at the Department of Molecular Human Genetics, Jiwaji University, Gwalior.

Dr Renu Dhingra was Technical advisor-Anatomy Musculoskeleton Ultrasound society. Member of editorial board of Journal 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, committee for rules for student conduct. Reviewed research papers submitted to International journal of plastination. Reviewed research project submitted to ICMR.

Dr T.C. Nag reviewed manuscripts from Cell Biology International and International Journal of Developmental Neuroscience.

Dr Ritu Sehgal participated as: reviewer on 15th December 2014 for the online review of the ICMR Short Term Studentship (STS) programme 2014 reports; member of the Annual Report Committee of the 58th AIIMS Annual Report, 59th Institute day Exhibition Sub-committees and of the Advisory Council of the AIIMS Student's Union Elections for the year 2013-14. She participated in overseas (Mauritius) and in-house (CMET) tele-conference presentations for the departmental e-learning facility. She served in the following capacities during the year under review: Deputy-in-charge of Microanatomy & Micro Techniques Laboratories; Central Assistant Public Information Officer (CAPIO) designated for Anatomy department under Right to Information Act, 2005; Departmental Counselor for the Student Mentorship Program; Teaching Co-ordinator for 1st trimester Jul-Oct, 2014; internal examiner for the BSc (MTR) course.

Dr Saroj Kaler Jhajharia attended and participated in several Workshops like Basic Statistical Methods & Hands on Data Analysis Training Program Using Stata Statistical Software from 16-19th July, 2014, Research methodology on 8-9th August, 2014, AIIMS ultrasound regional Anaesthesia from 28th-29th March, 2015, AIIMS, New Delhi. She is Member of Teaching schedule committee and the Institutional Anti-Ragging Squad. She also received a consolation prize in Hindi essay writing competition for Group A Officers organized by Hindi Section AIIMS during the Hindi Pakhwada (1st to 15th September, 2014).

Dr Tony George Jacob attended the AIIMS-University of Michigan research Methods Course at AIIMS, New Delhi from 01-05 December, 2014. He was a member of Selection Committee for Regular appointment of personnel

for the posts of Laboratory Technicians, Group B Statistical Assistant and Grade III Librarian. He is an External Examiner for Chaudhary Charan Singh University at ITS Centre for Dental Studies and Research, Ghaziabad for Annual Undergraduate University Examinations. He is a reviewer for Anatomical Sciences Education, Clinical Anatomy, BMC Gastroenterology, National Medical Journal of India and Journal of Anatomical Society of India. Dr Jacob is also an adjunct faculty for the M.Sc. Neurosciences Course at Jiwaji University, Gwalior. In addition, he was faculty for the AIIMS ultrasound regional anaesthesia workshop, 28-29 March 2015 and has organized attended workshops in research methodology for faculty with the Research Section at AIIMS. He also actively participated in the workshops on Electron Microscopy in Life Sciences (July, 2014), Writing a Scientific Paper (August, 2014), Road Map for Patents (September, 2014), Microteaching (September, 2014) and Workshop for designing OSPE and OSCE (November 2014). He is now a life member of the Association of Gerontology (India) and the Anatomical Society of India.

Dr Neerja Sirohi was faculty for AIIMS ultrasound regional anaesthesia workshop from 28th-29th March, 2015. She also attended the Basic Statistical Methods & Hands on Data Analysis Training Program Using Stata Statistical Software, 16-19 July 2014, Research methodology on 8-9th August 2014 and OSPE and OSCE at CMET on 13 Nov 2014 and, AIIMS, New Delhi.

Dr Seema Singh attended and participated in several Workshops like Basic Statistical Methods & Hands on Data Analysis Training Program Using Stata Statistical Software (16-19 July 2014), Research methodology (8-9 August 2014), OSPE and OSCE at CMET (13 Nov 2014), and Microteaching at CMET (31 October 2014). She was also faculty for the AIIMS ultrasound regional Anaesthesia workshop held from 28th-29th March 2015 at AIIMS.

VISITING SCIENTISTS

1. Dr Santosh K Mishra, Scientist at the National Institute of Dental and Craniofacial Research, NIH, Bethesda, USA. He delivered a talk on “Understanding neural circuits for pain and itch pathways” on 6-5-14
2. Late Prof. Dr. med. Moritz A. Konerding, university of Mainz Johannes Gutenberg Germany. He delivered two lectures on November 20th 2014 entitled:
 - a. Free Flow - Lifeline Blood Vessels” on the role of blood vessels in various states of disease - nice images for everybody
 - b. Differential patterns in VEGF-driven tumor and ocular neovascularization: possible implications for pharmacological targeting” - a bit more specialised on sprouting versus intussusceptive angiogenesis
3. Dr Sourav Banerjee, Associate Professor of National Brain Research Centre, Manesar, Haryana. Dynamic connections: regulatory control of synaptic plasticity by miRNAs on 28th November 2014

9.3 Biochemistry

Professor and Head

Neeta Singh (upto 30.11.2014)

D.N. Rao (from 1.12.2014)

Professors

Subrata Sinha (on deputation)

Nibhriti Das (upto 30.6.2014)

S.S. Chauhan

M.R. Rajeswari

P.P. Chattopadhyay

Kalpana Luthra

Alpana Sharma

Kunzang Chosdol

Assistant Professors

Sudip Sen

Archana Singh-I

Archana Singh-II

Jayanth Kumar P.

Subhradip Karmakar

HIGHLIGHTS

- 26 research projects funded by various national and international agencies such as DBT, DST, ICMR, CSIR, Indo-Canadian, DRDO and AIIMS (intramural) are ongoing in the department (funds: Rs. 9.6 crores) and 10 research projects (funds: Rs. 4 crores) were completed this year.
- Department is managing a prestigious ICMR project on cell towers and cell phone risk among users in and around Delhi.
- 27 departmental projects and 25 collaborative projects are ongoing in the department.
- 36 articles and 9 abstracts were published in indexed journals.
- 30 invited talks were delivered by the faculty and 31 research papers were presented by faculty/research students (oral/poster) at various scientific forums.
- Faculty and students received prizes for oral and poster presentations at various conferences.
- 1 book and 2 chapters were contributed by the faculty.
- 4 guest lecturers were delivered in the department by eminent scientists from abroad.
- The coursework for MD and MSc students has been extensively restructured to include topics encompassing the current advances in research.
- The department organized the World Immunology Day Symposium on 29th April, 2014 at AIIMS.

EDUCATION

Undergraduate

The department conducted UG teaching programmes which include MBBS (two semesters), Nursing (one semester) and B.Sc. (Hons) Nursing (one semester). New problem-based modules have been incorporated for small group discussions to facilitate self-directed and contextual learning of biochemical concepts. Two UG students received short term training.

Postgraduate

These include 9 M.Sc. and 12 MD students. The department also had 29 Ph.D. students. There are three DST, DBT and ICMR women scientists working as post doctoral students.

The coursework for the postgraduate students (MD & MSc) has been extensively restructured to include topics encompassing current advances in research. This course includes the following modules: proteomics, molecular biology & genetics, immunology, cell biology & signaling, stem cell biology, systems biology & bioinformatics and

quality control. A new 'Critical Analysis of Research Paper' section has been included at the end of each module to help students understand and critically analyze the methodology and biology of scientific articles.

Five Postgraduates (MD & MSc) from BPKIHS, Dharan, Nepal received research training for four weeks in the department. Ten postgraduate students received training in various techniques of molecular biology and immunology.

Conference Organized

- World Immunology Day Symposium on 29th April, 2014 at AIIMS under the auspices of Indian Immunology Society.

CMEs/Workshops/Symposia/National and International Conference

Lectures delivered

D.N. Rao: 7 S.S. Chauhan: 2 M.R. Rajeswari: 7 Kalpana Luthra: 4
Alpana Sharma: 3 Kunzang Chosdol: 3 Sudip Sen: 2 Archana Singh: 1

Oral papers/posters presented: 35 * Oral or poster presentation awards: 7

RESEARCH

Funded projects

Ongoing

1. Evaluation of immunological prothrombotic/pro-inflammatory alteration in antiphospholipid antibody mediated recurrent miscarriage in women & role of coenzyme Q10 in its modulation, DN Rao, ICMR, 2015-2017, Rs. 20 lakhs.
2. To evaluate the role of CD4 TCR α in polar forms of leprosy, DN Rao, ICMR, 2015-2017, Rs. 19 lakhs
3. Developing peptide based immunogen using E1, E2, E3 and capsid proteins of chickungunya virus using nanoparticles as delivery vehicles, DN Rao, DST, 2013-2016, Rs. 26 lakhs
4. Development of cancer prognostic test for prediction of aggressive disease on breast cancer patients Neeta Singh, Indo-Canada, 2013–2015, Rs. 40 lakhs.
5. A Study on clinical significance of PTEN regulated genes in human primary glioblastoma, SS Chauhan, DBT, 2013-2016, Rs. 47 lakhs.
6. Plasma circulating mitochondrial DNA in the assessment of Friedreich's ataxia (FA), MR Rajeswari, ICMR, 2013–2016, Rs. 35 lakhs.
7. Genomic analysis of triplet (GAA) repeat expansion-associated neurodegenerative disorder, Friedreich's ataxia, MR Rajeswari, DBT, 2014 -2017, Rs. 64 lakhs.
8. Identification of neutralizing antibody epitopes on Indian and South African HIV-1 subtype C viruses for HIV vaccine design, Kalpana Luthra, DST, 2011-2015, Rs. 86 lakhs
9. Functional characterization of dendritic cells in HIV-1 Infection, Kalpana Luthra, DST, 2012-2015, Rs. 37 lakhs.
10. Evolution of the HIV-1 clade C envelope in chronically infected Indian pediatric patients, Kalpana Luthra, DBT, 2012-2015, Rs. 1.02 crore.
11. Immune network in the pathogenesis of pediatric HIV-1 infection, Kalpana Luthra, DBT, 2012-2015, Rs. 80 lakhs.
12. Relations of leucocyte membrane complement regulatory proteins, MBL and MASP2 with the pathophysiology and severity of coronary artery disease, Kalpana Luthra, ICMR, 2015-2018, Rs. 44 lakhs.
13. Generation and characterization of human recombinant single chain variant fragments (scFv) against envelope glycoprotein of subtype-C HIV-1 from pediatric patients, Kalpana Luthra, ICMR, 2015-2018, Rs. 28 lakhs.
14. Generation and characterization of HIV-1 primary isolates from paediatric patients for their neutralization susceptibility to broadly neutralizing antibodies, Kalpana Luthra, AIIMS, 2014-2016, Rs. 5 lakhs.

15. Study of α T cells and its scavenger receptor (SCART) in the pathogenesis of autoimmune skin disorder: pemphigus vulgaris, Alpana Sharma, DBT, 2011-2014, Rs. 45 lakhs.
16. Study of T_H17 and Treg lymphocytes in the pathogenesis of pemphigus vulgaris, Alpana Sharma, CSIR, 2012-2015, Rs. 28 lakhs.
17. Molecular and proteomic profiling of HAS in transitional cell carcinoma, Alpana Sharma, ICMR, 2012-2015, Rs. 30 lakhs.
18. Study of dendritic cells in pathogenesis of pemphigus vulgaris, Alpana Sharma, AIIMS, 2014-2016, Rs. 10 lakhs.
19. To analyze the link between cancer and inflammation by studying the interaction between *FAT1* and Cyclooxygenase 2 (*COX2*) at the level of signal transduction, cell growth properties and expression of inflammatory modulators, Kunzang Chosdol, DST, 2011-2014, Rs. 20 lakhs.
20. Hypoxia and notch signaling in glioblastoma: implications for an adverse phenotype, Kunzang Chosdol, DBT, 2011-2014, Rs. 48 lakhs.
21. Effect of FAT1 on tumor suppressor signaling pathway [Salvador-Wart-Hippo (SWH) pathway] in glioma, Kunzang Chosdol, AIIMS, 2014-2016, Rs. 10 lakhs.
22. Integrative investigation on critical transcriptional modules involved in proliferation of malignant cells, Sudip Sen (AIIMS, Delhi) and Dr. Biplab Bose (IITG), DBT, 2012-2015, Rs. 27 lakhs.
23. Analysis of the expression of mucins in human oral mucosal epithelial cells (OMEC) on using Mycophenolate mofetil (MMF) in vitro, Sudip Sen AIIMS, 2014-2015, Rs. 4 lakhs
24. Assessment of mitochondrial DNA copy number in pediatric cases of acute lymphoblastic leukemia. Archana Singh, AIIMS, 2013-2015, Rs. 7 lakhs.
25. To construct tetravalent antigenic peptide (TAP) specific to B and T cell epitope from envelope and NSI proteins of dengue virus (DENV-H) and their evaluation for diagnostic and vaccine potential, Reeta Rai, DST (Women Scientist), 2014-2017, Rs. 24 lakhs
26. To identify B and T cell epitopes and study their humoral and cell mediated immune response of peptides derived from envelope proteins of chikungunya virus (Chik V), Santwana Pradhan, DBT Women Bio Care, 2013-2015, Rs. 16 lakhs.

Completed

1. Screening of diagnostics and neutralizing antibodies (IgM/IgG) using a panel of peptides derived from envelope E1, E2, E3 proteins of Chikungunya virus, DN Rao, CSIR, 2011-2014, Rs. 24 lakhs.
2. To evaluate the FoxP3 mediated immune suppression mechanism via chromatin remodeling during the disease progression (from tuberculoid to lepromatous leprosy), DN Rao, ICMR, 2012-2014 Rs. 24 lakhs
3. To clone and express E1, E2 and E3 envelope proteins of Chikungunya virus and synthesize peptide spanning these sequences to identify B & T cell epitope to develop subunit vaccine for chikungunya virus, DN Rao, DRDO, 2011-2014, Rs. 36 lakhs.
4. Effect of non-ionizing electromagnetic field (EMS) of human health, DN Rao, ICMR, 2010-2015, Rs.1 Crore.
5. Phase III clinical trial with an intranasal injectable male contraceptive – RISUG, DN Rao ICMR, 2008-2015, Rs.10 lakhs.
6. Effects of non-ionizing electromagnetic field (EMF) on hematological and biochemical parameters of normal male and female human volunteer (part of ICMR Cell Phone Task Force Study), DN Rao, ICMR, 2012-2015, Rs.50 lakhs.
7. Translating head and neck cancer markers into diagnostic assays, SS Chauhan, DBT, 2011-2014, Rs. 79 lakhs
8. Promoter mediated tumor cell targeting by siRNA mediated gene silencing promoter mediated tumor cell targeting by siRNA mediated gene silencing, P Chattopadhyay, DBT, 2010-2014, Rs. 34 lakhs.
9. Characterization of genetic diversity and neutralization antibody response in HIV-1 infected Indian children, Kalpana Luthra, ICMR, 2011-2014, Rs. 29 lakhs.

10. Study of circulatory levels of fibulin-1 and nidogen (extracellular matrix proteins) in multiplemyeloma. Alpana Sharma, AIIMS, 2011-2013, Rs. 3 lakhs.

Departmental projects

Ongoing

1. T cell mediated immunity in leprosy
2. Evaluation of immunological alterations in recurrent miscarriage and role coenzyme Q10 in its modulation
3. To study the role of estrogen in trauma hemorrhagic shock patients
4. Identification and immunological characterization of epitopes on the envelope E1, E2, E3 and capsid of chikungunya virus.
5. Role of immune-clinical and pro and anti-inflammatory cytokine gene polymorphism correlation with recovery in patients with post traumatic shock.
6. Biological and clinical significance of cathepsin L and B expression in pediatric acute myeloid leukemia
7. Regulation of cathepsin L and B by hepatotoxic agent
8. Expression of cysteine proteases in human gall bladder carcinoma
9. Elucidation of molecular mechanism of differential expression of cathepsin B in breast cancer cells with different metastatic potential.
10. Isolation and characterization of human anti HIV-1 monoclonal antibodies from infected children
11. Study of expression of complement receptors and regulators on dendritic cells of HIV-1 infected antiretroviral naïve and treated individuals
12. Study of hyaluronic acid signaling cascade in urothelial carcinoma
13. Expression of cytokines and transcription factor of Th17 cells in patients of transitional cell carcinoma of the bladder
14. Study of small-leucine rich proteoglycans in transitional carcinoma of urinary bladder
15. Study of telomerase activity and shelterin complex and its associated factors in multiple myeloma
16. Study of dendritic cells in pemphigus vulgaris
17. Study of RASSF genes and their signaling in bladder cancer
18. Regulation of FAT1 gene expression in glioma
19. Signaling interactions between FAT1, p53 and HIF1a in glioma
20. To study the gene expression in GBM cell lines under different degrees of hypoxia and the role of p53 in HIF1 regulation under severe hypoxic condition
21. To study the functional interaction of HIF1a and notch receptor in glioma
22. Hypoxia and response to chemotherapy: A study in glial tumor cell lines
23. FAT1 and p53 on chemo-sensitivity of glioma
24. Comparison of EMT/MET markers with stemness in colon carcinoma cell lines and human bone marrow derived mesenchymal stem cells
25. Isolation, identification and characterization of cancer stem cells from different histopathological grades of colorectal carcinoma
26. Association between cancer cell differentiation and tumor microenvironment in human colorectal carcinoma
27. Analysis of mitochondrial DNA copy number in paediatric acute myeloid leukemia and its correlation with minimal residual disease (An exploratory study)
28. Study on HDL functionality in acute coronary syndrome (ACS) patients on statin therapy
29. Exploring the role of adipose tissue ABCA1 in determining serum HDL cholesterol levels
30. To study the expression of nitric oxide and inducible nitric oxide synthase (iNOS) and their correlation with iNOS gene polymorphic variants in tuberculosis patients and controls
31. Study of vitamin D receptor (VDR) and cathelicidin expression and their correlation with Fok I polymorphism in tuberculosis

32. To identify the extracellular signals leading to modulation of TET2 enzyme activity and alter the 5hmC (hydroxymethyl cytosine) content during erythroid differentiation

Completed

1. Pentavalent antigenic peptide (PAP) based approach towards diagnosis of dengue infection
2. Clinical significance of hnRNP, PTEN, EB1 and S100A2 proteins in oral carcinogenesis
3. FAT1 and inflammation related pathways in glioma
4. Single nucleotide polymorphism (SNPs) of folate metabolizing enzymes and their association with brain tumors
5. Functional interaction of FAT1 and COX2 in glioma cell line.
6. Molecular characterization and osteoblastic differentiation of human bone marrow derived mesenchymal stem cells
7. Analysis of gene expression in colorectal cancer stem cells
8. Analysis of the expression of mucins and angiogenesis markers in human oral mucosal epithelial cells (OMEC) on using mycophenolate mofetil (MMF) and bevacizumab (BVCZ) in vitro
9. Evaluation of mitochondrial DNA copy number for possible prognostic value in childhood acute lymphoblastic leukemia

Collaborative projects

Ongoing

1. A study of epigenetics of breast cancer by evaluation of tissue site-specific promoter DNA methylation profiles in breast cancer (Department of Surgery)
2. Expression of Reg-4 and MUC-4 in patients with carcinoma of pancreas (Department of Gastroenterology)
3. Effect of antioxidant supplementation on pancreatic function and markers of fibrosis in chronic pancreatic: A randomized placebo controlled double blind trial (Department of Gastroenterology)
4. Impact of transcriptional gene silencing of HIV1C on ectoenzymes and negative co-stimulatory molecules expressed by T cell substrates: relevance to chronic immune-activation in HIV in HIV infections (Department of Transplant Immunology and Immunogenetics)
5. Design and testing of orthodontic miniscrews embedded with sensors to detect inflammation (Department of Biomedical Engineering)
6. Development of diagnostic panel of blood biomarkers for acute ischemic stroke (Department of Neurology)
7. HMGB1 proteins in periimplantitis around temporary anchorage device (TAD) (Centre for Dental Sciences and Research)
8. Development of diagnostic panel of blood biomarkers for acute ischemic stroke (Department of Neurology)
9. A comparative evaluation of levels of interleukin-1- α in GCF during canine distraction and canine retraction (Centre for Dental Sciences and Research)
10. Effect of hypoxia on the expression of peroxisome proliferator activated receptors (PPARS) and angiogenic factors in trophoblasts cells- an in vitro study (Department of Anatomy)
11. Molecular biology of early immature T-cell acute lymphoblastic leukaemia (T-ALL) (BRAIRCH)
12. Role of hydrogen sulphide on migration of human trophoblast cells (Department of Anatomy)
13. Development of nanocarrier for targeted therapy of rheumatoid arthritis (Department of Pathology)
14. Role of Ets-a and T helper cytokines in the pathogenesis and disease progression in patients with sarcoidosis (Department of Pulmonary Medicine)
15. Role of micro RNA 30 in cystathionine gamma lyase mediated trophoblast cell invasion and its status in preeclampsia (Department of Anatomy)
16. Determination of catecholamines and their metabolites in vitiligo patients undergoing melanocyte transplantation (Department of Dermatology & Venereology)

17. Elucidating Foxp3 expression and Foxp3 promoter methylation level in active non-segmental vitiligo (Department of Dermatology & Venereology)
18. Role of T helper cytokines in skin autoimmune disorder pemphigus vulgaris (Department of Dermatology & Venereology)
19. Study of microRNAs in renal cell carcinoma (Department of Urology)
20. Epithelial-mesenchymal transition (EMT) in carcinoma of the eyelid - An immunohistochemical and molecular study (Dr. R.P. Centre)
21. Integrative investigation on critical transcriptional modules involved in proliferation of malignant cells (Department of Biotechnology, IIT, Guwahati)
22. Indigenous and traditional foods for promoting food and nutrition security: An enquiry into the possible contribution of bio diversity with emphasis on dietary diversity through consumption of indigenous/wild crops in the tribal communities of Jharkhand (Indian Institute of Public Health, Delhi)
23. A retrospective cohort study of the impact of air pollutants on birth outcomes in an urban community of New Delhi (Indian Institute of Public Health, Delhi)
24. Diagnostic potential of circulating biomarkers in extrapulmonary tuberculosis. (Department of Microbiology)
25. Identification of a “novel” chemokine receptor, “CXCR4 positive subpopulation” in the erythroid lineage and their role as a reserve pool of progenitor cells during erythroid crisis (Department of Hematology Oncology, BRAIRCH)

Completed

1. Isolation and molecular characterization of human bone marrow derived mesenchymal stem cells (Department of Orthopaedics)
2. Study on role of intensive physiotherapy and TMS on growth factors as biomarkers for stroke recovery (Department of Neurology)

PUBLICATIONS

Journals: 36 Abstracts: 9 Chapters in Books: 2 Books: 1

PATIENT CARE

Total tumour marker tests: 2323

PSA: 103 samples CA 19.9: 877 samples CEA: 1343 samples

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor D.N. Rao is a recipient of distinguished Alumni Professional Achievement Award in Biotechnology for the year 2014 by NIT, Warangal, Dr. Sohail Ahmad Oration by Indian Academy of Biomedical Sciences 2015, Dr. Pran Nath Chutani Oration Award by National Academy of Medical Science 2014 and Dr. YS Narayan Rao Oration Award by ICMR, 2014. He served as the Vice President of FIMSA (2012-2016) and President of Indian Immunology Society (2014-2016). He is a member of Ethics Committees of various institutions in Delhi; SAC and project review committees of various extramural funding agencies; and selection committees of various ICMR, CSIR and several medical colleges and universities. He is a peer reviewer for various national and international journals; and evaluator for PhD and MSc theses for various universities and medical colleges.

Professor Neeta Singh is a recipient of Awadhesh Saran Memorial Oration Award by ACBICON-2014 and is the President of the Indian Association for Cancer Research (2014-16)

Professor S.S. Chauhan is a member of the Biosafety committee of VP Chest Institute, Delhi University.

Professor M.R. Rajeswari was elected Vice-President, DNA Society of India; is a member of ICMR Project Review Committee for Neurochemistry, and Expert Committee for technical evaluation and sanction of national and international fellowships for Department of Health Research, Ministry of Health (DHR), Standing Committee of the National Mission on Education, Ministry of Human Resource Development; and expert mentor for DST-

INSPIRE (Innovation of Science Pursuit for Inspired Research) programme. She is a member of the Executive Council for Society For Neurochemistry, India.

Professor Kalpana Luthra is a member of ICMR Project Advisory Committee for Urology and was a judge for oral presentation by young scientists on Indian Immunology Day (29th April, 2014). She served as a subject expert on selection committee for recruitment of teaching faculty and JRF. She is an examiner for MBBS and BSc Nursing examinations at various universities and is a peer reviewer for PLoS One, Indian Journal of Pediatrics, and IJMR. She chaired sessions at the 7th Annual Meeting of the Cytometry Society, 15th Indo-US Clinical Cytometry Workshop at IRCH, and SYS Con-2014.

Professor Alpna Sharma is a member of Project Review Committee for R&D Twinning Program for NE region (DBT) and Short Term Studentship (ICMR) and the National Academy of Sciences. She served as the Treasurer of Indian Immunology Society (2014-16) and Secretary General of the Indian Academy of Biomedical Sciences (2014-16). She organised the Symposium on Immunology Day on 29th April 2014 at AIIMS, New Delhi. She is an examiner for PhD thesis, MD (Biochemistry) and MBBS examinations at various universities. She chaired sessions at the following conferences: Reproductive Health Awareness at Jaipur, Indian Academy of Biomedical Sciences National Conference at Hyderabad, Annual Conference of Indian Immunology Society at Madurai and SYS Conference at AIIMS, New Delhi.

Professor Kunzang Chosdol registered a patent (WO/2014/181314) for *Placental like Alkaline Phosphatase Promoter Mediated Cell Targeting* and received the ISNO President's Award for the Best Clinician Researcher in Basic Neuro-Oncology (2014). She served as the Treasurer for Indian Association for Cancer Research (2014-2016). She is a DBT Nominated Expert to review 'Unit of Excellence' projects and 'Pilot projects for Young Investigators', a member of the selection committee for Assistant Professor/s at Lady Harding Medical College, and evaluator/examiner for PhD/MPhil research work progress at IGIB, Delhi University, PhD, MD and MSc thesis and MBBS examination of various universities. She is a peer reviewer for manuscripts for the Nature Publishing group (NPG) and Indian Journal of Clinical Biochemistry; and she was invited for the Indo-US Provocative Question Workshop (Cancer Research) organized jointly by DBT and National Cancer Institute.

Dr Sudip Sen received poster merit award for "Best 5 abstracts in Translational Regenerative Medicine submitted from India" out of top 20 abstracts from India and USA, at International Health Science Innovation Conference held at Mumbai, India (15th - 17th January, 2015).

VISITING SCIENTIST

1. Dr Devra Davis, Founder and President Health Trust, USA on 'Risk of cancer and health damage from electromagnetic field radiations' (13th October 2014).
2. Dr. Ashok Sharma, University of Nebraska Medical Centre, USA on 'Epigenetic activation and oncogenic functions of POTE genes in human epithelial ovarian cancer' (21st November, 2014).
3. Dr Kamal Kamboj and Dr Balada-Llasat, Department of Microbacteriology and Mycology Clinic, University Hospital, Columbus, Ohio, USA on 'Demographic fungi and TB diagnosis' (18th March, 2015).

9.4 Biomedical Engineering

Emeritus Professor
Sneh Anand

Professor and Head
Veena Koul

Professor
Harpal Singh
Associate Professor
Nivedita K. Gohil

S.M.K. Rahman Anup Singh	Assistant Professors Sandeep Kumar Jha Neetu Singh	Dinesh Kalyanasundaram Amit Mehndiratta
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HIGHLIGHTS

The department was established in 1971 as a Joint venture of AIIMS & Indian Institute of Technology, Delhi. The Department (also known as CBME, Centre for Biomedical Engineering at IIT Delhi) now has a strength of ten faculty members. The Centre has applied engineering principles to address medical and biological problems. The department has collaborative projects with major institutes and hospitals in India aimed at dissemination of knowledge and development of techniques, tools and methods for diagnosis, treatment, follow-up of treatment responses, and drug delivery. The faculty members of the department are pursuing research in the following priority areas: biomaterials, bioinstrumentation, biomechanics, and medical imaging. Last year witnessed the reorganization of research facilities / laboratories and creation of the following new laboratories: Common Chemistry Laboratory (Wet Lab), Biosensors and Lab-on-a-chip Laboratory, Animal Cell and Microbial Cell Culture Facility, Medical Image Processing Laboratory, and Prototyping Laboratory. The department also participated in postgraduate, undergraduate, and Pre-Ph.D. courses relevant to biomedical engineering at IIT Delhi. The CBME also initiated two seminar series last year: Distinguished faculty seminar series and Student seminar series. The department received 7 new grants (totalling Rs. 3.65 crores); patented two and transferred another technology; published 26 international publications; produced 5 PhD students and developed 7 new courses. The faculty members received 4 awards during this period. The department also organized two conferences/workshops.

New courses offered by our department in last year were:

Course code	Course Name	Credits	Developed by
BMV700	Biomechanical Design of Medical Devices	1-0-0	Dinesh K
BML750	Point of Care Medical Diagnostic Devices	3-0-0	Sandeep K. Jha
BML770	Fundamentals of Biomechanics	3-0-0	Dinesh K.
BML735	Biomedical Signal and Image Processing	2-0-2	Anup Singh & Amit Mehndiratta
BML720	Medical Imaging	3-0-0	Anup Singh & Amit Mehndiratta
BML736	Mathematics for Biomedical Engineers	1-0-0	Anup Singh
BML790	Modern Medicine: An Engineering Perspective	1-0-0	Amit Mehndiratta

EDUCATION

Short courses:

Dr Amit Mehndiratta conducted a workshop for research scholars at IIT Delhi on 'Manage Your Scientific Literature using Freeware Mendeley Desktop.'

Workshop/Symposia organized

1. Panel Discussion on Orthopedics: Current & Future Trends. Convener: Dinesh Kalyanasundaram, October 30, 2014, IIT Delhi.

Lectures delivered

Veena Koul: 1

Nivedita K. Gohil: 1

Anup Singh: 3

Oral/posters presented: 12

RESEARCH

Patents filed:

1. Koul V, Lale SV, Kumar A. *Dual functionalized redox sensitive biodegradable polymeric nanosystem for targeted drug delivery in cancer therapeutics*; Indian patent application number: 365/DEL/2015.
2. Koul V, Kumar A, Lale SV, Choudhary V. *Dual targeted redox sensitive biodegradable amphiphilicmultiblockcopolymericnanocarrier for cancer therapeutics*; Indian patent application number: 366/DEL/2015.

Funded projects

Completed

1. Multidisciplinary approach to combat cancer by targeted drug delivery using intelligent nano-particles, Prof. Veena Koul, DBT, 2015, 55 lakh.

Ongoing/approved projects

1. Mathematical modeling and analysis of medical images using soft computing, Sneh Anand, DBT, Rs. 53.2 lakhs.
2. Development of Low-cost versatile endoscopic equipment system for neurosurgery (ventricular, intra-cranial and skull-base surgery), Sneh Anand, DST, Rs. 32.1 lakhs.
3. Monitoring cognition of healthcare workers in emergency & intensive care setting & its relation to medical error, Sneh Anand, ICMR, Rs. 29.4 lakhs.
4. Quantification and qualification of breast cancer images using frame motion modeling using ultrasound elastography, Sneh Anand, ICMR, Rs. 47.5 lakhs.
5. Development and evaluation of hybrid nanocomposite matrices for topical haemostasis, Veena Koul, LSRB, Rs. 25 lakhs.
6. Development of hybrid polymeric nanosystems for combinatorial targeted delivery of siRNA and drug in breast cancer therapy, Veena Koul, DBT, Rs. 44.3 lakhs.
7. Development of polymeric hybrid scaffold by electrospinning and their evaluation in vitro for cell differentiation, Veena Koul, CSIR, Rs. 6 lakhs.
8. Transcutaneous nanohybrid therapeutics for inflammatory disorder; acne, Veena Koul, ICMR, Rs. 48 lakhs.
9. Development of biopolymer-superparamagnetic nanoparticle hybrid systems for mri detection of liver and lymph node malignancies, Veena Koul, ICMR, Rs. 75 lakhs.
10. Designer biodegradable copolymers from renewable resources: Evaluation of properties and applications, Harpal Singh, DBT, Rs. 88 lakhs.

11. Development of polymeric films for absorption of blood biological fluids, Harpal Singh, DRDO, Rs. 12 lakhs.
12. Development of novel polymer based formulation for decorporation of heavy metals using approved chelating agents, Harpal Singh, DST, Rs.20.1 lakhs.
13. Development of iron oxide based nanotheranostics for cancer diagnostics and therapy, Harpal Singh, DBT, Rs. 25 Lakh
14. Capillary electrophoresis amperometric detector microchip for in-situ product monitoring in bioreactors, Sandeep K. Jha, DBT, Rs. 69.6 lakhs.
15. Structure activity relationship in design of biologically relevant nanostructures, Neetu Singh, DST, Rs. 55 lakhs.
16. Novel materials for sensing cellular biomarkers in 3D, Neetu Singh, DBT, Rs. 45 lakhs.

PUBLICATIONS

Journals: 25 Abstracts: 1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

- Dr Amit Mehndiratta received the 2015 EK Zavoisky Award of the International Society for Magnetic Resonance in Medicine (ISMRM), Toronto, Canada.
- Dr Anup Singh received the 2015 E.K Zavoisky Award by International Society for Magnetic Resonance in Medicine (ISMRM), Toronto, Canada.
- Dr Neetu Singh received the Innovative Young Biotechnologist Award by DBT

VISITING SCIENTISTS

1. Prof. Naren Vyavahare, Hunter Endowed Chair and Professor, Department of Bioengineering, Clemson University, South Carolina, USA.
2. Prof. Vishwesh Kulkarni, Department of Electrical Engineering, University of Warwick (Coventry, U.K.).
3. Dr. Gerard Draeger, Institute of Organic Chemistry and Center of Biomolecular Drug Research (BMWZ), Leibniz University Hannover, Germany.

9.5 Biophysics

INSA Senior Scientist

T.P. Singh

Professor and Head

Punit Kaur

Professors

A. Srinivasan

Savita Yadav

Sujata Sharma

Additional Professors

Krishna Dalal

Assistant Professors

Sharmishtha Dey

G. Hariprasad Rao

Ethayathulla A.S.

Scientists

S. Baskar Singh

Asha Bhushan

HIGHLIGHTS

During the period under report, the Department of Biophysics had over 16 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), Govt. of India. In the past one year, faculty and scientists had 30 research publications in various peer reviewed journals. The Department continued providing postgraduate education and short and long term training to M.Sc., Ph.D. and M.D. students. The faculty members and scientists were invited for lectures and seminars all over the country and delivered 44 lectures.

EDUCATION

Postgraduate

The faculty and scientists of the Department of Biophysics continued to teach and guide students for Ph.D., M.Sc. (Biophysics) and M.D. (Biophysics) degrees. The postgraduate teaching includes theory classes, hands-on practical classes and a dissertation projects.

Short- and Long-term Training

The Department also imparted long- and short-term training to M.Sc. and M.Tech. students from different institutes and universities.

Lectures delivered

T.P. Singh: 15

Punit Kaur: 7

Savita Yadav: 4

Krishna Dalal: 5

Sharmistha Dey: 2

Hariprasad G.: 8

A.S. Ethayathulla: 4

Oral papers/posters presented: 39

*Best Paper/Poster Award: 2

RESEARCH

Funded projects

Ongoing

1. Structural studies of peptidoglycan recognition proteins (PRPs), peptidyl tRNA-hydrolase, dihydrodipicolinate synthase (DHDPS), dihydrodipicolinate reductase (DHDPR) and phospholipase A2, TP Singh, Indian National Science Academy, 5 years, 2014-19, Rs. 25 lakhs.

2. Fund for improvement of S&T infrastructure in universities & higher educational institutions, Punit Kaur, DST, 5 years, 2012-17, Rs. 3.23 crores.
3. 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, 2 years, 2014-16, Rs. 32 lakhs.
4. Bio-medical informatics facility at AIIMS, Punit Kaur, ICMR, 5 years, 2013-18, Rs. 1 crore.
5. Sperm proteomics: differential protein expression in normal and non-motile spermatozoa - possible causes and markers, A Srinivasan, ICMR, 3 years, 2013-16, Rs. 20.5 lakhs.
6. Diversity of shell proteins from mollusks along Parangipettai coast (East coast of India), A. Srinivasan, Ministry of Environment and Forests, 3 years, 2012-15, Rs. 34.3 lakhs.
7. Screening of *citrullus lanatus* proteome to isolate and purify anti-fungal proteins: a step towards formulation of bio-fungicides to aid reduction of environment pollution, Savita Yadav, Ministry of Environment & Forests, 3 years, 2012-15, Rs. 20.7 lakhs.
8. HE4: A potential multifaceted role in human reproduction, Savita Yadav, DST, 3 years, 2012-15, Rs. 28.87 lakhs.
9. Human serum albumin-prolactin inducible protein (HSA-PIP) complex in seminal plasma: Role in fertility infertility, Savita Yadav, ICMR, 3 years, 2012-15, Rs.44 lakhs
10. Infertility in crossbred bulls: Search for spermatogenic cell markers for early prediction of fertility, Savita Yadav, ICMR, 4 years, 2012-16, Rs. 96 lakhs
11. Three-dimensional structure determination of methionionine aminopeptidase (MeTAP) from a multidrug resistant pathogenic bacteria, *acinetobacter baumannii*, Sujata Sharma, DBT, 3 years, 2012-15, Rs. 9 lakhs.
12. Structure and function of C-terminal half (C-lobe) of lactoferrin and its application as an agent to reduce NSAID-induced gastropathy, Sujata Sharma. DBT, 2011-2014, Rs. 41 lakhs.
13. In search of anti-allergenic drugs: determination of molecular structure-function interrelationships of plant allergens and structure-based design of anti-allergenic ligands, Sujata Sharma, ICMR, 3 years, 2011-14.
14. Design of specific peptide activator of Sirtuin as potential therapeutic targets for mild cognitive impairment (MCI) and Alzheimer's disease (AD), Sharmistha Dey, ICMR, 3 years, 2015-18, Rs. 20 lakhs.
15. Potential anti-oxidant effect of selected Ayurvedic herbs in Parkinson and Alzheimer's disease, Sharmistha Dey, AYUSH, 3 years, 2015-18, Rs. 20 lakhs.
16. Comparative proteomic analysis of ovarian cancer tissue to understand the protein profile of responders and non-responders to first line chemotherapy, Hariprasad G, DST, 3 years, 2013-16, Rs. 33.10 lakhs.
17. Studies on gamma synuclein as a potential tumour marker and drug target for breast cancer patients, S Baskar Singh, AIIMS, 2 years, 2014-16, Rs. 10 lakhs

Completed

1. Rational structure-based development of anti-viral protease inhibitors: *In Silico* and experimental drug design against dengue non structural protein 3, Punit Kaur, ICMR, 3 years, 2011-14, Rs. 20 lakhs.
2. Protein interactions of Alzheimer's peptide: picking those relevant to pathogenesis, A Srinivasan, ICMR, 3 years, 2011-14, Rs. 28.2 lakhs
3. Development of p38 mitogen activated protein kinase as a biomarker in oral cancer, Sharmistha Dey, ICMR, 3 years, 2011-14, Rs. 20 lakhs.
4. Frailty in old age: development of sirtuin as protein marker for diagnosis, Sharmistha Dey, AIIMS, 2 years, 2011-14, Rs. 9 lakhs.
5. Comparative proteomic analysis of ovarian cancer tissue to understand the protein profile of responders and non-responders to first line chemotherapy, Hariprasad G, AIIMS, 2 years, 2013-15, Rs.5 lakhs.

Departmental projects

Ongoing

1. Molecular analysis and biophysical characterization of proteins from the bacterial peptidoglycan pathway

2. Development of antimicrobial molecules against the drug resistant proteins from *S. Typhi*
3. Structural characterization of the Mur proteins
4. Genome Analysis and Target Identification against *S. Typhi*
5. Significance of NFKB1 and NFKB1A in progression of HNSCC in Indian population
6. Development of a protein marker for Parkinson disease and design of peptide inhibitor for the same
7. Design, synthesis and assessment of antimicrobial peptides against antibiotic resistant pathogens
8. 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
9. Role of sestrin in neurodegenerative diseases and its therapeutic implication
10. Cloning, expression and purification of Tau protein

Completed

1. Evaluation the role of sirtuin protein in age related diseases and development of its activator and inhibitor
2. Purification, characterization and evaluation of biological activity of medicinal protein from plant sources
3. Technique of molecular biology

Collaborative projects

Ongoing

1. Identification of novel targets and development of inhibitors against *S. typhi*, Department of Microbiology
2. Investigation of anti-cancer activities of some selected plants and their molecular target on human oral cancer cell line, Department of Biotechnology
3. Evaluation of novel intracellular proteins in serum as marker of ageing, Department of Geriatric Medicine
4. Cancer in older Indians: Development of an instrument for comprehensive functional assessment and a biomarker, Department of Geriatric Medicine

PUBLICATIONS

Journals: 50

Abstracts: 1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor T.P. Singh was awarded the Lifelong Distinguished Professor Award by University of Mysore.

Professor Punit Kaur serves on the Board of Editors of Nature: Scientific Reports; and is a member of ICMR Expert Committee on Drug Resistance in Leprosy. She organized the Indo-US bilateral conference-cum-workshop 'Big Data Analysis and Translation in Disease Biology (Big Data and Disease)' at AIIMS, New Delhi (January 18-22, 2015) and the conference entitled 'Bioinformatics in Drug Discovery' (February 3-6, 2015).

Professor Savita Yadav received the AIIMS research excellence award (Third Prize) and was a chairperson in SYSCON-2014, World Immunology Day 2014, and 'Recent Advances in Structure Biology & Drug Discovery-2014' conferences.

Dr Sharmistha Dey received the AIIMS research excellence award.

Dr Hariprasad G received the KPS-PS Krishnan Award by Association of Clinical Biochemists of India.

VISITING SCIENTISTS

1. Prof. R.M. Kini, National University of Singapore, Singapore
2. Prof. Prakash Chandra, University of Frankfurt, Germany
3. Dr. Sridhar Hannehalli, University of Maryland, USA
4. Dr. Sudhakaran Prabhakaran, Harvard Medical School, USA

9.6 Biostatistics

Professor and Head

R.M. Pandey

Professors

S.N. Dwivedi

V. Sreenivas

Assistant Professor

Maroof Ahmad Khan

Scientist

M. Kalaivani

HIGHLIGHTS

The department has more than 100 ongoing research projects, mostly collaborative in nature; and 26 completed collaborative research projects with various centres/departments in the Institute. Faculty members and scientists of the department served on various administrative and scientific committees in the Institute; as members of various scientific committees of the ICMR, DBT, DST, AYUSH and on Data Safety Monitoring Boards (DSMB) of several national and international clinical trials; delivered more than thirty invited lectures during various workshops on 'research methodology and biostatistics;' and, were examiners to various universities in the country. In the last one year, faculty and scientists had eighty-five research publications in various peer reviewed medical journals. Faculty members and scientists also served as reviewers for many national and international biomedical journals.

EDUCATION

The department continued teaching 'Biostatistics and Essentials of Research Methods' for the undergraduate, paramedical and postgraduate courses, viz. M.B.B.S., B.Sc. (Hons.) in Medical Technology in Radiology, M. Biotech, B.Sc. & M.Sc. Nursing, and M.D. Community Medicine. On request, faculty members delivered series of lectures for the residents and Ph.D. students and participated in departmental scientific presentations in several departments in the Institute. Besides guiding Ph.D. students in the department, faculty members and scientists contributed to the academic activities of other departments in the Institute as Co-guides and Doctoral Committee members of Ph.D., D.M., M.Ch., M.D./ M.S., students.

CMEs/Workshops/Symposia/National and International Conferences

- 4-days workshop on 'Hands-on Training in using STATA' for recently recruited faculty members, AIIMS (Coordinator: RM Pandey).
- 5-days workshop on 'Research Methodology, Writing and Communication,' for the postgraduate students, AIIMS (Coordinator: RM Pandey).

Lectures delivered

R.M. Pandey: 9

S.N. Dwivedi: 9

V. Sreenivas: 12

M. Kalaivani: 7

Oral papers/posters presented: 7

* Best paper Award: 1

RESEARCH

Funded projects

Ongoing

1. Diabetes liver disease embrace: A cross-sectional multi-centric study to explore the effect of diabetes on short-term outcome of acute and chronic liver disease, V. Sreenivas, Bristol Myers Squibb Foundation through West Bengal Liver Foundation, 3 years, 2014-17, Rs. 10 lakhs.

Completed

1. Prevalence of systemic hypertension among sea level natives posted / dwelling at high altitude, R.M. Pandey, DIPAS-DRDO, 1 year, 2013-14, Rs. 7 lakhs.

Departmental projects

Ongoing

1. A study on appropriate statistical models to determine in-hospital mortality and outcome at 6 months in head injured trauma patients
2. A study on appropriate statistical models to determine quality of life and mortality in head injured trauma patients
3. Comparative appraisal of data collection methods and related epidemiological models for smoking, drinking and tobacco chewing among adolescent children in India
4. Comparison of statistical models for recurrent exacerbation and long term control of asthma in children in northern india
5. Multilevel modeling to identify the factors associated with the neonatal mortality in India
6. Neo-adjuvant chemotherapy in treatment of breast cancer: systematic review & meta analysis and comparison of survival/ hazard models with & without competing risk
7. Pattern and associated factors of lymph node involvement and local recurrence among oral cancer patients: biostatistical considerations

Collaborative projects

Ongoing

1. A comparative study of immunohistochemistry antigen mapping with immunofluorescence mapping in the diagnosis of inherited epidermolysis bullosa, Department of Dermatology.
2. A comparative study to assess the efficacy, viability and composition of various cell populations of extracted hair follicle outer root sheath cell suspensions (EFF ORS CS) prepared using a single enzyme (trypsin) and multiple enzymes (trypsin, collagenase and dispase) for transplantation in vitiligo, Department of Dermatology.
3. A pilot study on the effect of alprazolam in spasticity, Department of PMR.
4. A prospective double-blind, randomized, placebo-controlled trial to determine the effect of vitamin D supplementation on the development of active tuberculosis and pneumonia in HIV-infected individuals, Department of Medicine.
5. A prospective study of stem cell yield with G-CSF mobilization and factors predictive of poor mobilization in patients admitted for Auto-HSCT at IRCH, AIIMS, Department of Medical Oncology.
6. A randomized control study to evaluate the efficacy of srambler therapy in the management of oncological pain in cancer patients, Department of IRCH.
7. A randomized controlled trial (RCT) of early versus late surgery in childhood intractable epilepsy, Department of Neurology.
8. A randomized double blind controlled trial to investigate the effects of vitamin D supplementation on maternal and new-born baby's vitamin D status in Asian-Indian subjects, Department of Endocrinology.
9. A randomized open labeled comparative study of safety and efficacy of metformin and subcutaneous insulin in Asian women with gestational diabetes, Department of Obstetrics & Gynecology.
10. A study of clinical, epidemiological and environmental risk factors associated with fragility hip fractures in elderly Asian Indians, aged e"60 years, Department of Endocrinology.
11. A study on alternate antimicrobial agents against typhoidal salmonellae, Department of Microbiology.
12. 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, Department of Surgical Disciplines.
13. Age related changes in the human inferior colliculus: A morphological and neurochemical study, Department of Anatomy.

14. Age related morphological and neurochemical changes in the human spiral ganglion, Department of Anatomy.
15. AIIMS-ERASMUS cohort study 'a population based prospective cohort study to unravel the causes of stroke and cognitive decline: A cross-cultural perspective,' Department of Neurology & Erasmus, Rotterdam, the Netherlands.
16. Analysis of a computerized prospective database of patients with early breast cancer, Department of Surgical Oncology.
17. Analysis of putative virulence factors and molecular typing of clinical isolates of vancomycin and high-level gentamicin resistant *enterococcus faecium* and *enterococcus faecalis*, Department of Microbiology.
18. Anti-inflammatory strategy in the treatment of pulmonary artery hypertension: an experimental study, Department of Pharmacology.
19. Assessment of liver fibrosis in patients with chronic liver disease using transient elastography, shear wave elastography and serum biochemical markers, Department of Gastroenterology.
20. Assessment of therapeutic response of radiolabeled anti CD20 antibodies 131-iodine rituximab /90 in Delhi and adjoining area, Department of Microbiology.
21. 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), Department of Pediatrics.
22. Biomarkers in peripheral arterial disease, Department of Surgical Disciplines.
23. Biostatistical aspects of prognostic factors including molecular parameters in breast cancer patients: an epidemiological appraisal, Department of Radiotherapy.
24. Cancer in older Indians: development of an instrument for comprehensive functional assessment and a novel protein marker, Department of Geriatric Medicine.
25. Center for Advanced Research in Newborn Health, Department of Pediatrics.
26. Circulating inflammatory biomarkers as predictor of HIV-tuberculosis associated immune reconstitution inflammatory syndrome (IRIS), Department of Medicine.
27. Circulatory T-regulatory cells in pediatric non-hodgkins lymphoma patients, Department of Medical Oncology.
28. Clinical and biological significance of mutations in mitochondrial DNA regulatory region in acute myeloid leukemia, Department of Medical Oncology.
29. Clinical and biological significance of mutations in mitochondrial DNA, Department of Medical Oncology.
30. Clinical, biochemical, hormonal familial characteristics and FTO gene variation in women with PCOS, with and without family history of type-2 diabetes mellitus, Department of Endocrinology.
31. Clinicopathological correlation with outcome in lupus nephritis, Department of Medicine.
32. Comparative drug susceptibility test in M.TB by solid culture method and line probe assay in MDR TB patients, Department of Medicine.
33. Comparison of clinical efficacy and safety of PUVAsol and Unani medicine (UNIM401 (IF) oral & UNIM 403 (oil for local application and UVA) in treatment of chronic plaque psoriasis, Department of Dermatology & Venereology.
34. Designing and validation of evidence based questionnaire in English and Hindi for a population based cohort study in India, Department of Neurology.
35. Detection of minimal residual disease (MRD) in B-cell lineage acute lymphoblastic leukemia by flow cytometry at end of induction, Department of Pediatrics.
36. Development of a diagnostic panel of blood markers in the diagnosis and prognostication of acute ischemic stroke, Department of Neurology.
37. Development of a molecular diagnostic probe for detection of cryptosporidium spp. and further characterization of the parasite in patients, Department of Microbiology.
38. Development of neonatal healthcare service delivery model for rural India, Centre for Community Medicine.

39. Diagnosis of legionella pneumophila infection by molecular methods and analysis of clinical and environmental isolates of legionella pneumophila using molecular markers, Department of Microbiology.
40. Diagnostic performance of distortion product and transient evoked otoacoustic emissions for newborn hearing screening, Department of Pediatrics.
41. Disease related biomarkers in patients with obstructive sleep apnea using proteomics approach, Department of Medicine.
42. Dosimetric studies in radionuclide therapy of neuroendocrine tumors with ¹⁷⁷Lu DOTA- TATE, Department of Nuclear Medicine.
43. Dosimetric study in children and young adults with differentiated thyroid cancer undergoing radioiodine (¹³¹I-Na) therapy, Department of Nuclear Medicine.
44. Dynamic MRI in evaluating upper airway in obstructive sleep apnoea syndrome, Department of Radio Diagnosis, AIIMS.
45. Dynamics of differential T-regulatory cell expression in patients with inflammatory bowel disease and intestinal tuberculosis, Department of Gastroenterology.
46. Economic evaluation of influenza immunization of under five children in India, Centre for Community Medicine.
47. Effect of continuous positive airway pressure (CPAP) on biomarker in patients with obstructive sleep apnea, Department of Medicine.
48. Effect of exercise on C-reactive protein level in obese patients, Department of PMR.
49. Effect of magnetic field on behavioural, electrophysiological and neurochemical correlates of pain in rats exposed to 3G frequency band, Department of Physiology.
50. Effect of nalbuphine on opiate withdrawal in rats: behavioral, biochemical and molecular study, Department of Psychiatry.
51. Effect of vitamin D supplementation on the bone mineral homeostasis in children with congenital ichthyosis, Department of Dermatology.
52. Effectiveness of occupational therapy for older people with dementia and their caregivers, Department of Geriatrics.
53. Epidemiological study of diabetic retinopathy in north India, Department of Community Ophthalmology.
54. Epidemiological study of respiratory pathogens in acute respiratory tract infections among children and elderly in India, Centre for Community Medicine.
55. Evaluation of neck masses using diffusion weighted MR imaging and ultrasound elastography, Department of Radio-Diagnosis.
56. Evaluation of novel intracellular proteins in serum as marker of aging, Department of Geriatric Medicine.
57. Evaluation of plasma circulating nucleic acids and in-vitro analysis of triplex binding proteins in relevance with the pathogenesis of Friedreich ataxia, Department of Biochemistry.
58. Evaluation of subjective stress, family burden and quality of life and the impact of psycho-dermatological intervention among primary caregivers of children with congenital ichthyosis, Department of Dermatology.
59. Evaluation of vascular functions, baroreflex sensitivity and angiogenic factors during the course of pregnancy in women with preeclampsia, Department of Physiology.
60. Expression analysis of potential microRNA in tuberculosis, Department of Medicine.
61. Genetic and clinical factors associated with aspirin resistance in Indian patients with ischemic stroke, Department of Neurology.
62. Genomic diversity of HLA in Indian population, Department of Transplant Immunology.
63. Identification of biomarkers in Parkinson's disease using NMR, Department of NMR.
64. Immunohistochemical detection of altered protein expression in microscopic preneoplastic mucosal lesions of colon, Department of Pathology.

65. Impact of a package of intensive smoking-cessation interventions versus recommended, basic smoking-cessation advice on outcomes in smear-positive patients with pulmonary tuberculosis; a randomised controlled trial, Department of Medicine.
66. Impact of total sleep time on neurocognitive performance and behavioral patterns among school going adolescents, Department of Psychiatry.
67. Incidence of colorectal carcinoma in ulcerative colitis, Department of Gastroenterology.
68. Incidence of ovarian failure with cyclophosphamide therapy in females <40 years, Department of Medicine.
69. Influence of complete spinal cord injury on ventromedial hypothalamic functions: role of magnetic field, Department of Physiology.
70. Intensive adverse drug reaction (ADR) monitoring and analysis of pattern of observed ADRs in Medicine and Nephrology wards at All India Institute of Medical Sciences, Department of Pharmacology.
71. Intestinal parasitic co-infections in patients with HIV/ AIDS and its effect on CD4 count, viral load, and antiretroviral drug resistance, Department of Microbiology.
72. Investigating the association between differentiation and tumor microenvironment in human colorectal cancer, Department of Biochemistry, AIIMS.
73. Investigation of role of transcranial magnetic stimulation in Parkinson's disease, Department of Neurology.
74. Low dose chemotherapy (metronomic therapy) versus best supportive care in progressive and/or refractory pediatric malignancies: a double blind placebo controlled randomized study, Department of Medical Oncology.
75. Magnetic resonance imaging evaluation of adult traumatic brachial plexus injury, Department of Radio-Diagnosis.
76. Magnetic resonance spectroscopic imaging (MRSI) and diffusion weighted MRI (DW-MRI) in the non invasive detection, assessment of treatment response and tumor metabolism in breast cancer, Department of NMR.
77. 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, Department of Microbiology.
78. Molecular Analysis of epidermolysis bullosa, Department of Dermatology.
79. Molecular characterization of clinical isolates of vancomycin and high level gentamicin resistant *enterococcus faecium* and *enterococcus faecalis*, Department of Microbiology.
80. Molecular characterization of isolates of invasive and commensal streptococcus pneumonia, Department of Microbiology.
81. Molecular characterization of neisseria gonorrhoeae strains with decreased susceptibility to extended spectrum cephalosporins, Department of Microbiology.
82. Molecular characterization of Neisseria meningitides isolated from cases of acute bacterial meningitides in Delhi and adjoining area, Department of Microbiology.
83. Neuro-psychological and neurobiological basis of bilingual developmental dyslexia, studies pre and post therapy by cognitive behavior and functional magnetic resonance imaging (fMRI), Department of NMR.
84. Neuroregeneration following implantation of iron oxide nanoparticle along with magnetic field exposures in spinal cord injuries, Department of Physiology.
85. Optimization of sentinel lymph node biopsy and evaluation techniques in breast cancer in Indian settings, Department of Pediatric Surgery.
86. Outcome and prognostic factors of osteo-sarcoma patients treated at IRCH, Department of Medical Oncology.
87. Pediatric hodgkin lymphoma – biology and outcome, Department of Medical Oncology.
88. Predictors of response in lupus nephritis, Department of Medicine.
89. Prevalence of chlamydia trachomatis in patients with infertility and urogenital infections and genotyping by PCR-restriction fragment length polymorphism and OMPA sequencing, Department of Microbiology.
90. Prevalence of X/MDR-TB (extensively/multi-drug resistant tuberculosis) in Delhi state by using LJ (Lowenstein Jensen) media method, Department of Medicine.

91. Profiling of drug resistant pattern in pulmonary TB cases in Delhi state using liquid culture MGIT-960, Department of Medicine.
92. Proteomic study of tuberculosis pleural effusion to identify potential biomarker(s) for early and definitive diagnosis of tuberculosis, Department of Medicine.
93. Quantitative EEG correlates of cognitive deficits and stress reactivity in mild cognitive impairment in Alzheimer's disease, Department of Physiology.
94. Quantitative EEG correlates of emotion induced changes in cognitive performance in healthy volunteers, Department of Physiology.
95. Quantitative estimation of aluminium & zink using ICP-AES from fatal phosphide poisoning, Department of Forensic Medicine.
96. Quantitative real time PCR and genotyping for cytomegalovirus in ulcerative colitis, Department of Microbiology.
97. Randomized controlled trial of trans-arterial chemoembolization (TACE) versus TACE plus oral chemotherapy in the treatment of unresectable hepatocellular carcinoma, Department of Gastroenterology.
98. Randomized controlled trial of trans-arterial chemotherapy (TAC) versus oral chemotherapy in the treatment of unresectable hepatocellular carcinoma, Department of Gastroenterology.
99. Rapid diagnosis of neonatal sepsis with special reference to molecular typing of klebsiella pneumonia, Department of Microbiology.
100. Rapid diagnosis of scrub typhus by molecular methods, Department of Microbiology.
101. Role of CD56CD16+CD3⁻ natural killer cells in HIV infected Indian individuals, Department of Microbiology.
102. Role of contrast enhanced CT abdomen in decision making in elderly patients presenting to the emergency department with acute undifferentiated abdominal pain, Department of Emergency Medicine.
103. Role of contrast enhanced ultrasound in the diagnosis of hepatocellular cocarcinoma in patients of cirrhosis, Department of Gastroenterology.
104. Role of dual energy CT in assessment of renal calculi, Department of Radio-Diagnosis.
105. Role of fluoride toxicity on renal pathogenesis in childhood nephrotic syndrome: an ultra structural, biochemical and proteomic study, Department of Anatomy.
106. Role of gain in fat mass in early infancy on programming of adiposity and biochemical markers associated with cardio metabolic risk, Department of Pediatrics.
107. Role of hydrogen sulphide on migration of human trophoblast cells, Department of Anatomy.
108. Role of micro RNA 30 in cystathionine gamma lyase mediated trophoblast cell invasion and its status in preeclampsia, Department of Anatomy.
109. Role of perfusion CT in evaluation of non-small cell lung carcinoma in patients undergoing chemotherapy, Department of Radio-Diagnosis.
110. Role of soluble vascular endothelial growth factor receptor-1 (sVEGFR-1/sFLT-1) on endoplasmic reticulum stress in preeclampsia- an in vitro study, Department of Anatomy.
111. Role of various magnetic resonance imaging and spectroscopic methods in the evaluation of prostate cancer, Department of NMR.
112. Sensitivity analysis and its application in large scale health survey, Biostatistics & Health Informatics, SGPGIMS, Lucknow.
113. 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, Department of Nuclear Medicine.
114. Stochastic models for graft rejection in renal transplant, Biostatistics & Health Informatics, SGPGIMS, Lucknow.
115. Study of cognition and quality of life in chronic intractable epilepsy using functional magnetic resonance imaging (fMRI), Department of Neurology.

116. Study of involvement of specific neuropeptides at spinal level in the rat model of post operative pain, Department of Anatomy.
117. Study of muscle regeneration in elderly: development of a mice model, Department of Geriatric Medicine.
118. Study of orthostatic hypotension in older Indians, Department of Geriatric Medicine.
119. Study of population genetics of clinical strains of pneumocystis jirovecci and its clinical epidemiological correlation, Department of Microbiology.
120. Study of potential modulator targeting pathways involved in the hyperphosphorylation of tau in Alzheimer disease, Department of Biophysics.
121. Study of the prevalence and pattern of periodic limb movements of sleep in patients with spinal cord lesions and their correlation with clinical profiles, Department of Neurosurgery.
122. Study of TSPO enhanced PET scan in evaluation of cognitive impairment in older adults, Department of Geriatric Medicine.
123. Study on awareness and health-seeking practices about common eye conditions in urban slums of Delhi, Department of Community Ophthalmology.
124. Study on cytogenetic toxicity of low dose 131-I therapy in hyperthyroid patients by using micronuclei assay, Department of Nuclear Medicine.
125. Study to evaluate bench training on the operative performance of general surgery residents, Department of Surgery, AIIMS.
126. To study the biological and clinical significance of Wnt/B- Catenin signaling pathway in AML patients, Department of Medical Oncology.
127. Understanding the BRB transponder functions and evaluation of aptamers in the experimental model of uveitis, Department of Ocular Pharmacology.
128. Validation of Hindi Version of ESS, Department of Medicine.

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, Department of Endocrinology.
2. A retrospective analysis of effect of anaesthesia on outcome of in-vitro fertilization, Department of Anesthesiology.
3. A study of health and functionality of the oldest old in a tertiary health care setting, Department of Geriatric Medicine.
4. A study on identification of risk groups for probability of surgery in children with PUJ-type hydronephrosis, Department of Pediatric Surgery.
5. Ambulatory blood pressure monitoring in patients with obstructive sleep apnoea, Department of Medicine.
6. Analysis of gene expression in colorectal cancer stem cells, Department of Biochemistry.
7. Assessment of biomarkers of frailty in ageing population, Department of Geriatric Medicine.
8. Biomarkers in severe dengue fever, Department of Medicine.
9. Clinical and microbiological characteristics of bacteremia caused by coagulase negative staphylococci in a tertiary care hospital, Department of Microbiology.
10. Comparison of Ara-c 12 g/m² vs 18 g/m² per cycle for cycles each as consolidation in acute myeloid leukemia: an open label randomized non-inferiority Study, Department of Medical Oncology, IRCH.
11. Contribution of sunlight exposure towards Vitamin D synthesis in children during time duration and body surface area in summer in north India, Department of Dermatology.
12. Correlation of serum levels of 25(OH) D with skin color (melanin index), Department of Dermatology.
13. Detection of minimal residual disease in acute myeloid leukemia by multicolor flow-cytometry – A pilot study, Department of Medical Oncology.

14. Effect of antiepileptic drug (AED) holiday in the epilepsy monitoring unit (EMU) on subsequent seizure frequency after reinstating in medically refractory epilepsy patients – A prospective observational controlled study, Department of Neurology.
15. Effect of hypoxia on the expression of peroxisome proliferator activated receptors (PPARs) and angiogenic factors in trophoblast cells - an invitro study, Department of Anatomy.
16. Evaluation of diagnostic scoring systems in patients with suspected acute appendicitis, Department of Emergency Medicine.
17. Evaluation of sirtuins as bio-markers of Parkinson's disease: A cross sectional comparative study, Department of Medicine.
18. Feasibility, patient acceptability & efficacy of follow-up of stable epilepsy patients by phone – A randomized controlled study, Department of Neurology.
19. Functional status and co-morbidities of older patients with cancer, Department of Geriatric Medicine.
20. Gene deletions and mutations in Wilm's tumour: correlation with histopathology and outcome, Department of Pathology.
21. Genomic and proteomic analysis of SCF/C-Kit gene in a pediatric neoplasm, neuroblastoma, Department of Pediatric Surgery.
22. Incidence of ovarian failure with cyclophosphamide therapy in females <40 years, Department of Medicine.
23. Magnetic resonance (MR) multi-parametric approach to the study of breast cancer and its correlation with biological markers, Department of NMR.
24. Management of ART induced dislipidemia with statins in HIV AIDS, Department of Medicine.
25. Performance analysis of newly developed point of care hemoglobinometer, Department of Hematology & IIT.
26. Prediction of bronchopulmonary dysplasia in very preterm neonates born at a tertiary care centre, Department of Pediatrics.
27. Prevalence of electrolyte imbalances in the intensive care unit (ICU) and their impact on clinical outcomes, Department of Medicine.
28. Randomized controlled trial of oral chemotherapy versus supportive therapy in the treatment of unresectable patients of hepatocellular carcinoma, Department of Gastroenterology.
29. Randomized Controlled trial on safety and efficacy of daily, part daily and thrice weekly intermittent anti tuberculosis therapy in HIV sero positive patients with tuberculosis, Department of Medicine.
30. Randomized trial of systemic steroids (prednisolone) and propranolol in the treatment of infantile hemangioma, Department of Dermatology.
31. Sleep quality in pregnancy and its relationship with pregnancy outcomes, Department of Medicine.
32. To study the changes in predictors of difficult intubation during pregnancy, Department of Anesthesiology.
33. Utility of positron emission tomography and high resolution computer tomography chest in the assessment of disease activity of ILD in patients with connective tissue diseases, Department of Medicine.

PUBLICATIONS

Journals: 84

Abstracts: 3

Chapters in Books: 1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor R.M. Pandey served as the Chairperson, Ethics Committee of Indian Institute of Public Health (Under PHFI), Delhi; Member, Scientific Advisory Committee of National Institute of Epidemiology (ICMR); Regional Medical Research Center (ICMR); Operations Research on RNTCP (GOI); Research Advisory Council, BPKIHS, Dharan, Nepal; Research Advisory Committee, VP Chest Institute; DBT-ICMR Alliance Studies on SAM Children; Steering Committee Member of Multi-Centric Collaborative Project; Expert Committee, Task Force Project on Cleft Lip and Palate Anomaly (ICMR); Apex Committee to Review Functioning of HRRC's of

ICMR; Technical Advisory Group on Grand Challenges India/Nutrition and Health; Expert Committee to Evaluate R&D proposals on the Possible Impact of IMF Radiation Exposure from Mobile towers and Handsets on Life and related R&D initiative by DST; Expert Committee on Estimation of Burden of Pediatric HIV Cases in India (ICMR); Technical Advisory Group of Division of Child Studies under the UNICEF for Time & Motion Study; Clinical Trial to Evaluate Home Based Nutritional Intervention in SAM Children, WHO; Expert Group, National Mental Health Survey by NIMHANS; Examiner, Ph.D. thesis submitted at Delhi University; Dr. M.G.R. University, Chennai; and M.Sc. in Health Statistics, BHU, Varanasi.

Professor S.N. Dwivedi was member of the following committees: Special Project Review Committee (PRC) for Model Rural Health Research Units (Block Level) of the Department of Health Research (ICMR); Task Force Committee on Methodology of ICMR; PRC for Oral Health (ICMR); Scientific Advisory Committee of National Institute of Medical Statistics, New Delhi; Epidemiology Review Group/ Expert Committee for Epidemiological Research at National Institute for Research in Environmental Health, Bhopal; Expert Group for Multicentric Project entitled ‘Diagnostic Accuracy of Hemoglobin Colour Strip, a Digital Hemoglobinometer and Non-invasive Device for Screening Patients with Anemia’ funded by MOH&FW; Data Safety Monitoring Board for a Clinical Trial, ‘Role of Yoga Nidra in Insomnia Patients;’ and Prof. RN Srivastava Award Committee of Indian Society for Medical Statistics; external co-guide and Doctoral Committee member for PhD, Department of Biostatistics & Health Informatics, SGPGIMS, Lucknow; external examiner to evaluate PhD thesis/ conduct viva-voce at BHU, Varanasi; Kumaun University, Nainital; and International Institute for Population Sciences, Mumbai; member of the selection committee at University of Guwahati, Assam and NDMC Medical College, New Delhi; external expert to evaluate publications of faculty at Dubai College of Dental Medicine; reviewer, project report for the National Institute of Medical Statistics, New Delhi; ICMR; and ICSSR; chair for scientific sessions, Joint Statistical Meeting 2014 of American Statistical Association (Boston, Massachusetts); 32nd Annual National Conference of Indian Society for Medical Statistics (Jammu), and Workshop on Research Methodology (Bhopal); member, Editorial Board of Indian Journal of Child Health; reviewer, International Society for Clinical Biostatistics and IJMR.

Professor V. Sreenivas was member, Assessment Board for the Scientists of ICMR; Technical Evaluation Committee to review the proposals for Inter-Sectoral Convergence & Coordination for Promotion and Guidance on Health Research, Department of Health Research; Study Design Committee, National Survey on Spurious Drugs, National Institute of Biologicals, MOH&FW; Expert Committee for Strengthening of Quality Control Testing Procedures of NAT Laboratory in National Institute of Biologicals, MOH&FW; Expert Group on Review of Proposals for Global Alliance on Chronic Diseases (ICMR); Project Review Committee of ICMR (Oncology, Ophthalmology and Neurological Sciences); Selection Committee, Central Council for Research in Unani Medicine, Department of AYUSH; Task Force Group on Mycobacterium Avium, (ICMR); Expert Group on Registry of People with Diabetes with Young Age at the Onset (ICMR); statistical consultant for Journal of Indian Association for Child and Adolescent Mental Health; Biostatistics Section Editor for the Journal of Cutaneous and Aesthetic Surgery; Indian Journal of Dermatology, Venereology & Leprology; and biostatistical reviewer for Journal of Clinical Oncology; Pediatrics; Indian Journal of Medical Research; Indian Pediatrics; Indian Journal of Pediatrics. He received the Prof. Premalatha award for the best original research paper in Dermatology for the year 2014-15 and AIIMS Research Excellence Award 2014.

Dr M. A. Khan was Associate Editor of Journal of Statistics and Mathematics, USA; editorial board member (Biostatistics) of International Journal of Scientific Reports; peer reviewer for Indian Journal of Medical Research, Statistics, Optimization & Computing Journal, USA and Journal of Model Assisted Statistics & Applications, USA.

Dr M. Kalaivani was statistical editor of Journal of Neuroanaesthesiology and Critical Care; and reviewer for Indian Journal of Dermatology, Venereology & Leprology and Peer J, UK.

VISITING SCIENTIST

Dr Mousumi Banerjee, Research Professor and Director of Biostatistics, Department of Biostatistics, and Centre for Health Care Outcomes & Policy (CHOP), University of Michigan, Ann Arbor, Michigan, USA.

9.7 Biotechnology

Professor and Head

Y.D. Sharma

Professors

J.S. Tyagi

H.K. Prasad

S.N. Das

Associate Professor

Anushree Gupta

HIGHLIGHTS

The department runs a successful Masters in Biotechnology course and a Ph.D. programme. It also supports fellowship programmes of national science academies. The faculty members of the department attracted a large number of extramural research grants from various government funding agencies. The faculty also provided expert advice to the Government of India and various universities/ institutions on aspects of teaching and research; delivered invited lectures, and published papers in high impact journals.

EDUCATION

The department continues with its 2 years postgraduate program in Medical Biotechnology leading to M. Biotech degree. The teaching program includes theory and practical classes, seminar presentations and research projects (dissertation) in frontier areas of medical research. Experts are invited from JNU, IGIB, ICGB, NII and NIIT and various specialties at AIIMS to familiarize the students with research developments in fields related to biotechnology, bioinformatics, molecular medicine, genomics, proteomics etc. The department also runs a Ph.D. program in Medical Biotechnology.

CMEs, National and International conferences

Lectures delivered

Y.D. Sharma: 4

J.S. Tyagi: 5

H.K. Prasad: 5

S.N. Das: 3

Oral papers/posters presented: 9

**Best Poster Award: 1

RESEARCH

Funded projects

Ongoing

1. Immunological and genetic polymorphism studies on *P. vivax* tryptophan-rich antigens, Y.D. Sharma, ICMR, 3 years, 2013-16, Rs. 22.5 lakhs.
2. Postgraduate training programme in biotechnology with special application to biomedicine, Y.D. Sharma, DBT, 5 years, 2009-14, Rs.1.13 crores.
3. National Alliance program for biodesign and in-vitro diagnostics between Translations Health Science and Technology Institute and All India Institute of Medical Sciences, Jaya S. Tyagi, DBT, 5 years, 2010-15, Rs.62.05 lakhs.
4. Centre of excellence, category III-CIEB project: 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, Jaya S. Tyagi, DBT, 5 years, 2011-2016, Rs.2.20 crores.
5. SysTB: A network program for resolving the intracellular dynamics of host-pathogen interactions in TB infection. DBT Network project, Jaya S. Tyagi, DBT, 5 years, 2011-2016, Rs. 1.46 crores.

6. J.C. Bose National Fellowship, Jaya S. Tyagi, DBT, 5 years, 2012-2017, Rs. 68 lakhs.
7. Isolation and characterization of anti-tubercular principle from contaminating bacterial strain, Jaya S. Tyagi, DBT, 2 years, 2013-2015, Rs. 4.70 lakhs.
8. Novel sample processing for the simple and rapid diagnosis of TB, MDR-TB and XDR-TB, Jaya S. Tyagi, DBT (SBIRI), 2 ½ years, 2015-2017, Rs. 47.41 lakhs.
9. Study of immunological impact of type 1 interferon(s) on immune response in tuberculosis patients, H.K. Prasad, ICMR, 2 years, 2013-2015, Rs.18 lakhs.
10. Phenotypic and functional characterization of T helper 17 (Th 17) cells in patients with oral squamous cell carcinoma and evaluation of their anti-tumour activity, S.N. Das, DBT, 3 years, 2013-2015, Rs. 51.15 lakhs.
11. Investigations of anticancer activities of some select medicinal plants and their molecular targets on human oral cancer cell lines, S.N. Das, AYUSH, 3 years, 2014-2017, Rs.25.71 lakhs.

Completed

1. The role of histone like protein (Hlp) of M. tuberculosis and related pathogens during infection, H.K. Prasad, AIIMS, 2 years, 2013-2015, Rs. 8.3 lakhs.
2. Functional characterization of selected host gene mutations and host pathogen interaction that potentially influence onset of disease or resistance to tuberculosis, H.K. Prasad, BRNS, 4 years, 2011-2015, Rs. 34.17 lakhs.

Departmental projects

Ongoing

1. Rapid diagnosis of tuberculosis using high affinity DNA aptamers
2. Development and validation of rapid and accurate diagnostic test for tuberculosis
3. Adaptation of mycobacterium tuberculosis in dormancy models
4. Gene expression signatures of mycobacterium tuberculosis strains in THP-1 cell infection model
5. Transcriptional analysis of DevR dependent promoters of mycobacterium tuberculosis
6. Innate immunity to mycobacterium tuberculosis
7. Human immune response to mycobacterium tuberculosis
8. Diagnosis of tuberculosis in humans and cattle
9. Metabolic profiling of tuberculosis patients

Completed

1. Vitamin C-modulated host response to mycobacterium tuberculosis in cell infection model
2. Interaction between DevR and SigA (σ^A) proteins of mycobacterium tuberculosis
3. Interaction between alpha (α) subunit of RNA polymerase and DevR proteins of mycobacterium tuberculosis
4. Study of vaccine response in children immunized with mycobacterium bovis BCG
5. Phenotypic and functional characterization of CD4+CD25+Foxp3+ regulatory T cells (TReg) in patients with oral squamous cell carcinoma
6. Study of anti cancer activities of plumbagin in oral cancer cell lines
7. Studies on the anti-cancer activities of operculana terpepethum on oral cancer cell lines (SCC9 and SCC25)

Collaborative projects

Ongoing

1. Diagnosis of TB in EBUS samples by antigen detection and PCR, Department of Pulmonary Medicine.
2. Diagnosis of extra pulmonary TB by antigen detection using indigenously developed reagents, RML Hospital.
3. Evaluation of nano-level expression of p38 α MAP kinase, a cell signaling protein in oral cancer and design of structure based peptide inhibitors against the same, Department of Biophysics.

4. Clinical correlation of ER, PR, HER2, neu expression and BRCA1 gene mutations in Indian breast cancer patients, Department of BRA-IRCH.

Completed

1. Studies on single nucleotide polymorphisms in TLR2 genes in patients with oral cancer, Department of ENT.

PUBLICATIONS

Journals: 9

Abstracts: 1

Chapters in books: 1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Y.D. Sharma is a fellow of all the three national science academies. He is member of Sectional Committee of Medical Sciences for Indian Academy of Sciences, Bangalore; DST-British Council; DBT Expert Committee; DSIR Project Review Committee on Malaria; UGC-SAP Advisory Committee; Board of Studies of Biotechnology of South Asian University, Delhi; Board of PG Studies in Biotechnology of Banasthali Vidyapeeth; Board of Studies, Himachal University, Shimla; Selection Committee for faculty positions at several universities and research institutions; QRT of CIFA, ICAR; Project Review Committee on Vector Science Forum, ICMR; DST-INSPIRE Faculty Fellowship; and PG external examiner of PGI, Chandigarh.

Professor J.S. Tyagi is INSA Council member and member of Scientific Advisory Committees of National Institute for Research in Tuberculosis, Chennai; Centre for DNA Fingerprinting and Diagnostics, Hyderabad; National Centre for Cell Science, Pune; and National Institute of Pathology, New Delhi.

Professor H.K. Prasad is member of Technical Committee of NRDC, ICMR and National JALMA Institute for Leprosy & Other Mycobacterial Diseases, Agra; Assessment Board - ICMR; Panel of Judges - Brig. S.K. Mazumdar Memorial Trust Young Scientist Award, New Delhi; Scientific Advisory Committee, Leprosy Mission's Stanley Browne Laboratories; Institutional Animal Ethics Committee (IAEC), University of Delhi South Campus (UDSC); Selection Committee of Institute of Pathology (ICMR) and Jawaharlal Nehru Fellowship, JNU; Project Monitoring Committee, SBIRI-BCIL, DBT; ICMR Immunology Task Force Committee; Project Review Committee of ICMR, DBT, and DST; and examiner: various universities and institutions.

Professor S.N. Das is a fellow of the National Academy of Medical Sciences. He is a member of Task Force Group on Cancer Biology, DBT; Technical Committee, Institute of Pathology (ICMR); Bioethics Committee for Recombinant DNA Research, AIIMS; Doctoral Committee for the Department of Medical Elementology and Toxicology, Jamia Hamdard University, New Delhi; Research Advisory Committee, Guru Gobind Singh Medical College, Baba Farid University, Faridkot, Punjab; member of Editorial Board of Open Journal of Toxicology and International Journal of Osteoporosis and Metabolic Disorders; reviewer for Oral Oncology, Cancer Investigations, DNA and Cell Biology, Life Sciences, International Journal of Immunogenetics, European Journal of Oral Sciences, Human Immunology, International Journal of Human Genetics, International Journal of Cancer, Journal of Oral Pathology and Medicine, PLOS One, Cancer Letters, Indian Journal of Medical Research, and Indian Journal of Cancer; and Ph.D. examiner for various universities and institutes.

9.8 Centre for Community Medicine

Professor and Head Chandrakant S. Pandav		
Professors		
Shashi Kant Kiran Goswami		Sanjeev Kumar Gupta Anand Krishnan
Additional Professors		
Baridalyne Nongkynrih Sanjay Kumar Rai		Puneet Misra Y.S. Kusuma Kumari
Assistant Professors		
Kapil Yadav Partha Haldar	Anil Kumar Goswami	Sumit Malhotra Ravneet Kaur
PHN Supervisor Mercy John		

HIGHLIGHTS

The main focus area of the Centre has been on evolution of replicable models of comprehensive health services through its urban and rural health programs. The Urban health program provides community based health services to an urban resettlement colony in Dakshinpuri Extension. The Comprehensive Rural Health Services Project (CRHSP), established in Ballabgarh Block, Faridabad District of Haryana is a collaborative project between Haryana State Government and AIIMS. CCM is the nodal department for Disease Prevention and Outbreak Response Cell (DPORC) at AIIMS. The mandate of DPORC is prevention and control of communicable diseases e.g. Dengue, Malaria, Hepatitis etc. in AIIMS campus. CCM houses the WHO Collaborating centre for Capacity Development and Research in Community based NCDPC. It conducted a SE Asian Regional Workshop on Data Analysis and Report Writing for NCD Risk Factor Surveys. (Photo 1) It also started the first AIIMS-PGI National Course on Public Health Approaches to NCDs in collaboration with School of Public Health PGI Chandigarh. CCM is the nodal agency to provide technical support to HIV sentinel surveillance in five northern states (Bihar, Delhi, Jharkhand, UP, and Uttarakhand) of India since 2006. It held its annual north zone regional workshop which was inaugurated by the Director AIIMS. (Photo 2) The department has initiated capacity building of health personnel in operational research as the nodal centre identified by Department of Health Research, Ministry of Health and Family Welfare.



Inauguration of SEA Regional Workshop on Data Analysis and Report Writing for NCD Risk Factor Surveys. (From left to right: Prof. Anand Krishnan, Prof. Shashikant, Dr. Roderic Ofrin from WHO/SEARO)



An ongoing session in Annual north zone workshop for HIV sentinel surveillance

EDUCATION

The department has active undergraduate and postgraduate programs as well as training programs for interns. The department is actively involved in the training of nursing students from the College of Nursing, AIIMS.

In-service Training

In addition to teaching of students, periodic in-service trainings were conducted for different cadres of staff working at SDH and field staff of PHCs. The trainings conducted during 2014-15 were as follows:

1. A total of 32 hours of in-service training was conducted for nursing staff on Standard Operating Procedures (SOPs) in ward, management of antenatal and postnatal cases, infection control, basic knowledge of computer programs, Infant Milk Substitute (IMS) Act, Baby Friendly Hospital Initiative (BFHI), and communication skills.
2. Two day trainings on Neonatal resuscitation program for nursing staff and health workers area was conducted in collaboration with the College of Nursing, AIIMS, New Delhi.
3. A session on biomedical waste management and infection control for sanitation staff.
4. Monthly trainings of ASHA and Health workers were conducted at the PHCs. Topics covered, included home based post natal care, ante natal care, high risk pregnancy tracking, immunization, Integrated management of neonatal and childhood illness, identification of diarrhea and treatment, bio medical waste management, calculation of demographic, mortality and morbidity indicators and its significance, and tuberculosis. A total of 96 hours of in-service training was provided during the year.

CMEs/Workshops/Symposia/National and International Conferences

1. National Integrated Biological and Behavioral Surveillance (IBB), Training of Trainer (ToT) workshop” for five northern states (Bihar, Jharkhand, Delhi, UP, and Uttarakhand) in New Delhi from March 31, 2014 to April 6, 2014.
2. National Consultation for Influenza mortality burden estimate for India, 5-6 May 2014, New Delhi

3. Refresher training on National Integrated Biological and Behavioral Surveillance (IBB), ToT workshop” for five northern states (Bihar, Jharkhand, Delhi, UP, and Uttarakhand) at Faridabad from 10-11 October 2014.
4. Pre Surveillance Orientation and Planning Workshop on HIV Sentinel Surveillance” for five northern states (Bihar, Jharkhand, Delhi, UP, and Uttarakhand) at Faridabad from 11-12 December 2014.
5. First AIIMS-PGI National Course on Public Health Approaches to NCDs. 16- 26th March 2015, Chandigarh.
6. AIIMS- Department of Health Research (DHR) workshop on operational research (basic level), 21-24 March 2015, New Delhi.

Lectures delivered

Chandrakant S. Pandav: 6

Anand Krishnan: 10

Kapil Yadav: 8

Partha Haldar: 4

Shashi Kant: 4

Puneet Misra: 2

Anil Kumar Goswami: 6

Ravneet Kaur: 3

Kiran Goswami: 1

Sanjay Rai: 6

Sumit Malhotra: 4

Oral papers/posters presented: 6

RESEARCH

Funded projects

Ongoing

1. Human Resource Development Health Research Scheme- Operational Research, Sumit Malhotra, Department of Health Research, MoHFW, GOI, 1 year, 2015, Rs.16 lakhs.
2. Population based study on refractive errors, presbyopia and spectacle coverage in rural North Indian adults, Sumit Malhotra, AIIMS, 2 years, 2013-15, Rs.4.44 lakhs
3. A phase III, observer-blind, randomized, multi-country, non –influenza vaccine comparator-controlled study to demonstrate the efficacy of GlaxoSmithKline Biologicals’ quadrivalent seasonal influenza candidate vaccine GSK2321138A (FLU D-QIV), administered intramuscularly in healthy children 6 – 35 months of age, Shashi Kant, GlaxoSmithKline Pharmaceuticals Limited, 1.6 years, 2014-15, Rs. 50.9 lakhs
4. Effect of Iron and Folic Acid tablet versus capsule formulation on treatment adherence and iron status among pregnant women: a randomized control trial. Shashi Kant, St. John’s Research Institute, Bangalore, India, 1 year, 2014-15, Rs. 2.7 lakhs
5. National Iodine Deficiency Disorders and Salt Intake Survey, Kapil Yadav, National Coalition for Optimal Iodine Intake and GAIN, 1 year, 2014-15, Rs 54 lakhs
6. 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, 1 year, 2014-15, Rs 14 lakhs.
7. Prevention of type 2 diabetes in women with prediabetes using vitamin D supplementation and lifestyle intervention in North India, Puneet Misra, DST, 3 years, 2012-15, Rs.58 lakhs
8. Prevalence and associated risk factors of complications in diabetes patients of a rural community of Ballabgarh, Puneet Misra, AIIMS, 1 year, 2014-15, Rs. 5 lakhs
9. A phase III study to evaluate immune non inferiority and safety of the All in One liquid formulation of a live attenuated tetravalent (G1-G4) Bovine-Human Reassortant Rotavirus Vaccine (BRV-TV) to a licensed vaccine RotaTeq when administered as three dose series to Indian infants concomitantly with other routinely recommended vaccines for the age, Puneet Misra, Shantha Biotech, 1 year, 2014-15, Rs. 34 lakhs
10. Epidemiological study of Respiratory Pathogens in Acute Respiratory Tract Infection among Children and Elderly in India, Anand Krishnan, CDC Atlanta, 5 years, 2011-16, Rs. 25 crores.
11. Non-communicable diseases (NCDs) among elderly persons in a resettlement colony of Delhi, Anil Kumar Goswami, AIIMS, 1 year, 2014-15, Rs. 5 lakhs
12. Compliance monitoring of prohibition of smoking in public places (under COPTA act) in four jurisdictions of India. Sanjay K Rai, IUATLD (The Union), 1 year, 2013-14, Rs. 8.28 lakhs

Completed

1. Development of neonatal health care service delivery model for rural India, Anand Krishnan, Unicef, India, 4.5 years, 2010-15, Rs.1.8 crores
2. Emerging infectious diseases in the Republic of India: Influenza disease burden, Sanjay K Rai, Center for Disease Control (CDC), Atlanta USA, 6 years, 2009-14, Rs. 2.07 crores
3. A nutritional intervention study to assess the effectiveness of iron fortified biscuits in improving iron status of primary school children of Delhi, MG Karmarkar Kapil Yadav, EDMC, BNF, 2 years, 2011-14, Rs. 22 lakhs
4. Migration, poverty and access to healthcare: a study on people's access and health system's responsiveness in Delhi, Y. S. Kusuma, ICMR, 3 years, 2011-14, Rs. 48 lakhs.

Departmental projects

Ongoing

1. Anxiety disorders amongst adolescents in rural Ballabgarh, Haryana, India
2. Incidence of neural tube defects in rural north India
3. Pregnancy wastage in a rural community of Haryana
4. Directly observed iron supplementation during pregnancy in a rural population in Haryana: A randomized control trial
5. Facility assessment of old age homes of Delhi and a study on selected chronic conditions among elderly persons residing in them
6. Estimation of mortality burden in India due to respiratory viruses: Influenza and Respiratory syncytial virus
7. Effectiveness of directly observed iron supplementation during pregnancy in a rural population in Haryana: A randomized control trial.
8. Primary Health care utilization pattern in urban resettlement population of Delhi, India.
9. Perceived Satisfaction about Hospital Services among Postpartum Women at Selected Secondary Level Government Hospitals of District Faridabad, Haryana
10. A study of knowledge and barriers in organ donation among adult rural population of CRHSP-AIIMS, Ballabgarh
11. Primary health care services utilization in an urban resettlement colony in Delhi, India
12. Dietary pattern of preschool children in Dakshinpuri extension, New Delhi
13. A Study of Falls among Elderly Persons in a Rural Area of Haryana
14. Economic Evaluation of Influenza immunization of under-fives in India

Completed

1. Perceived Satisfaction about Hospital Services among Postpartum Women at Selected Secondary Level Government Hospitals of District Faridabad, Haryana
2. Prevalence Of Urinary Carriage Of Extended Spectrum Beta Lactamases Producing Enterobacteriaceae In A Rural Community Of Ballabgarh, Haryana, India
3. Dietary Calcium Intake, And Serum Calcium Level Among Pregnant Women Residing In A Rural Community of Ballabgarh, Haryana
4. Evaluation of home based postnatal care in district Faridabad, Haryana
5. Sexual Health Problems among Adult Males of Rural North India: Need for community level interventions
6. A Cost descriptive study of delivery care services in rural Ballabgarh, Haryana.
7. A Cost descriptive study of a NCD clinic at CRHSP Ballabgarh, Haryana, India.
8. Community Audit of Environmental Factors and Their Influence on NCD Related Behaviours
9. Dietary Calcium Intake, And Serum Calcium Level Among Pregnant Women Residing In A Rural Community of Ballabgarh, Haryana

10. Prevalence of Work-related Neck Pain in Desk Job Workers at the All India Institute of Medical Sciences, New Delhi
11. Prevalence of selected morbidities and associated behaviors in under-five children of Sugali tribe, living in Madanapalle Mandal of Chittoor District, Andhra Pradesh
12. Study on depression among elderly persons in rural area of Ballabgarh, Haryana
13. Community-based study of childhood injuries in an urban resettlement colony in New Delhi.
14. An assessment of sexual High Risk Behavior among Female Factory workers in Faridabad
15. A study on needs assessment of children attending pediatric OPD for HIV care at a tertiary care hospital in Delhi

Collaborative projects

Ongoing

1. Study on Awareness and Health Seeking Practices about Common Eye Conditions in urban slums of Delhi, Department of Community Ophthalmology.
2. Study of sense of coherence and spectacles compliance among secondary school students in Delhi, Department of Community Ophthalmology.
3. National Trachoma Survey- rapid assessment and prevalence study, Department of Community Ophthalmology.
4. Evaluation of health status and occupational health hazards amongst the workers engaged in salt production in Vedaranyam, India. Department of Community Medicine, JIPMER.
5. “Utility of an Audio-Visual Display in Foot Care Education in Patients with Diabetes”, Department of Endocrinology
6. A comparative study to assess opinion, attitude and practices regarding care and protection of children among parents living in selected rural and urban community in Delhi NCR, College of Nursing AIIMS
7. Situational Analysis of Burn patients in selected district of country, JPN Trauma Centre

PUBLICATIONS

Journals: 79

Chapters in Books: 7

Books: 2

PATIENT CARE

The patient care services of Centre for Community Medicine are in two broad areas – Rural (Comprehensive Rural Health Services Project, Ballabgarh) and Urban Health Program. In addition, under its rural component it also provides comprehensive community health services.

Summary

CRHSP Ballabgarh (CRHSP Civil Hospital and two PHCs) provided following patient care services:

Services	Patients
OPD services	3,34,279 patients
Inpatient services	0,807 patients
Emergency services	155,398 patients
Surgeries	2789 (934 major and 1855 minor)
Deliveries	4515

Under Urban Health Program (UHP), a total of 27656 patients were seen including immunization:

1. Comprehensive Rural Health Services Project, Ballabgarh

Comprehensive Rural Health Services Project (CRHSP), Ballabgarh, is the rural wing of the Centre for Community Medicine of All India Institute of Medical Sciences, New Delhi. It comprises of a Sub District Hospital (SDH), and two Primary Health Centres (PHCs) at Dayalpur, and at Chhainsa. Its Intensive Field Practice area caters to a population of 95,387 through a network of 12 sub-centres and two PHCs. The mission of CRHSP, Ballabgarh is

to achieve excellence in public health by undertaking teaching, research and patient care in rural setting. Patient care at the CRHSP, Ballabgarh is described under two categories.

A. Patient care services provided at SDH, Ballabgarh, and

B. Patient care services provided at the Primary Health Centres

A. Patient care services provided at SDH, Ballabgarh:

Outpatient Departments:

Daily	Department/Schedule
• General Medicine	• Non Communicable Disease Clinic
• General Surgery	• Physical Medicine and Rehabilitation (PMR)
• Paediatric	• Paediatric Surgery
• Obstetrics and Gynecology	• Dermatology
• Ophthalmology	• Orthopedics
• Psychiatry	• Thrice in a week
• Dental	• Ante-natal clinic
• AYUSH (Homeopathy)	• Twice in a week
• AYUSH (Ayurveda)	• Ear, Nose and Throat

1. Total Outdoor patients

• Overall Out Patients Total (New and Old)	264,994
• Overall New OPD patients (%)	138,748 (52.4%)
• Medicine	91,542
• Pediatrics	61,995
• Obstetrics and Gynecology	21,717
• Antenatal care Clinic registrations, Total visits	16,291
• Ophthalmology	11,413
• Surgery	10,923
• ENT	9,010
• Dental	9,008
• Physical Medicine & Rehabilitation	7,877
• Non-Communicable Diseases clinic	6,034
• Dermatology	5,548
• AYUSH (Homeopathy and Ayurveda)	7,743
• Orthopaedic	2,565

2. In-patient services (Total no. of beds: 50)

a.	Total Admissions (including births)	9,564
	• Admission through casualty	4,053
	• Admission through OPD	2,130
	• Admission of New Borns (births)	3,381
b.	Disaggregation of admissions, by specialty (N=9,564)	

	• Obstetrics and Gynecology	4,715
	• Pediatrics	3,611
	• Ophthalmology	541
	• Surgery	464
	• Medicine	128
	• ENT	100
	• PMR	5
c.	Average Bed Occupancy Rate (%)	134.7%
d.	Total Deliveries Conducted (including IUD)	3,420
e.	Average duration of stay for all patients (in days)	2.57

Casualty Services		
1.	Patients registered	48,399
2.	Medico-legal cases	4,520
3.	Emergency admissions	2,391

3. Other Clinical services:

Laboratory and Diagnostic Services		
a.	Laboratory investigations (biochem and hemato)	188,602
b.	X-Ray	16,827
c.	Ultrasonography	7,128
d.	Malaria Slides	4,051
	• P. vivax	2
	• P. falciparum	NIL
e.	Counselling and testing services provided for HIV	5,605

Total Surgical Procedures		
1.	General Surgery	745
2.	Obstetrics and Gynecology	909
3.	Ophthalmology	487
4.	Pediatrics Surgery	508
5.	ENT	114
6.	PMR	26
	Total	2,789

Revised National Tuberculosis Control Programme: Ballabgarh hospital is a Tuberculosis Unit (TU) under the Revised National Tuberculosis Control Programme. Four designated microscopy centres (DMCs) are attached to this unit. Total tuberculosis cases treated at SDH from 1st April, 2014 to 31st March, 2015 were:

Patient Load	Ballabgarh TU	PHC Chhainsa	PHC Dayalpur	Total
Total cases	613	67	61	741
a. New cases	432	48	44	524
b. Old cases	181	19	17	217

Clinical Services in Intensive Field Practice Area:

PHC	Outpatient Services		Total	Inpatient Services	Emergency Services
	New Cases	Follow-up cases			
Dayalpur	20,276	23,003	43,279	570	3,688
Chhainsa	14,325	11,671	25,996	673	3,311
Total	34,601	34,674	69,275	1,243	6,999

Out Reach Speciality OPD	PHC Chhainsa	PHC Dayalpur
Gynaecology	724	636
Paediatrics	751	492
Ophthalmology	237	739
Psychiatry	373	233
Total	2,085	2,100

Anti-rabies vaccination was provided to 105 individuals in PHC Chhainsa and 406 individuals in PHC Dayalpur.

Community Services: These are provided as per the guidelines of National Health Mission. Key Maternal Child Health indicators:

Indicator	Value
Total Population	95,387
Birth Rate per 1000 population	20.2
Death Rate per 1000 population	6.7
Infant mortality rate per 1000 live births	33.2
Under 5 mortality rate per 1000 live births	46.8
Total ante natal registration	2,293
Complete TT coverage of registered cases (percent)	90
Percentage of Institutional delivery PHC Chhainsa	96.2
Percentage of Institutional delivery PHC Dayalpur	93.5
Total deliveries in delivery huts PHC Chhainsa	625
Total deliveries in delivery huts PHC Dayalpur	470
Post Partum IUCD inserted	360

National Vector Borne Disease Control Programme: Key Indicators:

Indicator	PHC Chhainsa	PHC Dayalpur
Total number of malaria slides tested	5039	9361
Total number of positive cases	7	10
Annual Parasite Incidence (API)	0.14/1000 population	0.21/ 1000 population
Annual Blood Examination rate (ABER)	10.5%	19.9%
Slide Positivity Rate (SPR)	0.14%	0.11%

Initiatives undertaken during the financial year 2014-15:

1. Administration of parental Iron sucrose for anemic pregnant women: Intra venous Iron sucrose infusion for pregnant women was started as a special initiative to combat the high burden of anemia during pregnancy. Women were tracked from the routine antenatal clinics in the villages and referred to PHCs for intra venous iron sucrose administration as per doses recommended by the National Health Mission Guidelines. Telephonic tracking of patients was done through health workers and ASHAs to improve the utilization and follow up. A total of 603 pregnant women were given intra venous iron sucrose injection during this year.

2. High risk pregnancy tracking: Antenatal clinics are conducted in each and every village of IFPA. A tracking system for all high risk pregnancies was identified during these clinics and started in the year 2014-15. Details of high risk pregnancy were entered in a software developed by CRHSP and a work-plan was generated. Health workers used this work plan to track the care seeking action during their scheduled house to house visits. A total of 998 high risk pregnancies were identified and tracked during this year.

3. 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 1,2,3,4,5,6,7,14,15 and 19 at Subhash Camp, Dakshinpuri catering to a population of 35,363. Patient care services are also provided at the Urban Health Centre.

	Activities	Number
OPD	Total no of patients seen (including immunization)	27656
	Total number of referrals	1400
Immunization	0 dose OPV	45
	BCG	89
	DPT I	6
	DPT II	12
	DPT III	19
	OPV I	250
	OPV II	266
	OPV III	263
	DPT booster + OPV booster	421
	Measles	325
	MMR	343
	TT I (ANC)	130
	TT II or Booster (ANC)	134
	Hepatitis I	12
	Hepatitis II	22
	Hepatitis III	26

	Pentavalent I	244
	Pentavalent II	254
	Pentavalent III	244
	Typhoid	705
	Total cases of RI/STI treated	288
	Iron & Fe tablets distributed (Adult)	61250
	Iron & Fe tablets distributed (Paed)	21500
Family planning	No of Condoms distributed	2730
	No of Oral contraceptive pill cycles distributed	99
Laboratory services	Rapid test for malaria	128
	Hemoglobin	1142
	Urine (albumin & sugar)	29
	Blood sugar	1129
Morbidity in children 0-5 years	Diarrhoea and dehydration	260
	Respiratory infections seen in UHC and treatment given	1727

Health education Activities

Date	Activities
09.04.2014	An Exhibition on “ Tobacco Control ” was organized in collaboration with National Drug Dependence Treatment Centre, Gaziabad, UP
26.04.2014 - 27.04.2014	Participated in the “ Medical Exhibition Catalyst ” conducted by Student’s Union 2014-15 on 26 th & 27 th April 2014 at JLN Auditorium AIIMS. 35 posters on Meningitis, T.B., Vector Borne Diseases, Tobacco, Diarrhea, Smoking, and Obesity were displayed.
26.05.2014 - 25.06.2014	An Exhibition on “ Tobacco and its ill Effects ” (12 Posters) was displayed at RAK OPD, AIIMS for a month on the Eve of “ World No Tobacco Day ” 2014
13.06.2014 - 30.10.2014	“ Dengue and Malaria ” posters were displayed at Pediatrics & Medicine OPDs, Pediatrics & Medicine Emergency Wards, New and Old Private Wards, Lift areas, Central Admission Block, Generic Pharmacy Counter, and various other common places of AIIMS Campus
06.07.2014 - 21.07.2014	Posters on “ Family Planning and Population Problems ” were displayed at Urban Health Centre Dakshinpuri Extension, New Delhi
15.07.2014	An “ NSS Orientation Programme ” was organized for New Batch of MBBS 2014 students
16.07.2014	10 Posters were developed on “ Vector Borne Diseases ” (Brief Messages) and Health Definition in Hindi
01.08.2014	An “ Orientation Programme ” was organized for students of BA (Social Work) from Dr. Bimrao Ambedkar College, University of Delhi
01.09.2014	Four Role Plays on “ Diarrhoea, Alcohol and Tobacco Abuse ” were conducted under Family Health Advisory Scheme Intervention (Batch I) in Block No. 16 & 17 Dakshinpuri Extension
01.09.2014	Organized “ Intervention Programme ” on “ Alcohol Prevention ” with the collaboration of an NGO “Alcohol Anonymous” at Urban Health Centre, Dakshinpuri Extension, New Delhi
08.09.2014	Four Role Plays “ BPL Ration, Alcohol and Tobacco and Population Problem and Its Effects on Diseases ” were conducted under Family Health Advisory Scheme Intervention (Batch II) in Block No. 14 & 15 of Dakshinpuri Extension

17.09.2014	20 Banners on “ Vector Borne Diseases ” were displayed at various place in AIIMS campus
24.09.2014- 27.09.2014	Participated in 59th Institute Day Exhibition 2014 with 12 posters on Health Definition, Dengue (2), Malaria (2), Vector Borne health messages (3), and Ebola (2 in Hindi & 2 in English. 14 films were screened on public health issues. Some 1,000 Dengue & Malaria and Chikungunya booklets were distributed to the visitors during the exhibition
01.10.2014	Attended a CME to celebrate “ World Heart Day ” at Lady Harding Medical College, New Delhi
31.10.2014	AIIMS, Heal Foundation & Glanmark launched the nationwide “Developing Healthier India Campaign” on 31.10.2014 by organizing lecture and street play, Flag hoisting Ceremony
16.12.2014- 17.12.2014	An “ Food and Nutrition Exhibition Health Camp ” was organized at PHC Chhainsa, CRHSP Ballabgarh,
26.12.2014- 27.12.2014	An “ Food and Nutrition Exhibition Camp ” was organized at Urban Health Centre Dakshinpuri, New Delhi,
06.01.2015- 07.01.2015	An “ Food and Nutrition Exhibition Camp ” was organized at PHC Dayalpur, CRHSP Ballabgarh
06.01.2015	Posters on “ Cold Wave and Swine flu ” were displayed at 25 prominent places in AIIMS

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Book launch event hosted by Centre for Community Medicine: Centre for Community Medicine in collaboration with SATHI-CEHAT hosted the launch of book titled, “Voices of Conscience from Medical Profession”. The book authored by Dr Arun Gadre and Dr Abhay Shukla was released by Shri S. C. Sinha- Member of the National Human Rights Commission on 26th February, 2015. The event was attended by over 200 participants from AIIMS and larger medical and health fraternity from Delhi and outside Delhi.

Community based “Nutrition Exhibition” inaugurated by Ms Maneka Gandhi, Hon’ble Minister of Women and Child Development: “Exhibition cum-demonstration session to promote healthy life style through life course approach” was held at Dayalpur, Chhainsa and Dr Ambedkar Nagar from 16th December, 2014 to 7th January, 2015. The exhibition was held in collaboration with World Health Organisation, Food and Nutrition Board, Ministry of Women and Child Development and Centre for Community Medicine from 16th December 2014 to 7th January 2015. The community of rural and urban field practice area of the Centre for Community Medicine actively participated in the event.

Professor Chandrakant S. Pandav was appointed as Institute Body Member of Postgraduate Institute of Medical Research, Chandigarh; Member on Advisory Committee on National Nutrition Mission by Ministry of Woman and Child Development, Government of India; Member of Advisory Committee on Malnutrition and Role of Food and Nutrition Board, Ministry of Women and Child Development, Government of India; Chairman of the Committee of “Disease Prevention and Outbreak Response Cell (DPORC)” AIIMS, New Delhi; Member of the Technical Resource Group of the National Urban Health Mission by the Ministry of Health & Family Welfare, Government of India; Member of the Expert Group for Development of Regulations and Guidelines for Food Fortification, by Food Safety and Standards Authority of India, (Ministry of Health and Family Welfare of India), Government of India; Attended and conducted Health Awareness and Health Promotion Camps on Non-Communicable Diseases (NCD) in Jalandhar, Punjab, Bangalore, Kerala, Trivandrum, Pune, Madikeri, Mysore during the year 2014-15; Chaired the session in National consultation on Malnutrition at Vigyan Bhavan, on 22nd- 23rd September, 2015; Participated in Regional workshop on Sodium and Salt reduction by WHO-SEARO at AIIMS on 29th September, 2015.

Professor Shashi Kant served as member of Ethics Committee of NIMS (Delhi); was selected as Chair Person of Institutional Review Board of IIHMR (Jaipur) for a period of two years; was a member of Technical Resource Group on HIV Surveillance and Estimation of National AIDS Control Organization; in his capacity as member of Technical Resource Group on Research and Development reviewed the research project proposals submitted to National AIDS Control Organisation, Ministry of Health, Government of India; Chaired two scientific sessions at the IAPSM Annual Conference Feb 2015 in Lucknow.

Professor Sanjeev Gupta was a member of the Core Committee of the AIIMS, under the Revised National Tuberculosis Control Programme; reviewer of many international and national journals.

Professor Kiran Goswami was Member of Central Regional Institute at AIIMS for HIV Sentinel Surveillance; Attended National training of Trainers for IBBS (18-23 March 2014), Regional Training of Trainers, IBBS(31/3-6/4/14), Refresher Training of Field Trainers (IBBS) 10/10/14 - 11/10/14 and Pre Surveillance HSS Workshop 2015 (11-12/12/14); Member Expert Group (DGHS) for Development of Guidelines for Clearance of dead body, September 2014; Technical Advisor for Project Evaluation for Research Program to Emphasize Public Health Significance of Childhood Pneumonia in India, INCLEN; Attended as an Expert in Family Welfare Programme Consultation Committee at All India Radio, Delhi on 4/4/2014, 10/7/14 and 25/9/14; Participated as expert in PT Board for Combined Medical Services Examination 2014 at UPSC from 1/9/14 to 5/9/14; Examiner for MBBS professional Examinations in Community Medicine at Maulana Azad Medical College, Delhi (24-29 Nov. 2014), Government Medical College, Chandigarh 8/12/14- 9/12/14, Lady Harding Medical College and UCMS, Delhi (28/1/15 -1/2/15) and Sharda University (18-20 March 2015). Examiner for MD Community Health Administration CHA at NIHF, Delhi 23.-24/4/2014; Attended Workshop by Department of Hospital Administration in Collaboration with Delhi state Legal Services Authority (DSLISA) (21-22/1/15), World Congress on Public Health (11-15 Feb 2015) and Micronutrient & child Health Workshop (3-7/11/14), Workshop OSCE and OPSE (CMET) on 13/11/14.

Professor Anand Krishnan was conferred the Fellowship of National Academic of Medical Sciences in Community Medicine and IAPSM Harcharan Singh oration for 2015. Dr. Anand Krishnan received AIIMS Excellence in Research Award 2014; third prize under the category “Clinical Research” for the publication “effectiveness of demand and supply side intervention in promoting institutional deliveries: a quasi-experimental trial from rural north India”; was a member of the NCD Monitoring and Steering Committee of MoHFW, heads the WHOCC on Research and Capacity building on Community based NCD strategies, Member technical advisory committee for Global Adult Tobacco Survey, Co-ordinator, drafting committee of National NCD Multi-sectoral Action Plan, Member of Technical Advisory Group on National Mental Health Survey, Member of ICMR Project Review Committee for Neurology, CVD, Cancer, NCDs, member of ICMR Task force Committee on development of indigenous tools for cognition; Member of Member Global Co-ordination Mechanism for NCD Prevention and Control, provided technical support to Timor Leste and Sri Lankan Ministry of Health to conduct National NCD risk factor surveys, attended the SEA Regional Meeting on Multi-sectoral action for NCDs in Bengaluru, August 2014; Member Technical Advisory Group for Punjab State NCDRF survey; Member WHO Taskforce To Evaluate Influenza Data To Inform Vaccine Impact And Economic Modeling; Member WHO Working Group on Influenza Burden Estimation; Member Dean Research Committee, AIIMS, Member Intramural Research Grant Review Committee (Clinical).

Dr Baridalyne N. Coordinated World population fortnight in Urban Health Programme in July 2014. Member of Delphi group on “Research Priorities for Social Psychiatry in India” exercise led by the Indian Association for Social Psychiatry (IASP).. Conducted a scientific session during the National conference of Indian Association Adolescent health. Attended the National conference of Indian Association Adolescent health RIMS Manipur in March 2015. Member of project review committee in E.N.T projects, ICMR. Thesis evaluation for B.P.Koirala Institute of Health Sciences Dharan Nepal; Government Medical College Agartala, Tripura; thesis evaluation for Community Medicine School of Public health PGIMER Chandigarh. Reviewer for major national and international journals; Reviewer for ICMR Short Term Studentship (STS) programme online review on February 2015.

Dr Puneet Misra was Member of Program Advisory Council Member, Department of science and Technology; was involved with assessment of project for DST and other agencies including ICMR, DBT CPCB. Thesis evaluation for B.P.Koirala Institute of Health Sciences Dharan Nepal, was reviewer for ICMR Short Term Studentship (STS) programme, gave a TV talk on Geriatric health and HIV, was Invited as an expert at UPSC and Punjab PSC, was reviewer for both National and International Journals, Chaired Session on Severe Adverse Events of Vaccines at IAPSM Annual Conference at Lucknow in February 2015, represented IAPSM in the National Level Discussion on Draft National Health Policy conducted by NHSRC in February 2015

Dr Sanjay Rai was elected *Vice President* (north zone) of Indian Public Health Association for the year 2013–15; was Member of Technical Advisory Group (TAG) on “Research Programme to Emphasize Public Health Significance of Childhood Pneumonia in India” for the INCLEN in Bill and Melinda Gates Foundation supported programme; Nominated by National AIDS Control Organization (NACO), Department of AIDS Control (DAC), Ministry of Health and Family Welfare, Government of India as a “focal person” for providing technical assistance

for HIV Sentinel Surveillance (HSS) to five northern states (Delhi, Bihar, UP, UK and Jharkhand) of India; Member “Mortality Estimation Working Group” of INDEPTH and contributed and attended INDEPTH “Transitional mortality pattern and cause of death workshop from November 29 – December 3, 2014 at Durban South Africa; Reviewed manuscript for publication in various national and international journal ; Conducted supervisory field visits of Bihar, Jharkhand, Delhi, Uttarakhand and UP to monitor Integrated Biological and Behavioral Surveillance (IBBS), and HIV Sentinel Surveillance and provided technical support to these states; member of the Board of Examiners in Community Medicine for MBBS final professional examination in Community Medicine at PGIMS Rohtak on April 16, 2014; was external examiner for MD practical examinations of Delhi University from 21 -24 April 2014 and MBBS final professional at UCMS New Delhi from 24-28 November 2014; external examiner for final MBBS practical examinations of BPKIHS, Dharan, Nepal from 11-15 May 2014; external examiner for MD practical examinations of North Bengal Medical college, Siliguri, WB 28-29 April 2014.

Dr Y.S. Kusuma Kumari received AIIMS Excellence in Research Award 2014; Second prize under the category “Clinical Research” for her publication “Migration and access to maternal healthcare: determinants of adequate antenatal care and institutional delivery among socio-economically disadvantaged migrants in Delhi”; was Member of the ‘National Task Force on Migrants’ Healthcare Access’ of Indian Council of Medical Research (ICMR); Member of ‘NCD Risk Factor Collaboration (NCD-RisC); The Global Burden of Metabolic Risk Factors for Chronic Diseases Collaboration Group’; Developed and implemented IEC strategies in collaboration with Delhi state health authorities and other NGOs, under an ICMR interventional project; Served as screening committee member of Department of Science and Technology (DST) and Indian Council of Medical Research (ICMR); Served as Editorial Board Member for Studies on Ethno-Medicine and Afro-Asian Journal of Anthropology & Social Policy; Serves as Reviewer to international and national professional journals.

Dr Anil Kumar Goswami was nominated Patron of “All India Association of Medical Social Work Professionals”; Member of the Advisory Committee of “Privar Kalyan Karyakram Slahakar Samiti” Akashwani Bhawan New Delhi. (25.09.2014 & 30.03.2015); Designated Nodal Officer of “Disease Prevention Outbreak Response Cell” (DPORC) AIIMS; Chairperson of Scientific Advisory Committee of a National Seminar of “All India Association of Medical Social Work Professionals”; Attended a “Research Methodology Course” conducted by Epidemiology Unit AIIMS on 08.08.2014 to 09.08.2014; Attended 2nd International Workshop on Micronutrients and Child Health (MCHWS-2014) at New AIIMS, New Delhi w.e.f. 03.11.2014-06.11.2014; Attended 42nd Annual Conference of Preventive and Social Medicine 2015 at Lucknow w.e.f. 26.02.2015-27.02.2015; Attended an “Annual Seminar of All India Association of Medical Social Work Professionals” and chaired the scientific session at AIIMS 20.03.2014; Organized a “Guest lecture” on “What can doctor do to halt alcohol & Tobacco epidemic”: By Dr. Dharav Shah, a Psychiatrist from Mumbai. Venue: CCM seminar room, AIIMS on 01.05.2014; Organized a Guest Lecture on “Handful of day in Potters hand” by Mr. IPE Mathai, Venue: CCM seminar room AIIMS on 07.5.2014; Indian Doctors for Peace & Development (IDPD) students affiliated to “International Physician for Prevention of Nuclear War” Exchange Programme organized at CCM, AIIMS on 07.06.2014

Dr Sumit Malhotra received Kalu Ram Memorial award for best paper titled “Trachoma prevalence in hyper-endemic island of Car-Nicobar, India after mass drug administration with azithromycin” presented by young scientist during 42nd Annual National Conference of Indian Association of Preventive and Social Medicine held at Lucknow, 26-28 February 2015; organized a workshop on operational research for faculty and scientists in support with Department of Health Research under Human Resource Development Health Research Scheme. Under this scheme, AIIMS has been identified as the nodal institute for building capacity of health personnel in operational research. He is a resource faculty for the post-graduates course on research methodology conducted by the AIIMS. He attended workshop titled “AIIMS Faculty Development Program: Being a Principal Investigator” from 8-9 August 2014 and AIIMS- University of Michigan advanced research methodology workshop from 01-05 December 2014. He was a resource person for Vocational Courses related to health stream run by Central Board for Secondary Education. He is a reviewer for Indian Journal of Community Medicine, Indian Pediatrics, Public Health Action, International Journal of Medicine and Public Health, Biomed Research International. He was the focal person for coordinating IEC (Information Education Communication) activities related to nutrition at CRHSP Ballabgarh in collaboration with Food and Nutrition Board, Ministry of Women and Child Development. He organized two voluntary blood donation camps at villages Shahupura and Chhainsa under Intensive Field Practice Practice Area of CRHSP Ballabgarh in collaboration with AIIMS Blood Bank. He also coordinated community based teaching through qualitative research projects for the undergraduate students posted at CRHSP Ballabgarh and organized health education events in form of health talks and street plays in project villages chosen by the students on public health topics.

Dr Partha Haldar was Member of the National Working Group for HIV Estimates in India for year 2015, constituted by the National AIDS Control Organization, Ministry of Health and Family Welfare, Government of India; Guest Faculty for Executive Education Programme on the Health Care Analytics- Indian Institute of Management, Bengaluru [Feb-2015]; Member Central Regional Institute constituted at AIIMS, New Delhi for HIV Sentinel Surveillance; As Faculty, attended Refresher Training of Trainers, Integrated Bio-Behavioural Surveillance [Oct 2014], Pre surveillance Workshop for HIV sentinel Surveillance [Dec 2014], Surveillance Workshop at Bihar State AIDS Control Society [Jan 2015]; Capacity Building workshop for HIV Estimations, organized by Ministry of Health and Family Welfare, Government of India, NIMS and UNAIDS; Attended-3rd International Conference of Healthy Ageing in the changing world 2014, Bengaluru [Nov 2014]; Road Map for Patents: Where to start and How to Proceed, organized by AIIMS-NRDC Innovation Facilitation Centre [Sep 2014]. Participated in- Basic Course in Medical and Health Professional's Education, at KL Wig CMET [Mar 2015]; Basic Course in Research Methodology at AIIMS [Aug 2014].

Dr Ravneet Kaur Chaired Oral Paper Session at the '2nd International Conference on Occupational & Environmental Health' held from 26th- 28th Sept, 2014 at New Delhi; Participated in the 'Basic Course in Research Methodology' held at the All India Institute of Medical Sciences on August 8th -9th, 2014; Attended the workshop on 'Writing a Scientific Paper' organized by KL Wig CMET and NMJI on 29th -30th August, 2014; Participated in the Advanced Research Methodology Workshop (AIIMS- University of Michigan Workshop) held from Dec 1st – 5th, 2014; Participated in 'Basic course in Medical and Health Professions' Education' organized by KL Wig CMET from March 25th – 27th, 2015. Reviewer of national and international journals

9.9 Dermatology and Venereology

Professor and Head

Vinod Kumar Sharma

Professors

Neena Khanna
Binod K Khaitan

Kaushal K Verma
Sujay Khandpur

M Ramam
G. Sethuraman

Additional Professors

Somesh Gupta

Assistant Professors

Kanika Sahni

Savita Yadav

Rahul Mahajan

HIGHLIGHTS

The department has many funded projects including International collaboration with University of Michigan, USA for a project funded by NIH titled “Genetic Analysis of Psoriasis and Psoriatic Arthritis in India”. Professor G. Sethuraman is focusing on Pediatric Dermatology with 4 research projects in hand and one has been completed. The faculty has been honored with editorship of journals namely

Dr V.K. Sharma: Section Editor, British Journal of Dermatology

Dr Neena Khanna: Chief Editor, World Clinics in Dermatology

Dr M. Ramam: Chief Editor, Indian Journal of Dermatology, Venereology and Leprology

Dr Sujay Khandpur: Editor, Indian Journal of Dermatopathology and Diagnostic Dermatology

Dr Somesh Gupta: Regional Director of Asia-Pacific Region of International Union against Sexually Transmitted Infections (IUSTI)

Department is running busy OPD services with 88820 cases in morning OPD and 18388 in afternoon clinic and wards with 767 regular admission and 3593 short admissions for pulse therapy and rituximab therapy. Sexually Transmitted Diseases (STD) clinic has been started on Wednesday afternoons under Prof. Kaushal K Verma and Dr. Somesh Gupta. Department has started weekly skin OPD at Ballabgarh seen by Senior resident from the department

EDUCATION

Nine candidates completed M D (Dermatology and Venereology) training and 4 candidates completed short term training 2-4 weeks. The Residents in our department have won the following awards.

Dr Riti Bhatia, Senior Resident

1. Awarded the International Union against STI-Indian Association for the Study of Sexually Transmitted Diseases and AIDS (IUSTI –IASSTD & AIDS) Scholarship award, 2014
2. Awarded the IADVL-WCD Scholarship, 2015
3. Winner of State Leprosy Quiz - 2014 held in the Leprosy workshop in New Delhi
4. Winner of second prize in the National Leprosy Quiz held in the 29th Biennial Conference of Indian Association of Leprologists (LEPCON 2014)

Dr Vishal Gupta, Senior Resident

1. Dr KC Kandhari Book Prize Award in Dermatology and Venereology for the Best Post-Graduate Student of the Year 2013
2. WCD-Scholarship award to attend the 23rd World Congress of Dermatology (WCD, June8-13, 2015) in Vancouver, Canada

Dr Neetu Bhari, Senior Resident

1. Dr K.C Kandhari book prize for best postgraduate October 2014

Dr Kanya and Dr Prakash Kumar Khute, Junior Residents

1. Received 1st prize in Sexually transmitted diseases (STD) quiz held in ASTICON 2014 PGI, Chandigarh

Lectures delivered**V.K. Sharma: 8****Neena Khanna: 4****Kaushal K. Verma: 15****M. Ramam: 10****Binod K. Khaitan: 4****Sujay Khandpur: 7****Somesh Gupta: 4****Kanika Sahni: 1****Rahul Mahajan: 1****Oral papers/posters presented: 9****RESEARCH****Funded projects****Ongoing**

1. Genetic Analysis of Psoriasis and Psoriatic Arthritis in Indians, VK Sharma, NIH, USA, 5 years, 2011-16, Rs.60 lakhs
2. Elucidating FoxP3 expression and FoxP3 promoter DNA methylation levels in active non-segmental generalized vitiligo, VK Sharma, DBT, 4 years, 2011-15, Rs.64 Lakhs
3. Defining the role of genetic, epigenetic and immunological components involved in the pathogenesis of alopecia areata, VK Sharma, ICMR, 3 years, 2015-18, Rs.45 lakhs
4. Defining MiRNA Signatures in vitiligo and skin pigmentation, VK Sharma, IADVL, 1 year, 2015-16, Rs.4.90 lakhs
5. Defining the role of genetic epigenetic and immunological components involved in the Pathogenesis of Alopecia areata, VK Sharma, ICMR, 3 years, 2015-18, Rs.45 lakhs
6. A Phase 3, Multicenter, Three arm, Randomized, Double blind, Active controlled, parallel study to evaluate the Efficacy and Safety of Tretinoin (Microsphere) 0.04% and Clindamycin 1% combination gel in comparison to Tretinoin 0.025% gel and Clindamycin 1% gel in the treatment of Acne Vulgaris." Neena Khanna, Dr. Reddy's Laboratories Ltd, 6 months, 2014-15, Rs.11.29 lakhs.
7. Randomized clinical trial of azathioprine versus methotrexate weekly pulse for the treatment of chronic plaque psoriasis, Kaushal K. Verma, ICMR, 4.3 years, 2010-14, Rs.32 lakhs
8. Comparison of the efficacy of Rituximab infusion and Dexamethasone cyclophosphamide pulse in moderate to severe pemphigus vulgaris, Sujay Khandpur, ICMR, Rs.9.10 Lakhs
9. Comparison of serum and tissue Th1 and Th2 cytokine levels in active and stable psoriasis and correlation with disease activity: Sujay Khandpur, AIIMS, Rs.3.30 lakhs
10. Urologic Evaluation of Dermatologic patients on chronic cyclophosphamide therapy'. Sujay Khandpur, AIIMS, Rs. 1 Lakhs
11. Molecular Analysis of Epidermolysis bullosa, G. Sethuraman, ICMR, 3 years, 2012-15, Rs. 30 Lakhs
12. A comparative study of IHC and IF mapping in the diagnosis of inherited epidermolysis bullosa, G. Sethuraman, DST, 3 years, 2013-16, Rs. 42 Lakhs

Completed

1. Genetic Analysis of Psoriasis and Psoriatic Arthritis in India, VK Sharma, NIH, USA, 3 years, 2010-13, Rs. 68 lakhs
2. Elucidating role Fox₃ promoter DNA methylation Level in active non-segmental Generalized vitiligo, VK Sharma, DBT, 3 years, 2011-14, Rs. 60 lakhs
3. Comparison of clinical efficacy and safety of PUVAsoL and Unani medicine (UNIM-401 orally and UNIM 403 oil for local application) in treatment of chronic plaque psoriasis, Neena Khanna, AYUSH Ministry of Health & Family Welfare, 4 years, 2010-14, Rs.36.48 lakhs

4. Randomized trial of systemic steroids and propranolol in Infantile hemangioma, G. Sethuraman, ICMR, 3 years, 2012-15, Rs.14 lakhs
5. Determination of plasma and urinary levels of catecholamines in patients with vitiligo and their correlation with stability and outcome of melanocyte transplantation, Somesh Gupta, ICMR, 3 years, 2010-13, Rs.10 lakhs
6. The role of immunological factors in determining stability of pigmentation by comparing the levels of immunohistochemical markers in successful & unsuccessful re-pigmentation at 0, 2 weeks, Somesh Gupta, AIIMS, 3 years, 2012-15, Rs.5 lakhs

Departmental projects

Ongoing

1. Elucidating Role of Micro RNA in the Pathogenesis of active generalized vitiligo and in pigmentation
2. Study of Single nucleotide polymorphism in TNF-2, TNFAIP3, TNIP1, TRAF3IP2, IL-17, IL-23, IL12B and HLA-C genes in Indian psoriasis patients and their association with clinical characteristics
3. Assessment of histopathological features of Maculo popular Drug and Viral exanthema in infantile hemangiomas
4. Clinicoepidemiological study of Infantile hemangioma, prevalence of Hypothyroidism in infantile hemangiomas and to determine Prognostic factor determining treatment outcomes in Infantile hemangioma
5. Can suspending NCES transplantation in PRP improve repigmentation in stable vitiligo. A Double blinded randomized controlled study
6. Efficacy of Isotretinoin in lichen Planus pigmentosus randomized single blind placebo controlled trial
7. Dermoscopy in Hyperpigmentation disorders
8. Efficacy and safety of Q-switched Nd Yag laser over modified Kligman formulation in melasma, a randomized controlled study
9. A Study of histopathological features of androgenetic alopecia and alopecia areata by horizontal sections of scalp biopsies
10. Autologous non cultured dermal cell suspension transplantation for correction of facial volume loss
11. A randomized controlled trial to evaluate response to isotretinoin in lichen planus pigmentosus.
12. Perimenstrual eruptions in females
13. Use of methotrexate in pemphigus group of disorders
14. Dermatological manifestations of reactive arthritis
15. Study of contact Sensitizers in Patients with Contact Dermatitis due to cosmetics at a tertiary care centre in India
16. Validation and Comparative Evaluation of Vitiligo Impact Scale in Assessing Psychosocial Burden of Vitiligo
17. A Study of the Histopathological Features of Alopecias on Transverse Sections of Scalp Biopsies
18. Study of occupational contact dermatitis
19. Clinical and histopathological study of Lupus miliaris disseminatus faciei and granulomatous cheilitis
20. Dexamethasone – Cyclophosphamide pulse therapy in pemphigus.
21. A cross-sectional study to assess the correlation between morphology and extent of pigmentary changes and the degree of cutaneous sclerosis and major organ involvement in systemic sclerosis.
22. Assessment of liver fibrosis by ultrasound elastography in patients of psoriasis and Reiter's disease on long term methotrexate therapy.
23. Histological evaluation of palmoplantar psoriasis versus palmoplantar dermatitis
24. Efficacy of pulsed dye laser 595 nm in facial portwine stains.
25. Utility of horizontal sections of scalp biopsies in alopecias
26. Clinico-pathological study of granulomatous cheilitis and lupus miliaris disseminatus faciei

27. Dermoscopic study of alopecia.
28. Study of cytokines, transcription factors, chemokine receptors and their ligands of Th17 and Treg cells in pemphigus vulgaris.
29. Study of T cells and its scavenger receptor in the pathogenesis of pemphigus vulgaris.
30. A split face randomized control study comparing the efficacy and safety of 1064 nm Q-switched Nd-YAG laser in the treatment of melasma compared to topical modified Kligman's formulation
31. A cross-sectional study to assess the correlation between morphology and extent of pigmentary changes in the background of cutaneous sclerosis and major organ involvement in systemic sclerosis.

Completed

1. Elucidating Role of Regulatory T Cells and T-cell Immunoglobulin and mucin containing domain in active generalized vitiligo
2. Prevalence of metabolic syndrome and cardiovascular risk factors in patients with chronic plaque psoriasis in northern India
3. Efficacy and safety of long pulse diode lasers in hair reduction in Indian patients.
4. Assessment of Quality of Life in Indian patients with Genital Herpes
5. A study of knowledge and attitude towards leprosy in people with and without leprosy and measurement of debilitation in leprosy patients
6. A randomized controlled study to evaluate the efficacy of topical tacrolimus ointment versus clobetasol propionate ointment in patients with morphea and lichen sclerosus.
7. A study to validate the clinical criteria for diagnosis of segmental vitiligo
8. A randomized comparative study of the effect of oral corticosteroids and oral azathioprine in progressive non segmental vitiligo.

Collaborative projects

Ongoing

1. Immuno-genetics mechanisms in epilepsy patients taking anti-epileptic medications, Department of Neurology
2. A study to identify the genetic basis of Stevens-Johnson syndrome (SJS), Department of Anatomy
3. Prevalence of *Chlamydia trachomatis* in patients with infertility & urogenital infections and genotyping by PCR-Restriction Fragment Length Polymorphism and Omp A sequencing, Department of Microbiology

Completed

1. Study of Th-1 and Th-2 type cytokine gene polymorphism and their association with Parthenium dermatitis, Department of Dermatology & Venereology and Department of Biochemistry, AIIMS
2. Polarized Immunity in Leprosy: Role of effector and regulatory T cell subsets in shaping host immune response, Department of Transplant Immunity and Immunogenetics

PUBLICATIONS

Journals: 52 Abstracts: 3 Chapters in Books: 15 Books: 3

PATIENT CARE

The department has a 29-bedded ward including two isolation rooms. The total number of admissions from April 2014 to March 2015 was 767 and total short admission for pulse therapy was 3593. The OPD caters to both general dermatology patients (in first half) and special clinics (STD, leprosy, dermatosurgery, Pigmentation, Allergy) and lasers (Diode, carbon dioxide, NdYAG laser, Pulse Dye laser) in afternoon Phototherapy and side lab procedures are conducted in both morning and afternoon. Total number of cases seen in morning OPD in the year was 88820 and in afternoon clinics was 18388. Sexually Transmitted Diseases (STD) clinic has been started on Wednesday afternoons under Prof. Kaushal K Verma and Dr. Somesh Gupta. One Senior Resident is visiting Ballabgarh for skin OPD once a week .

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor V.K. Sharma won Appreciation award for International League of Dermatological Society for outstanding International achievements in the field of Dermatology; Editorial Board of Journal "Dermatitis" official journal of American Society of Contact Dermatitis; Chairman, International Liaison Cell Indian Association of Dermatologists, Venereologists and Leprologists.

Professor Neena Khanna was Member of Mid Term Evaluation of Leprosy control program: WHO assignment.

Professor Kaushal K. Verma was Chair Elect, International Union against Sexually Transmitted Infections-Asia Pacific region (IUSTI-AP); Vice-Chair (South Asia), International Union against Sexually Transmitted Infections- Pacific region (IUSTI-AP); Vice President, Indian Association for Study of Sexually Transmitted Infections and AIDS (IASSTI and AIDS); Contributed to Community service health care program at Ladakh from 24-28 August 2014; Participated as an Expert in live phone-in Show "Total Health" on 27 July 2014 at DD News, Prasar Bharati; Participated as an Expert in live phone-in Health Programme on 20 November 2014 at Doordarshan Kendra, Doordarshan Bhawan, New Delhi; Participated as an Expert in live phone-in Show "Total Health" on 22 January 2015 at DD News, Prasar Bharati, Doordarshan Bhawan; Provided guidance to Ms. Anna Louise Ruddock, Ph D Scholar, King's College, London in her study on the public health care research in India

Professor M. Ramam was Visiting Professor, Department of Dermatology, University of California, San Francisco May 2014

Professor Binod K. Khaitan was Member, Editorial advisory board, IJDVL; delivered D. Haobam Devendra Singh Oration at ANNUAL CUTICON -2014 on 27th and 28th September 2014 at Imphal, Manipur. Topic of the Oration "Segmental Vitiligo"; Chaired the session "Holistic Dermatology" Theme: Interface Psycho Dermatology-The 'extra' edge that matters. ANNUAL CUTICON (DELHI STATE BRANCH) -2014, 7 December 2014, Eros Hotel, Nehru Place, New Delhi.

Professor Sujay Khandpur Was Commonwealth Academic Fellowship 2014 in Photodermatology and Photobiology tenable in UK; Repeated Section Editor on Cutaneous Pathology in Journal of Cutaneous and Aesthetic Surgery Member, Advisory Committee IADVL Text Book; Member, Special Interest Group on Clinical trials and Research Methodology of IADVL; Member, Special Interest Group on Dermatopathology of IADVL; Reviewer of British Journal of Dermatology, Dermatology, Clinical and Experimental Dermatology, Leprosy Review, Indian Pediatrics, Indian Journal of Dermatology; Organizing Secretary, XXXVI International Symposium of International Society of Dermatopathology, November 19-21, 2015, New Delhi

Professor G. Sethuraman won Indian Council of Medical Research: Lala Ram Chand Khandhari Award 2012 (Chouhan K, Sethuraman G*, Gupta N, Sharma VK, et al. Vitamin D deficiency and rickets in children and adolescents with ichthyosiform erythroderma in type IV and V skin. Br J Dermatol 2012; 166: 608-615); AIIMS Research Excellence Award 2014: Commendation Certificate for the following paper (Sethuraman G, Sreenivas V, Yenamandra VK, Gupta N, Sharma VK, Marwaha RK, Bhari N, Irshad M, Kabra M, Thulkar S. Threshold levels of 25(OH)D and parathyroid hormone for impaired bone health in children with congenital Ichthyosis in type IV and V skin. Br J Dermatol. 2014 doi: 10.1111/bjd.13131); Prof Premalatha award for the best original research paper in Dermatology for the year 2014-15 (Sethuraman G, Sreenivas V, Yenamandra VK, Gupta N, Sharma VK, Marwaha RK, Bhari N, Irshad M, Kabra M, Thulkar S. Threshold levels of 25(OH)D and parathyroid hormone for impaired bone health in children with congenital Ichthyosis in type IV and V skin. Br J Dermatol. 2014 doi: 10.1111/bjd.13; Reviewer for the following Journal: BMJ, Br J Dermatol, J Invest Dermatol, JAMA Dermatol, IJDVL, Pediatr Dermatol, Ind J Pediatr

Dr Somesh Gupta Won Dr Arthur Anmuthu Thambiah Award 2014 by National Academy of Medical Sciences; Visited UT Southwestern Medical Center, Dallas, Texas as visiting professor and delivered a lecture during grand round.

Dr Kanika Sahni Was Assistant Editor of Indian Journal of Dermatology Venereology and Leprology; Reviewer for IJDVL, JCAS, IJD, BJD, CED; Participated in the workshop on 'Microteaching' held on 22nd August, 2014 at KL Wig Centre for Medical Education and Technology; Participated in the workshop on 'Writing A Scientific Paper' held on 29-30 August, 2014 held at KL Wig Centre for Medical Education and Technology

Dr Rahul Mahajan Attended the 16th Annual Birmingham Pediatric Dermatology Course from 19th – 23rd May 2014 (CME approved 30 points) and two weeks as clinical observer 24th May – 7th June 2014 at Birmingham Children’s Hospital NHS Foundation Trust, University of Birmingham; Attended “Basic Life support Training” for training in infants, child and adult basic life support and choking protocol and use of bag-valve-mask device on Friday 23rd May 2014; Attended a Level 3 Child Protection Training Course on 23rd May 2014; Worked as an ‘Assistant Editor’ in the Indian Journal of Dermatology, Venereology and Leprology; Member of the ‘Cutaneous tuberculosis’ group involved in formulating the INDEX-TB (Indian Extrapulmonary tuberculosis) guidelines; Participated in the workshop on ‘Microteaching’ held on 22nd August, 2014 at KL Wig Centre for Medical Education and Technology; Participated in the workshop on ‘Writing A Scientific Paper’ held on 29-30 August, 2014 held at KL Wig Centre for Medical Education and Technology

9.10 Emergency Medicine

Professor and Head
Praveen Aggarwal

Professor
L. R. Murmu

Assistant Professor
Mohammed Tahir Ansari

HIGHLIGHTS

The department has been in the forefront of providing round-the-clock, quality emergency care to patients with different types of medical, pediatric and non-traumatic surgical emergencies. Initial emergency care is also provided to patients with any type of trauma. Nearly 1,42,000 patients visited the department in the year 2014-15. The Department has been providing training to its postgraduates in the specialty of Emergency Medicine. The Department also provides teaching and training to undergraduate students, nurses and paramedics in initial care of seriously ill patients. The departmental faculty has actively participated in providing training to the existing and future faculty of Medical Council of India's-recognized colleges in the discipline of Emergency Medicine. At international level, the Department has been actively collaborating with several universities from the USA to organize conferences on Emergency Medicine with the aim of training doctors, nurses and paramedics in this field. Some of these Universities include University of South Florida and SUNY Downstate New York.

EDUCATION

The Faculty organized life support courses for undergraduates and postgraduates posted in the Department. The Department runs a schedule of academic activities for the residents of Emergency Medicine (seminars, journal clubs, case discussions) five times a week. Simulation-based teaching and training 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 one undergraduate student from England.

CONTINUING MEDICAL EDUCATION

Conferences/seminars/workshops organized:

“Advanced Toxicological Life Support” Workshop at the 10th Indo-US Emergency Medicine Summit held at Lucknow, Uttar Pradesh on 17th October, 2014

CMEs/NATIONAL AND INTERNATIONAL CONFERENCES

Lectures Delivered

Praveen Aggarwal: 7

Oral Papers/Posters presented: 5

RESEARCH

Funded projects

Ongoing

1. Role of Newer Cardiac Markers in Risk Stratification of Patients with Acute Coronary Syndrome (ACS) in the Emergency Department, Praveen Aggarwal, ICMR, 2 years, 2014-16, Rs.35.26 Lakhs

Departmental projects

Ongoing

1. Comparative evaluation of biomarkers with clinical severity scores for outcome prediction in patients with sepsis in the emergency department
2. Role of CECT abdomen in decision making in elderly patients presenting to emergency department with acute undifferentiated abdominal pain
3. Role of Cardiac Bio Markers in Risk Stratification of Patients with Acute Coronary Syndrome (ACS) in the Emergency Department
4. Clinico-laboratory and microbiological profile in severe sepsis and septic shock in emergency department
5. Point of care ultrasound in cervical spine injuries
6. Role of wide awake local anaesthesia in Emergency Department
7. Role of serum neutrophil gelatinase associated lipocalin as prognostic marker of severe pancreatitis

Completed

1. Evaluation of Diagnostic Scoring Systems in Patients with Suspected Acute Appendicitis

Collaborative projects

Ongoing

1. Clinical and radiological outcomes of different procedures for neglected Monteggia fracture dislocation, Department of Orthopaedics
2. To elucidate the mechanisms behind documented osteogenic activity of Symphytum officinale in human bone marrow derived mesenchymal stem cells in vitro, Department of Biochemistry
3. Comparison of EMT/MET signatures with stemness in colon carcinoma cell lines and human bone derived mesenchymal stem cells, Department of Biochemistry
4. MRI evaluation of chronic elbow pain, Department of Radiology

PUBLICATIONS

Journals: 14

PATIENT CARE

Details of patient attendance in the Department (2014-15)

Total number of Patients: 1,42,267 (from April 2014 to March 2015)

Total cases done in minor operation theatre: 130

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Praveen Aggarwal continues to be the Chief co-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 & Family Welfare, Government of India and the Dean of the Academic College of Emergency Experts in India. He has been nominated as a member of the Ethics Committee of the Indian Institute of technology, Delhi; a member of the Research Committee of National Accreditation Board for Hospitals and Health Care Providers (NABH); Expert in the area of Biomedical Devices under Indian Council of Medical Research; and member of Panel of Experts constituted by the Ministry of Health & Family Welfare (Emergency Medical relief Division) to develop curriculum for advanced National Emergency Life Support Course for Doctors.

9.11 Endocrinology and Metabolism

Professor and Head

A.C. Ammini (upto 30 June 2014)

Nikhil Tandon (from 1 July 2014)

Professors

Nandita Gupta

Ravinder Goswami

Additional Professors

Rajesh Khadgawat

Viveka P. Jyotsna

Assistant Professor

Mohd Ashraf Ganie

Scientist

M.L. Khurana

HIGHLIGHTS

The Department runs daily outpatient facilities, laboratory services for hormone assays, metabolic studies and bone density measurement. 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. The academic activities include one Seminar (Wednesday), one Journal Club (Friday) and one Clinical class (Thursday) every week. During these academic events the topics of utmost clinical importance and recent high impact articles are discussed.

EDUCATION

Undergraduate, Postgraduate, Paramedical Training

The department is actively involved in teaching undergraduate, postgraduate and postdoctoral medical students and nursing students. Postgraduate students (MD) from Internal Medicine and Geriatric Medicine (MD) come for one or two month postings to the department. The department enrolls DM students and PhD students on regular basis. During the preceding year one candidate completed DM (Endocrinology) and two new candidates joined the department for DM (Endocrinology) course. One PhD student completed her degree, two are in the process of completion and one new student joined PhD course. Five candidates coming from various institutions of the country completed short-term training. In addition the faculty as per the academic roster of the institute takes classes for undergraduate, postgraduate students and nursing students.

Long and Short Term Training

- Five candidates completed short term training.

CMEs/Workshops/Symposia/national and International Conferences

Lectures delivered

Nikhil Tandon: 35

R. Goswami: 4

Rajesh Khadgawat: 14

Viveka P. Jyotsna: 8

Mohd Ashraf Ganie: 11

RESEARCH

Funded projects

Ongoing

1. A phase III randomized, placebo-controlled clinical trial to assess the safety and efficacy of odanacatib (MK 0822) to reduce the risk of fracture in osteoporosis postmenopausal woman treated with vitamin D and calcium, Prof. Nikhil Tandon, MERK & CO., INC., USA, 6 years, 2009-15, Rs. 1.68 crores

2. National alliance program for biodesign and in-vitro diagnostics between Translational Health Science and Technology Institute and All India Institute of Medical Sciences, Prof. Nikhil Tandon, DBT, 5 years, 2010-15, Rs. 35 lakhs
3. ADVANCE: A factorial randomized controlled trial of blood pressure lowering, with a fix low-dose perindopril - indapamide combination and intensive glucose control with a modified – release gliclazide (gliclazide MR) - based regimen for the prevention of vascular diseases among high risk individuals with type 2 diabetes mellitus, Prof. Nikhil Tandon, The George Institute for International Health, Australia, 5 years, 2010-15, Rs. 6.47 lakhs
4. Global health activities in developing countries to combat non-communicable chronic cardiovascular and pulmonary disease (CVPD) – centre of excellence (COE), Prof. Nikhil Tandon, National institute of Health, USA, 5 years, 2011-16, Rs. 41.78 lakhs
5. Glue grant scheme childhood obesity: inflammatory markers, gene variation and epigenetics, an association study in urban and rural areas of north India, Prof. Nikhil Tandon, DBT, 5 years, 2011-16, Rs. 60.91 lakhs
6. Genetic determinants of birth weight and growth trajectory and influence of parental genotype on these anthropometric indicators, Prof. Nikhil Tandon, DBT, 3 years, 2012-15, Rs.1.27Cr
7. Registry of people with diabetes in India with young age at the onset phase II, Prof. Nikhil Tandon, ICMR, 5 years, 2012-17, Rs.93.90 Lakhs
8. Integrated care for co-morbid diabetes and depression, Prof. Nikhil Tandon, National Institute of Mental Health, NIH, USA, 5 years, 2014-19, Rs. 88.22 lakhs
9. A trial comparing cardiovascular safety of insulin degludec versus glargine in subjects with type 2 diabetes at high risk of cardiovascular events, Prof. Nikhil Tandon, Nova Nordisk India Pvt. Ltd., 4 years, 2014-18, Rs. 7.70 lakhs
10. A randomized, double-blind, multicenter, phase III study to evaluate the efficacy and safety of pasireotide LAR in patient with Cushing’s disease, Prof. Nikhil Tandon, Novartis India, 2 years, 2014-16, Rs.11.27 lakhs
11. Solan Surveillance Study, Prof. Nikhil Tandon, ICMR, 2 years, 2014-16, Rs. 48.93 lakhs
12. To assess glycemic variability using continuous glucose monitoring system (CGMS) in patients of Chronic Calcific Pancreatitis with Diabetes with and without exocrine insufficiency: A cross-sectional non-interventional study, Prof. Nikhil Tandon, AIIMS, 2 years, 2014-16, Rs. 5 lakhs
13. Skeletal muscle strength in young Asian Indians Males following vitamin D and calcium supplementation: A randomized controlled clinical trial, Prof. R. Goswami, ICMR, 3 years, 2014-17, Rs. 50 lakhs
14. Assessment of the newer osteogenic molecules-Part II, possibly involved in basal ganglia for calcification, Prof. R. Goswami, AIIMS, 1 year, 2014-15, Rs. 5 lakhs
15. 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, Dr Rajesh Khadgawat, ICMR, 3 years, 2011-15, Rs. 45 lakhs
16. A Study of Clinical, Epidemiological and Environmental Risk Factors Associated with Fragility Hip Fractures in Elderly Asian Indians, Aged e”60 Years, Dr Rajesh Khadgawat, ICMR, 3 years, 2014-16, Rs.33.20 lakhs
17. To study the variability in content strength of commercially available cholecalciferol preparations in India, Dr Rajesh Khadgawat, Indian Society of Bone & Mineral Research (ISBMR), 1 year, 2014-15, Rs.2.50 lakhs
18. Addressing concerns of iodine supplementation with regard to aggravation of Autoimmune Thyroiditis and thyroid dysfunction in Indian school children: Three decades following Universal Salt Iodization (USI), Dr Rajesh Khadgawat, DRDO, Ministry of Defence, GOI, 3 years, 2014-16, Rs.42 lakhs
19. Efficacy and safety of Liraglutide in combination with metformin versus metformin monotherapy on glycemic control in children and adolescents with type 2 diabetes: A 26 weeks double blind randomized, parallel group, placebo controlled multi-centre trial followed by a 26-week open label extension, Dr Rajesh Khadgawat, Novo Nordisk, 2 years, 2014-15, Rs.10 lakhs
20. A randomized double blind placebo controlled parallel group study to evaluate the efficacy and safety of SAR236553 / REGN727 in patients heterozygous familial hypercholesterolemia not adequately controlled with their lipid modifying therapy, Dr Rajesh Khadgawat, Sanofi-Aventis, 3 years, 2014-16, Rs.10 lakhs.

21. Genotype Phenotype correlation in Asian Indian patients with growth hormone deficiency, Dr Viveka P. Jyotsna, Dept. of Science and Technology, 3 years, 2012-15, Rs.22,25 lakhs
22. Menin gene mutations in patients with primary hyperparathyroidism, pancreatic and pituitary tumors and its clinical implications, Dr Viveka P. Jyotsna, AIIMS, 2 years, 2013-15, Rs.10 lakhs
23. Disorders of sexual differentiation(DSD): Clinical, Social, Psychological implications, Dr Viveka P. Jyotsna, ICMR, 2 years, 2014-16, Rs.39.87 Lakhs
24. A Phase II trial to assess the efficacy and safety of pasireotide s.c. alone or in combination with cabergoline in patients with Cushing's disease, Dr Viveka P. Jyotsna, ICMR, 2 years, 2014-15, Rs.10 lakhs
25. Role of inflammation in Indian women with Polycystic ovary syndrome (PCOS) and its modulation by dietary factors, Dr Mohd. Ashraf Ganie, DBT, 3 years, 2013-16, Rs.56.88 lakhs
26. Efficacy and safety of semaglutide once weekly versus insulin glargine once daily as add on to metformin with or without sulphonylurea in insulin native subjects with type 2 diabetes, Dr. Mohd. Ashraf Ganie, Novo Nordisk, 1 year, 2013-14, Rs. 14 lakhs
27. A trial comparing cardiovascular safety of insulin degludec versus insulin glargine in subjects with type 2 diabetes at high risk of cardiovascular events. Multicenter trial, Dr Mohd. Ashraf Ganie, Novo Nordisk, 5 years, 2013-18, Rs. 40 lakhs.
28. Impact of levothyroxine replacement in women with subclinical hypothyroidism and Polycystic ovary syndrome (PCOS), Dr Mohd. Ashraf Ganie, AIIMS, 1 year, 2013-14, Rs. 5 lakhs
29. Health survey of tribal population in Kashmir valley with special reference to magnitude and risk factors of non-communicable disease: A collaborative cross sectional study, Dr. Mohd. Ashraf Ganie, DST, GOI, 3 years, 2013-16, Rs.1.73 Crs.
30. Impact of Genetic polymorphism of ACE, NF- κ B, IL-6 and TNF α on ventricular function & effect of spironolactone therapy on ventricular function in women with polycystic ovary syndrome(PCOS), Dr Mohd. Ashraf Ganie, DST (WOSA), 3 years, 2014-17, Rs. 16 lakhs
31. Quantitation and Comparative Evaluation of Insulin resistance, Proinflammatory and Procoagulant Markers in Drug Naïve versus Oral Contraceptive Pills (OCP'S) Treated PCOS Women, Dr Mohd. Ashraf Ganie, DST, Jammu and Kashmir, 3 years, 2013-16, Rs. 18.50 lakhs
32. Evaluation of genetic variants of ICAM-1, TNF- α , MCP-1, and PAI-1 gene in Kashmiri polycystic ovary syndrome (PCOS) women and Comparative expression analysis of these genes in drug naïve versus oral contraceptive pills (OCP's) treated PCOS women, Dr Mohd. Ashraf Ganie, DST (WOSA), 3 years, 2013-16, Rs. 15.80 lakhs

Completed

1. Th1 and Th2 expression pattern and HLA predisposition in patients with sporadic idiopathic hypoparathyroidism, Prof. R. Goswami, DBT, 3 years, 2011-14, Rs. 44 lakhs
2. Assessment of the molecular factors predisposing basal ganglia for calcification, Prof. R. Goswami, AIIMS, 2 years, 2012-14, Rs. 5 lakhs
3. A phase III, multicenter, Randomized, Parallel Group study of Safety and Efficacy of the LB03002, a Sustained Release Formulation of Human Recombinant Growth Hormone as vs. Sustained Daily therapy with Genotropin in treatment Naïve Children with Growth Failure due to Insufficient Secretion of Endogenous Growth Hormone, Dr Rajesh Khadgawat, LG Pharmaceuticals, 5 years, 2008-13, Euro 50,000/-
4. Efficacy and safety of FIAsp in a basal-bolus regimen versus basal insulin therapy, both in combination with metformin in adult Subjects with type 2 diabetes onset@3 Trial phase: 3a Trial ID: NN1218-4049. Multicenter trial, Dr. Md. Ashraf Ganie, Novo Nordisk, 1 year, 2013-14, Rs.1.80 lakhs.

Departmental projects

Ongoing

1. To assess glycemic variability using continuous glucose monitoring system (CGMS) in patients of Chronic Calcific Pancreatitis with Diabetes with and without exocrine insufficiency: A cross-sectional non-interventional study

2. Effect of oral administration of probiotic preparation VSL#3, a clinically safe mixture of 8 strains of viable live, lyophilized lactic acid bacteria, on the metabolic control in individuals with type-1 diabetes mellitus (T1DM); a randomized, double-blind, placebo controlled trial
3. Estimation of insulin resistance and the prevalence of metabolic syndrome in patients with type 1 diabetes mellitus
4. Prevalence of Non Alcoholic Fatty Liver Disease in patients with Type 1 diabetes mellitus
5. Prevalence of Tuberculosis infection in patients with type 1 diabetes
6. Prevalence of Shoulder peri-arthritis in Patients with type 1 diabetes
7. Expression of antimycobacterial peptide 'Cathelicidin' in patients with type 1 diabetes and its correlation with glycemic control
8. To study the impact of adiposity on serum androgen parameters in apparently healthy male subjects
9. To study determinants of insulin resistance in children and adolescents with obesity
10. Phenotype and radiological correlation in children with growth hormone deficiency
11. Characterization of Neuroendocrine Tumors with Ga68-DOTANOC PET/CT and F18- FDG PET/CT and compare results with histopathology
12. To study the determinants of insulin resistance in Asian Indian children with obesity aged 11-17 years
13. To study pituitary morphometry across different age groups
14. Bone health in patients with Cushing's disease
15. Utility of patient education package in improving foot care in patients with diabetes.
16. Serum B12 levels in diabetes mellitus on metformin compared to those not on metformin: Does metformin intake effect serum B12 levels?
17. Invasive fungal rhinosinusitis in diabetes: Clinical, microbiological and Radiological Profile.
18. Study of gene mutations of (NR5A1, DAX1, DHH, WT1, SRY, DMRT1, SOX9) in patients with 46 XY gonadal dysgenesis and agenesis.
19. Comparative evaluation of Clinical, biochemical, hormonal characteristics with special emphasis on FTO and Omentin 1 gene polymorphism among women with PCOS with or without parental history of diabetes mellitus
20. Study of lipid profile among patients with Cushing's syndrome with or without family history of Diabetes mellitus
21. Study of clinical profile of Ectopic Cushing's syndrome
22. Clinical, biochemical and hormonal predictors of success of IN-VITRO fertilization of infertile women with PCOS
23. Evaluation of non-alcoholic fatty liver disease among young women with Polycystic ovary syndrome and its correlation with insulin sensitivity and body fat distribution
24. Impact of RAAS gene polymorphism and cytokine gene polymorphism on myocardial mass in PCOS women treated with or without spironolactone
25. Prevalence of hsCRP promoter gene polymorphism in women with PCOS and Diabetes mellitus
26. Correlation of IL-6 and TNF alpha polymorphism among women with PCOS treated with OCP's vs. Control women
27. Effect of angiotensin converting enzyme inhibitor on autonomic, vascular and endothelial function in diabetes with newly diagnosed hypertension.
28. Real time quantitative PCR assay for the diagnosis of invasive fungal infections.
29. Assessment of autonomic and vascular function before and after tumor removal in patients with pheochromocytoma.

Completed

1. To study the prevalence of vitamin D deficiency in pregnant women at first and third trimester during the routine care

2. Correlation between first trimester glucose screening & serum insulin levels with development of gestational diabetes mellitus in pregnancy
3. Prevalence of thyroid peroxidase antibody positivity in pregnant Asian-Indian subjects
4. To assess the prevalence of vitamin D deficiency in patients with non-traumatic fracture of hip
5. To study the clinical, biochemical and radiological features of primary hyperparathyroidism: impact of vitamin D nutrition and histopathology
6. 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
7. 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
8. Assessment of arterial stiffness in obese children and adolescents in the age group of 6-18 years
9. To investigate the effects of Vitamin D supplementation on insulin resistance and beta cell functions in Asian Indian Subjects with Polycystic Ovarian Syndrome (PCOS): A pilot study
10. To study the correlation of serum parathyroid hormone level and serum vitamin D with histo-pathological parameters in subjects with Primary Hyperparathyroidism
11. To study the onset of puberty in Indian children and adolescent and effect of BMI on onset of puberty
12. To study the clinical, biochemical and radiological profile of subjects with tumor induced osteomalacia
13. Study of bone health parameters in patients with epilepsy on valproate
14. To study effect of rhythmic breathing on glycemic control, quality of life and cardiac autonomic functions in patients of diabetes in addition to standard treatment of diabetes.
15. Study of awareness of diabetic foot care measures among patients with diabetes visiting Endocrine OPD.
16. Study of prevalence of foot at risk in patients visiting the Endocrine OPD.
17. To correlate reduction in pancreatic parenchyma following pancreatico-duodenectomy with risk of new-onset diabetes using multi-detector row computed tomography imaging volumetry
18. To study the hyperglycemic response in neonates after surgery with and without infiltration of local anesthesia
19. Relation of gestational age, birth weight and serial changes in Body Mass index from birth till adulthood with epidemiological biomarkers of Chronic Kidney Disease in early middle age
20. Prospective surgery to evaluate the impact of bariatric surgery on glucose metabolism - comparison of 1 year laparoscopic roux en Y gastric bypass and laparoscopic sleeve gastrectomy.
21. A study to assess bone health in persons with epilepsy and to evaluate their knowledge related to bone health with an aim of developing a teaching module.
22. Study to investigate relationship between pulmonary functions and endothelial functions in type 2 diabetes mellitus.
23. Tuberculosis treatment outcomes in treatment of diabetes mellitus
24. A comparative study to assess the reproductive health of women with epilepsy with that of the non-epileptic women with a view to develop guidelines on counseling of women with epilepsy.

PUBLICATIONS

Journals: 35 Chapters in Books: 10

PATIENT CARE

The Department of Endocrinology and Metabolism is one of the important clinical super-specialties catering to diseases such as Diabetes mellitus, Polycystic ovary syndrome (PCOS), thyroid dysfunction, pituitary disorders, disorders of adrenal, pancreas, growth, bone, reproduction and sexual differentiation. The department runs daily morning OPD with two specialty clinics viz. Pediatric and Adolescent Endocrinology (PAEC) and Diabetes of Young (DOY). Department runs OPD on all six working days with two specialty clinics, Pediatric & Adolescent Endocrinology clinic, PAEC (Every Monday, 2-5 pm) and Diabetes of Young clinic, DOY (Every Saturday 9 am to 1 pm). In addition to, state of the art hormone and metabolic laboratory, there is one DXA which provide bone

density measurement facilities to patients following both Endocrine and non-endocrine services. In the preceding year the biochemistry and hormone assays are as follows:

Details of Biochemical investigations done in the metabolic laboratory

No	Investigation	Number of samples
1	Blood sugar	15, 774
2	Glycated hemoglobin	12, 072
3	Urine pH	188
4	Osmolality	696
5	Cholesterol	5484
6	Triglyceride	5484
7	HDL	5484
8	LDL	5484

Details of various hormonal investigations done in the departmental laboratory

No	Hormone	Tube assays	No	Hormone	Tube assays
1	T4	9,532	13	VITAMIN D	3747
2	TSH	15,488	14	INSULIN	3197
3	TPO	1569	15	C PEPTIDE	887
4	LH	1672	16	GH	797
5	FSH	1813	17	GAD	217
6	PRL	2075	18	F T4	984
7	CORTISOL	3911	19	IGF 1	348
8	TESTOTERONE	2227	20	E2	171
9	DHEA	718	21	CALCITONIN	9
10	17 OHP	447		TOTAL	54,370

Month wise outpatient attendance of Endocrine clinic in the preceding year (a total of 42531 cases)

Month	New Cases	Old cases	DOY
April 2014	925	2651	140
May 2014	1088	2495	140
June 2014	961	2260	153
July 2014	1056	2658	140
August 2014	954	1879	188
September 2014	1355	2627	140
October 2014	987	1859	145
November 2014	1028	2244	175
December 2014	1081	2283	362
January 2015	984	2038	168
February 2015	1077	2345	104
March 2015	1185	2533	103
Total	12681	27872	1958

A total of 3488 bone Density measurements were done in the last 1 year.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Nikhil Tandon received the Padma Shri – 2015; delivered the OP Gupta Oration - Gujarat Chapter of RSSDI; was President, Endocrine Society of India and President, Indian Society for Bone and Mineral Research

Professor R Goswami received the Golden Jubilee commemorative lecture Award by National Academy of Medical Sciences-2014; delivered the Dr PN Shah Oration, Endocrine Society of India 2014 and was Member Task force on Micronutrients ICMR, New Delhi

Dr Rajesh Khadgawat was Member, ICMR Taskforce study on Childhood obesity - A multicentre study on its measurement and determinants and Guest Editor, Indian J Pediatrics

Dr Mohd. Ashraf Ganie was Appointed Coordinator for Brainstorming meeting of Research on PCOS as an AIIMS-ICMR Collaborative Effort. September 11th 2014 for PCOS task force.

VISITING SCIENTIST

1. Professor Melanie J Davies, Honorary Consultant Diabetologist in the University Hospitals of Leicester NHS Trust, Leicester, UK, and Professor of Diabetes Medicine at the University of Leicester, delivered a talk on “Optimal management of newly diagnosed type 2 diabetes patients” on Thursday, 17th July, 2014.
2. Professor Christian Boitard from INSERM Unit, Hopital Saint Vincent de Paul, Paris France, delivered a lecture titled “T Lymphocytes in Type 1 Diabetes: of Mice and Men on Monday, 19th January.2015.

9.12 Forensic Medicine and Toxicology

Professor and Head

S.K. Gupta

Professors

D.N. Bhardwaj

O.P. Murty

Additional Professors

Millo Tabin

Sanjeev Lalwani (JPNATC)

Adarsh Kumar (JPNATC)

Assistant Professors

Chittaranjan Behera

Kulbhushan Prasad

Abhishek Yadav

Scientist-II

Anupuma Raina

Chemist

A.K. Jaiswal

HIGHLIGHTS

The department is engaged in multiple activities. It is involved in teaching, research, training, medico-legal autopsy, embalming of MLC deaths, casualty work, clinical forensic medicine services, expert opinion in medico-legal cases & court related works. The department is providing expert opinions in referred cases from courts, CBI, Crime branch of different states, NHRC and other investigating agencies. The department is running three laboratory services-Toxicology, DNA Fingerprinting and Histopathology. The computerization of the Post-mortem reports and Medico legal reports were done which is now being issued on A-4 size paper for convenience of all. We are in process of developing forensic radiology and anthropology unit in our department for which the tender process was completed. The automatic biochemical analyzer was installed in the department and is used for academic purpose. The guideline for obtaining dead body from mortuary for cadaveric workshop/research purpose has been prepared and is now followed by all the departments of AIIMS.

EDUCATION

The department is actively engaged in undergraduate and post graduate teaching. There are eight postgraduate (MD) students and three PhD students enrolled in the department. The department is also imparting training in DNA –Fingerprinting and Medical Toxicology to BSc and MSc students of the other universities from all over India. 10 students from different universities were trained for short/long term training in Toxicology Lab.

CMEs/Workshop/Symposium /Conferences

Lectures delivered

Adarsh Kumar: 8

C. Behera: 3

Tabin Millo: 1

Ashok Jaiswal: 4

Anupuma Raina: 7

Oral papers/posters presented: 15 * First Prize at EUROSCICON-2015: 1

RESEARCH

Funded projects

Ongoing

1. Association of Menstruation with completed suicide-A Hospital based case control study, Chittaranjan Behera, AIIMS, 1 year, 2013-15, Rs. 5 lakhs.

Completed

1. Study of Quantitative Determination of Aluminium and Zinc levels as a tool in fatal phosphide poisoning, Adarsh Kumar, AIIMS, 2 years, 2013-15, Rs.2.67 lakhs.

Departmental projects

Ongoing

1. Histopathological and microbiological study of various organs in neurotrauma cases dying of septicemia.
2. A quantitative study of alcohol in post-mortem blood samples with respect to different time interval.
3. Toxicological, biochemical and histopathological findings in sudden death in epilepsy.
4. Toxicological Findings in death due to Hanging reported at Mortuary, AIIMS
5. Study of the variations in injuries on various muscles along with other associated externa and internal injuries of the neck with positional variation of ligature mark in the cases of death due to hanging
6. Study of quantitative determination of aluminum and zinc levels as a tool in fatal phosphide poisoning.
7. Estimation of endogenous production of alcohol in human body by different microbes after death & its relevance to medico-legal issues
8. Toxicological analysis & distribution pattern of different drugs in various biological samples & their neurobiological effects in suicidal deaths
9. Student suicide: A cross sectional descriptive study for South Delhi
10. Histopathological evaluation of burn mark in electrocution deaths
11. Spectrum of cardiovascular and pulmonary histology in sudden cardiac death: An autopsy study
12. Histopathological and biochemical parameters in sudden death: An autopsy study
13. Pathological and biochemical analysis in case of electrocution death

Completed

1. Comparative study of human and non-human long bones by anatomical and radiological methods.
2. Study of tattoo marks in medico-legal autopsy
3. Retrospective study of Medico legal Autopsy Cases where viscera have been preserved reported to Dept. of Forensic Medicine & Toxicology, AIIMS
4. Study of Alleged Medical Negligence cases and the issues thereof

Collaborative projects

Ongoing

1. Anatomical variations of round window niche in human cadaveric temporal bones and its relevance to cochlear implant electrodes insertion, Department of E.N.T, AIIMS, New Delhi.
2. 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, Department of pathology, AIIMS, New Delhi
3. Epithelial-to-Mesenchymal Transitions (EMTs) in Ependymoma, Department of Pathology

Completed

1. An evaluation of the different endoscopic approaches to inner ear, Department of E.N.T, AIIMS, New Delhi

PUBLICATIONS

Journals: 35 Books: 1

PATIENT CARE

1. **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. About **1500** such calls were attended during this period.
2. **Mortuary Services:** A total of **2458 (1641+817-JPNATC)** medico legal autopsies were conducted at mortuary.
3. **Clinical Forensic Medicine:** **626** cases of age estimation, potency and other medico-legal examination brought by investigating officer and referred from court were dealt by the department. About a **dozen** of cases from CBI were dealt by medical board of the department. Subsequent opinions in complicated cases including reference from Casualty etc was offered in total **766 (457+309-JPNATC)** cases.
4. **Summons:** Doctors of the department attended court of law in 884 cases from Delhi and other states
5. **Medical Toxicology:** About **136** tests were performed for various poisons referred from the clinical department of AIIMS, medico-legal cases and in academic cases.
6. **Biochemistry:** **250** tests were conducted on the samples received for academic purpose.
7. **Forensic Pathology:** 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 **98** cases and **542** samples were done during this period.
8. **Embalming facility:** The department is providing embalming facility for MLC cases (Postmortem cases). About **229** cases of embalming were done during this period.
9. **Community services:** The department continues to participate in training program for CBI officials, police officers and public prosecutors from all over the country.
10. **Organ Retrieval for Therapeutic Transplantation:** **118** Corneas were retrieved at mortuary for transplantation by National Eye bank.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Tabin Millo was Awarded Fellowship of International Medical Sciences Academy (FIMSA)

Dr Adarsh Kumar was Awarded Commonwealth Academic Fellowship in Forensic anthropology at CAHID, University of Dundee, Scotland UK for a period of 3 months (12th Jan-11 April); Commendation Certificate by National Human Rights Commission of India on 12th October 2014 on occasion of its foundation day in view of exemplary services by imparting valuable scientific opinions in complicated medico legal issues pertaining to Custodial Death Investigation and advising in many policy matters; Nominated Board Member representing Asia in "International Association of Person Consortium for Progressive Forensic Medicine & Toxicology) for 2014"EUROSCICON-2015 Forensic Forum" on 10th-12th Mar., 2015 at London, UK. Chaired the session on Forensic Anthropology Member; Editorial Board of various journals: International Editorial Board Member- Romanian Journal of Legal Medicine; Associate Editor-Medico legal Update, Journal of Research in Medical Education and Ethics; Web Editor- International Journal of Health Research & Medico legal Practice; Journal of Indian Society of Toxicology; Journal of Punjab Academy of Forensic Medicine & Toxicology; Journal of South India Medicolegal Association; Indian Journal of Community & Family Medicine.

Dr C. Behera received membership of prestigious National Academy of Medical Science (NAMS), New Delhi, on 18th October, 2014 held at, AIIMS, Rishikesh, Uttarakhand.

Dr Abhishek Yadav received Certificate of Appreciation for outstanding contribution to National Eye Bank by Dr. RP Centre, AIIMS, on 29th National Eye Donation Fortnight-2014.

Dr A.K Jaiswal attended the "Practical Gas chromatography" course organized by Agilent Technologies, Life Sciences & Chemical Analysis at Agilent Customer Education Centre, Singapore, from 18 to 21st march 2014.

9.13 Gastroenterology and Human Nutrition

Professor and Head

S.K. Acharya

Professors

Anoop Saraya
Vineet Ahuja

Umesh Kapil

Pramod Garg
Govind K. Makharia

Assistant Professors

Shalimar Baibaswata Nayak

HIGHLIGHTS

The department organized the **5th International Conference of Asian-Oceanic Pancreas Association (AOPA)** at The Hotel Leela, Delhi NCR Gurgaon” on April 18-20, 2014, **World Hepatitis Day** on 28th July 2014. On this occasion, public lectures were organized to increase the awareness of Viral Hepatitis in India, Gastroenterology **Young Masters Meeting (GYM)** at AIIMS, New Delhi on November 8-9, 2014, Update on Recent Developments in the **Management of Hepatitis C** at AIIMS, New Delhi on January 10, 2015. Keeping in mind the recent advances in the treatment of Viral Hepatitis , the Department Organized a **Collaborative Meeting with DNDI India on “Brainstorming Meeting on Innovative Strategy for Hepatitis-C Drug Development”** on 30 January 2015. The faculty of the department continued to be on national and international boards related with education, research and programs.

EDUCATION

The department continued the training program 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.

Long term training: 13 DM candidates and 8 PhD candidates

Short term training: 8 trainees were trained during 2014-15 for 3-6 months duration.

CME/Workshops/Symposia organised by the department

1. 5th International Conference of Asian-Oceanic Pancreas Association (AOPA) at “The Leela, Delhi NCR Gurgaon” on April 18-20, 2014.
2. World Hepatitis Day at the All India Institute of Medical Sciences, New Delhi on July 28, 2014.
3. Gastroenterology Young Masters Meeting (GYM) at the A.I.I.M.S, New Delhi on November 8-9, 2014.
4. Update on Recent Developments in the Management of Hepatitis C at the A.I.I.M.S, New Delhi on January 10, 2015.
5. Organized a Collaborative Meeting with DNDI India on “Brainstorming Meeting on Innovative Strategy for Hepatitis-C Drug Development” on 30th January, 2015.
6. Regional Workshop on Sodium Intake and Iodized Salt held on 29-30 September 2014 at All India Institute of Medical Sciences, New Delhi.
7. 2nd International Workshop on Micronutrients and Child Health (MCHWS-2014)” held from 3rd to 7th November 2014 at All India Institute of Medical Sciences, New Delhi.
8. National Consultation-Cum-Brain Storming Session On “Fortification of Edible Salt with Micronutrients” held on 20th January, 2015.

Lectures delivered**S.K. Acharya: 17****Pramod Garg: 14****Baibaswata Nayak: 1****Anoop Saraya: 4****Govind Makharia: 19****Umesh Kapil: 3****Shalimar: 7****Oral papers/posters presented: 12****RESEARCH****Funded projects****Ongoing**

1. Natural Course of Immunotolerant Patients with chronic HBV infection, S.K. Acharya, MSD (Fulford India), 3 years, 18.03.2010 – 17.03.2013, Rs. 18,79,750.
2. Randomized control trial (RCT) of Transarterial Chemoembolization (TACE) versus TACE and Oral Drug Therapy in the Treatment of Unresectable Hepatocellular Carcinoma, S.K. Acharya, ICMR (HCC sanctioned project), 3 years, 01.01.2012 – 31.12.2014, Rs. 42,27,933.
3. Randomized Control Trial (RCT) of Oral Thalidomide and Capecitabine versus supportive therapy in the treatment of Advanced Hepatocellular Carcinoma (BCLC stage D), S.K. Acharya, ICMR (HCC sanctioned project), 3 years, 01.03.2012 – 28.02.2015, Rs. 14,05,895.
4. Randomized control trial (RCT) of Radiofrequency Ablation (RFA) and Percutaneous acetic acid (PAI) for the treatment of Hepatocellular Carcinoma in patients of cirrhosis. S.K. Acharya, ICMR (HCC sanctioned project), 3 years, 01.03.2012 – 28.02.2015, Rs. 22,98,821.
5. Randomized controlled trial of transarterial chemotherapy (TAC) versus oral thalidomide and Capecitabine in the treatment of Unresectable Hepatocellular carcinoma (BCLC C). S.K. Acharya, ICMR (HCC sanctioned project), 3 years, 01.01.2012- 31.12.2014, Rs. 31,51,663.
6. Pathogenesis in Lean NAFLD, SK Acharya, DST, 3 years, 05.06.2013–04.06.2016, Rs. 48,00,000.
7. J.C. Bose Award, SK Acharya, DST, 5 years, 24.07.2012 – 23.07.2017, Rs. 68,00,000.
8. GS-US-174-0149-A. Randomized, Open – Label, Active – controlled, Superiority Study to Evaluate the Efficacy and Safety of Tenofovir Disoproxil Fumarate (TDF) in Combination with Peginterferon a-2a (PegasysR) versus Standard of Care Tenofovir Disoproxil Fumarate Monotherapy or Peginterferon a-2a Monotherapy for 48 weeks in Non-Cirrhotic Subjects with HBeAg-Positive or HBeAg-Negative Chronic Hepatitis B (CHB), SK Acharya, Gilead Sciences, 2 years, 05.02.2013 – 04.08.2015, Rs. 24,00,000.
9. A Phase 3, Randomized, Double – Blind Study to Evaluate the Safety and Efficacy of Tenofovir Alafenamide (TAF) 25 mg QD versus Tenofovir Disoproxil Fumarate (TDF) 300 mg QD for the Treatment of HBeAg Negative, Chronic Hepatitis B, GS-US- 320-0108. S.K. Acharya, Gilead Sciences Inc. USA, 3 years, 11.02.2014 – 10.02.2017, Rs. 48,93,900.
10. Effect of antioxidant supplementation on pancreatic function and markers of fibrosis in chronic pancreatitis: A randomized Placebo controlled double blind trial, Anoop Saraya, ICMR, 3.5 years, February 2012-August, 2015, Rs. 50 lakhs.
11. Expression of Reg-4 & MUC-4 in patients with carcinoma of pancreas. Anoop Saraya, ICMR, 3 years, November 2013 -October, 2016, Rs. 25 lakhs.
12. Chronic liver disease: Status of micronutrients with special reference to vitamin D and its supplementation on hepatic osteodystrophy – A randomized controlled trial. Anoop Saraya, ICMR, 3 years, December 2013 – November 2016, Rs. 65 lakhs.
13. 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 (1000 meters and above) of Himachal Pradesh, India, Umesh Kapil, Department of Biotechnology, New Delhi, 2 years, March 2013, Rs. 59 Lakhs.
14. Association of Vitamin D and Calcium with Development of Breast Cancer: - A Case Control Study. Umesh Kapil, Indian Council of Medical Research, New Delhi, 2 years, October 2013, Rs. 39 Lakhs.

15. Assessment of Nutritional, Morbidity Status and Utilization of Health Care Facilities in the Elderly Population Aged 60 Years and Above. Umesh Kapil, Indian Council of Medical Research, New Delhi, 2 years, February 2015, Rs. 22 Lakhs.
16. 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, Umesh Kapil, Indian Council of Medical Research, New Delhi, 2 years, November 2014, Rs. 39 Lakhs.
17. Genome Wide Association Study of Chronic Pancreatitis. Pramod Garg, DBT, 3 years, 2012-15, Rs. 1.63 crores.
18. A study of SPINK-1, Cathepsin B and CFTR gene mutation as risk factors for gallstone induced acute pancreatitis. Pramod Garg, ICMR, 3 years, 2011-14, Rs.27 Lacs.
19. The Role of Endoplasmic Reticulum Stress in the Pathogenesis of Caerulein Induced Acute Pancreatitis in Mice and the Effect of Chemical Chaperones on the Severity of Acute Pancreatitis". Pramod Garg, ICMR, 3 years, 2013-16, Rs. 45 lacs.
20. Genomic and Epigenomic Expression in Gallbladder Cancer. Pramod Garg, AIIMS, 2 years, Rs. 10 lacs.
21. Human Gastrointestinal Immunology Translational Program. Vineet Ahuja, Department of Biotechnology, 3 years, December 2014-17, Rs. 78 lacs.
22. Vitamin A is the "microenvironmental cue" for triggering disease activity in patients with Inflammatory Bowel disease (Ulcerative colitis , Crohn's Disease). Vineet Ahuja, Department of Biotechnology, 3 years, March 2013-16, Rs. 82 lacs.
23. Indo US Joint R&D network centre of excellence on Inflammatory Bowel Diseases. Vineet Ahuja, Indo US Science and Technology Forum, 2 years, March 2013-15, Rs. 57 lakhs
24. Phase III Multicenter trial for evaluating integrin inhibitor in Ulcerative colitis and Crohn's Disease. Vineet Ahuja, Millenium Pharmaceuticals , Boston, 7 years, 2008-2015, Rs. 27 Lakhs.
25. Comparative gut eukaryotic microbiome in inflammatory bowel disease: Search for a common link in genetically similar population residing in areas with differing disease prevalence. Vineet Ahuja, DST – UKERI, 2 years, April 2015- March 2017, Rs. 21.5 lakhs.
26. Biomarker(s) for assessment of villous abnormalities in patients with celiac disease and other enteropathies. Govind Makharia, DST, 3 years, 2014-17, Rs. 64 lacs.
27. Patho-physiology of paracellular permeability and tight junctions in the first degree relatives of patients with celiac disease. Govind Makharia, DBT, 4 years, 2011-14, Rs. 43 lacs.
28. Identification and characterization of peptides in selected wheat cultivars which are less immunogenic to patients with Celiac disease. In collaboration with Indian Agriculture Research Institute (IARI), National Research Center on Plant Biotechnology, National Institute of Immunology (NII). Govind Makharia (Coordinator), DBT, 1 year, 2014-15, Rs. 3.24 lacs.
29. Exploration for development of wheat with low immunogenic gluten. In collaboration with Indian Agriculture Research Institute (IARI), National Research Center on Plant Biotechnology , Natioanl Institute of Immunology (NII). Govind Makharia, I.C.A.R, Rs.49 lacs.
30. Effect of IL 28B gene polymorphism on outcomes of Hepatitis C virus therapy in Indian patients. B. Nayak, AIIMS Intramural, 2013-2015, Rs.5 lacs.
31. An inexpensive and rapid diagnostic method for detection of HCV RNA by LAMP. Shyam Prakash, DBT 2013, 2013-2016, Rs. 24.75 Lacs.
32. To study the pathogenesis of Non Alcoholic Fatty liver disease in Indian Population. S.K Acharya, DST-2013, 2013-2016, Rs. 27 Lacs.
33. Diabetes - Liver Disease Embrace: A cross sectional multicentric study to explore the effect of diabetes on short term outcome of acute and chronic liver disease. Shalimar, Liver Foundation, 01.06.2014 to 31.05.2017, Rs. 1008000/-

Completed

1. Identification of biomarker (s) for differentiation of Crohn's disease from intestinal tuberculosis using proteomic. S.K. Acharya, DBT, 3 years, 24.10.2008 – 23.10.2011, Rs. 43 lakhs.
2. Probiotics for spontaneous Bacterial Peritonitis. S.K. Acharya, CD Pharma.
3. Iodine Status of Pregnant Mothers, School Age Children and Neonatal Thyroid Stimulating hormone concentration in three regions of Himachal Pradesh, India. Umesh Kapil, 2years, 1st April 2011 to 7th October 2014, Rs. 71 Lakhs.
4. Status of procurement, distribution and management system of zinc dispersible tablets, IFA tablet/liquid and VA supplements in Uttar Pradesh, Maharashtra, Himachal Pradesh, Kerala and Rajasthan states of India. Umesh Kapil, Indian Council of Medical Research, New Delhi, 2 years, 1st April 2012 to 31st March 2015, Rs. 29 Lakhs.
5. Validation of Mid Upper Arm Circumference (MUAC) for Detecting Severe Acute Malnutrition against Weight for Height Below -3 SD Using as Gold Standard in Children Aged 6-59 Months. Umesh Kapil, Indian Council of Medical Research, New Delhi, 2 years, 1st April 2012 to 31st July 2014, Rs. 54 Lakhs.
6. Iodine Status in Three Regions of Uttarakhand State, India. Umesh Kapil, Indian Council of Medical Research, New Delhi, 2 years, 1st April 2012 to 30th September 2014, Rs. 60 Lakhs.
7. Zoonotic potential of Mycobacterium aviumparatuberculosis (MAP) in Human Ulcero-constrictive Ileocaecal Disease. Vineet Ahuja, ICMR, 3 years, March 2011-14, Rs. 57 lacs.
8. Small intestinal and whole gut metagenome in patients with celiac disease, their first degree relatives and controls. Govind Makharia, DBT, 4 years, 2010-14, Rs.14.6 lacs.
9. A multi-center study on treatment of abdominal tuberculosis (intestinal or peritoneal): A randomized controlled trial of 6-months and 9 months of directly observed therapy under Revised National Tuberculosis Control program. Govind Makharia, Central TB Division, Ministry of Health and Family welfare, 6 years, 2008-14, Rs. 57 lacs.
10. Prevalence of celiac disease in indigenous populations of southern, northern, and north-eastern parts of India and identification of reasons for difference in its prevalence. Govind Makharia, I.C.M.R, 2 years, 2011-13, Rs.74 lacs.

Departmental projects

Ongoing

1. HBeAg –ve chronic hepatitis B Magnitude, Viral & host characteristics.
2. Immunotolerant chronic HBV infection: Natural course.
3. Neutrophilic functions in ALF.
4. Comparison of various scoring systems and biochemical markers in predicting the outcome in Acute pancreatitis.
5. To assess the natural history of chronic pancreatitis.
6. To study the intestinal permeability in patients with acute pancreatitis.
7. To compare efficacy of NIV vs conventional mechanical ventilation in grade 2 & grade 3 respiratory failure in acute pancreatitis.
8. Detection of IFABP (intestinal fatty acid binding protein) and citruline in patients with severe acute pancreatitis.
9. Clinical significance of epithelial cell adhesion molecule (EpCAM) in esophageal cancer.
10. Study on prognostic significance of DNA methylation pattern in patients with carcinoma of pancreas.
11. Frequency, natural course, and predictors of resolution of acute fluid collections in acute pancreatitis.
12. Frequency, cause and impact of intra-abdominal hypertension in acute pancreatitis.
13. Whether early onset organ failure predisposes to subsequent development of infected pancreatic necrosis in patients with severe acute pancreatitis?

14. Prevalence of Colorectal cancer in IBD and cancer surveillance techniques.
15. Visceral fat as a marker of inflammation and disease severity in Crohn's Disease.
16. Urinary sodium and potassium as biomarkers of inflammation in IBD.
17. Predicting outcomes in acute severe colitis.
18. Relationship of high salt diet with H.pylori induced gastric inflammation and premalignant lesions of gastric cancer in high altitude inhabitants with dyspepsia.
19. Prevalence of eosinophilic esophagitis in patients with GERD: A cross sectional study. (DM thesis).
20. Adherence to gluten-free diet and barriers to adherence in patients with celiac disease (DM thesis).
21. Assessment of adherence to gluten free diet and quality of life in patients with celiac disease (DM thesis).
22. Role of microRNA as biomarker and its modulation in HCC targeting mTOR pathway.
23. Role of C-Reactive protein (CRP) in predicting response to loco-regional therapy of HCC.
24. Assessment of cytokine profile in an open labeled randomized controlled trial of standard dose vs. once a day intravenous albumin in patients with spontaneous bacterial peritonitis.
25. Efficacy and Safety of TenofovirDisoproxilFumarate/TDF in Indians with Chronic Hepatitis B.
26. To study the pathophysiological changes in patients with acute on chronic liver failure.
27. Neutrophil function in Acute Liver Failure" for obtaining ethical clearance.
28. Effect of different etiologies on the outcome and long term survival of acute liver failure.
29. Role of acute phase proteins for assessment of response following loco regional therapy in patients with hepatocellular carcinoma.
30. Hepatitis B virus breakthrough in chronic hepatitis patients on Nucleos(t)ide analog therapy and its effect on HBV polymerase activity.
31. Clinical relevance of Human leukocyte antigen (HLA-G) molecules and its polymorphism in Hepatocellular carcinoma.
32. Role of C-Reactive protein for assessment of response to locoregional Therapy in HCC.
33. Effect of etiologies on the outcome and long term survival of Acute Liver Failure.
34. Long term outcomes of Hepatic Venous Outflow Tract Obstruction.
35. Correlation of Hepatic fat content and angiographic coronary artery stenosis.

Completed

1. Predictors of Response in CH-C in Indian population.
2. Correlation of arterial ammonia with sepsis in acute liver failure.
3. Mutation Profile of HBV strains circulating in North Indian Population.
4. Acute on chronic liver failure due to hepatic insult.
5. Effect of carvedilol + EVL vs propranolol + EVL in reduction of HVPG at 6 weeks in patients of cirrhosis presenting with first episode of variceal bleed.
6. Recovery of exocrine and endocrine function in severe acute pancreatitis.
7. Prevalence of multidrug resistant tuberculosis in Intestinal tuberculosis.
8. Pregnancy outcomes and effect of pregnancy on disease outcome in IBD.
9. Familial prevalence amongst first-degree relatives of patients with celiac disease.
10. Prevalence of celiac disease in first and second relatives of patients with celiac disease: A meta-analysis.
11. Infertility in celiac disease: A meta-analysis.

Collaborative projects

Ongoing

1. A randomized trial of endoscopic versus laparoscopic drainage of pancreatic pseudocysts. Department of Surgery.
2. A randomized trial of surgery versus endoscopic therapy for chronic pancreatitis. Collaborative department. Department of GI Surgery.
3. Effect of anti-inflammatory drugs on duct ligation and Na-Taurocholate model of experimental acute pancreatitis in rats.
4. Role of enteric nervous system neuromediators in pathogenesis of ulcerative colitis and irritable bowel syndrome. School of Life Sciences, Jawaharlal Nehru University, New Delhi.
5. Functional analysis of susceptibility genes of IBD. School of Life Sciences, Jawaharlal Nehru University, New Delhi.
6. Exploring the role of dysregulated miRNA in the pathogenesis of ulcerative colitis. School of Life Sciences, Jawaharlal Nehru University, New Delhi.
7. Th9 responses and dendritic cells in IBD. Translational Health Sciences and Technology Institute (THSTI), Faridabad.
8. Th1 and Th17 responses in microdomains of Ulcerative colitis and Crohn's disease . Translational Health Sciences and Technology Institute (THSTI), Faridabad.
9. Expression Profiling of Inflammatory and sumoylation pathway genes in patients with colon cancer and inflammatory bowel disease. Translational Health Sciences and Technology Institute (THSTI), Faridabad.
10. M1 and M2 subtypes of tissue macrophages and spatial distribution in mucosal granulomas of Int TB and Crohns' disease. ICGEB, New Delhi.
11. A study of apoptotic marker in early and advance villous atrophy in patients with celiac disease. Department of Pathology.
12. Prevalence of gluten-related disorders in patients with sporadic cerebellar ataxia. Department of Neurology.
13. Feasibility and short-term efficacy study of a novel device designed to manage fecal incontinence in hospitalized bed-ridden patients. Stanford Bio design, India, AIIMS
14. Impact of bariatric surgery on oxidative stress and pro-anti inflammatory pathways in Non-alcoholic fatty liver disease of morbidly obese patients. Department of Surgical Disciplines, AIIMS.
15. Correlation of Hepatic fat content and angiographic coronary artery stenosis. Department of Cardiology, VMCC and Safdarjang Hospital.
16. Comparison of combination therapy of corticosteroids and Bovine colostrum versus Corticosteroids and Placebo: A Multicentre, Randomized, Double blind, Placebo controlled Trial in treatment of alcoholic hepatitis 'in Extremis'. Department of Gastroenterology, Dayanand Medical College and Hospital, Ludhiana.G.B. Pant Hospital, New Delhi;Global Hospital, Hyderabad.
17. Correlation between Serum Biomarkers, Dynamic Contrast-Enhanced Magnetic Resonance Imaging & Histopathology in Paediatric Osteosarcomas. Department of Orthopaedics.

Completed

1. Susceptibility genes in Inflammatory Bowel Disease and their association with microflora. Translational Health Sciences and technology Institute (THSTI), Faridabad.
2. Analysis of mucosal gene expression in inflammatory bowel disease. Translational Health Sciences and technology Institute (THSTI), Faridabad.
3. Assesment of differences between fecal microbiota of Inflammatory Bowel Disease patients and healthy controls. Translational Health Sciences and technology Institute (THSTI), Faridabad.
4. Prevalance of TPMT polymorphism in Ulcerative colitis patients and healthy voolteers in Indian population. Translational Health Sciences and technology Institute (THSTI), Faridabad.

5. MicroRNA (miRNA) expression profiling in colonic mucosa of Ulcerative Colitis patients in different stages and conditions of disease. Translational Health Sciences and technology Institute (THSTI), Faridabad.
6. Prevalence of celiac disease in IgA nephropathy. Department of Nephrology and Pathology.
7. Recovery of intestinal histology changes after gluten free diet in patients with celiac disease. Department of Pathology
8. Detection, identification and molecular characterization of Intestinal coccidia and Microsporidia in patients with chronic diarrhea and malabsorption syndrome. Department of Microbiology, (PhD thesis).
9. Development of molecular diagnostic probe for the detection of *Cryptosporidium* species and further characterization of the parasite in patients. Department of Microbiology, PhD thesis.
10. Detection of Blastocystishominis in the patients of irritable bowel syndrome and their subtyping. Department of Microbiology, MD thesis.
11. Recovery of intestinal histology changes after gluten free diet in patients with celiac disease. Department of Pathology.

PUBLICATIONS

Journals: 76 Abstracts: 13 Chapters in books: 7 Books: 1

PATIENT CARE

Special clinics

Name of the clinic	New cases	Old cases
Liver Clinic	1118	13202
Pancreas clinic	580	2415
IBD & Ulcer Clinic	2195	4807
Interventional Clinic	272	407
Celiac Clinic	117	552

Routine GE Clinic

New cases: 22080 Old cases: 31262

List of procedures

Diagnostic and therapeutic endoscopies:	20265
Diagnostic and therapeutic colonoscopies:	3610
Diagnostic sigmoidoscopies:	3350
EST & EVL:	5370
Sideviewing endoscopies:	952
Endoscopic retrograde cholangiopancreatography (ERCP):	3015
Endoscopic ultrasound (Diagnostic and therapeutic):	795

Tests done in the department

1. Hepatitis B virus quantitation by Realtime PCR	4737
2. Hepatitis B virus genotyping by Sequencing	45
3. Hepatitis B virus resistance profiling by Sequencing	45
4. Hepatitis C virus quantitation by realtime PCR	1108
5. Hepatitis C virus genotyping by Sequencing	45
6. Hepatitis E virus detection by RT- PCR	125

7. IL28b rs8099917 genotyping by realtime ARMS PCR	252
8. IL28b rs12979860 genotyping by realtime ARMS PCR	252
9. CFTR multiplex genotyping by Fragment analysis	400
10. Cathepsin B multiplex genotyping by Fragment analysis	400
11. Mycobacterium paratuberculosis by realtime PCR	146
12. Lipid peroxidation (MDA) by spectrophotometry	95
13. Free radical Antioxidant potential (FRAP) by colorimetry	95
14. Vitamin C by spectrophotometry	70
15. Superoxide dismutase by kinetic method	70
16. Serum Ceruloplasmin by immunoturbidometry	850
17. Serum Copper by colorimetry	825
18. 24 hr Urinary copper by colorimetry	312
19. Serum IgG4 by Nephelometry	10
20. hsCRP by ELISA	73
21. Serum Insulin by ELISA	144
22. Endotoxin by LAL assay	50
23. IL1beta by ELISA	60
24. IL6 by ELISA	56
25. TNFalpha by ELISA	58
26. Blood ammonia	426
27. Prothrombin time	7832
28. D-Xylose photometric assay	354
29. Fecal Chymotrypsin by kinetic reaction	144
30. Fecal Fat	240
31. Hydrogen Breath Test	1233
32. Fecal elastase by ELISA	366
33. C Reactive Protein by ELISA	240
34. TGF-Beta	240
35. TNF-alpha	240
36. PDGF-BB	240
37. IL-6	240
38. GAD antibody	80
39. Smooth Muscle Active	320
40. Urinary isoprostase	240

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor S.K. Acharya was selected as member of board of ‘Science & Engineering Research Board under DST, Govt. of India, appointed as member of Selection Committee of Jodhpur AIIMS

Professor Umesh Kapil elected as Regional Councilor for South East Asian Countries of International Epidemiological Association (IEA) , Member of Committee for National Operational Research Group constituted by Ministry of Health & Family Welfare, Government of India, New Delhi, nominated Member of project committee for the effective monitoring of the proposals submitted to BIRAC, nominated Member of the Advisory Panel of National Academy of Medical Sciences (NAMS) in the discipline of Nutrition for Fellowship of the Academy for the year 2014

Professor Pramod Garg awarded Fellowship of the National Academy of Science (**FNASc**), Allahabad, India 2014, Fellowship of National Academy of Medical Sciences (**FAMS**), India 2014, Continuing to be as Associate Editor of an international journal “Pancreatology” (5-year impact factor 2.39), appointed Secretary Elect and Executive Council Member, International Association of Pancreatology since 2014, Honorary Secretary, Indian Pancreas Club since 2014, delivered CM Habibullah Oration by Indian Society of Gastroenterology in 2014, Boston Scientific Oration by Society of Gastrointestinal Endoscopy of India in 2013.

Professor Vineet Ahuja was awarded Silver Medal in 5th APTC Conference, Kobe, Japan, October 2014, awarded ISG ZyduSAlidac Oration at Annual Conference of ISG 2014

Professor Govind Makharia was nominated to be Governing Body member of Central Council for Research on Ayurvedic Sciences, nominated as the Chairman of Asia Pacific Association of Gastroenterology Working Party on Celiac Disease; Nominated as Executive member of World Digestive Health Day 2015, World Gastroenterology Organization; Continue to be member of Asia Pacific Working Party on Colorectal cancer and Polyps; Continue to be Core Member of Asia Pacific Working party on Inflammatory Bowel Disease; Continue to be the treasurer of Indian Society of Gastroenterology; Continue to be the treasurer of Indian Society of Evidence Based Medicine; Continue to be the Governing Council of Functional Disease and Motility Disorders of India; Continue to be an Editorial board member of Indian Society of Gastroenterology; Continue to be the Coordinator, Indian Society of Gastroenterology: Young Clinician Program; Coordinator Indian Society of Gastroenterology: Continues to be Invited to be the Editor in Chief, Frontiers in Medicine (Gastroenterology); Organized a World Gastroenterology Organization and Asia Pacific Association of Gastroenterology Working Party meeting on Celiac Disease in Asia-Pacific region, Organized Young Clinician Program in Jaipur on behalf of Indian Society of Gastroenterology.

Dr Baibaswata Nayak is nominated the reviewer of journals: Biochemistry and Biotechnology Research, Drug Research, Tropical Gastroenterology, Indian Journal of Virology, PLoS One, Virus Research, Virology Journal, Viral Immunology, and Journal of Veterinary Science. He is also reviewer for ICMR STS expert group.

VISITING SCIENTISTS

1. Professor Geer D. Haens, Dept. of Gastroenterology, University of Amsterdam, Amsterdam visited the department on 21st August, 2014.
2. Dr Rohit Loomba, Assoc. Prof. of Clinical Medicine, University of California, San Diego, USA visited the department on 4th March, 2015.
3. Professor Chris Mulder, VU Medical Centre, Amsterdam visited the department on 23rd March, 2015.

9.14 Gastrointestinal Surgery and Liver Transplantation

Professor and Head

Peush Sahni

Additional Professors

Sujoy Pal Nihar Ranjan Dash

Assistant Professor

Rajesh Panwar (Contract)

HIGHLIGHTS

The department organized the **8th IHPBA Indian Chapter Certificate Course**. This 6 day program aimed at providing state-of-the-art knowledge in HPB surgery to young surgeons already registered in the MCh/DNB/fellowship courses in GI and HPB surgery and Liver transplantation all over the country. The course had 3 half day sessions dedicated to liver transplantation/liver surgery and portal hypertension, 3 half day sessions for pancreatic diseases and surgery and 3 half day sessions for benign and malignant diseases of the gall bladder and biliary tree. In addition there were 2 workshops: (i) Doing, appraising and presenting medical research and (ii) cadaveric organ retrieval demonstration workshop demonstrating multiorgan harvesting, liver splitting and small bowel retrieval.

EDUCATION

The department of Gastrointestinal Surgery and Liver Transplantation is actively involved in the teaching of undergraduate students. The department offers 3 year super specialty training leading to an award of degree of MCh in Gastrointestinal Surgery. There are 15 MCh students in the department. The department also offers short term observership for a period of one to three months. Starting from last year, the department is providing one year long term training to one MCh student from Nepal every year. The weekly academic activities include morbidity and mortality meet, pubmed abstract presentation, 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 histopathology conference is held once in two weeks.

CMEs/Workshops/Symposia/National and International Conferences

1. Organised the “Hepato-pancreato-biliary Surgery Workshop & 8th IHPBA Indian Chapter Certificate Course”; 13th 18th August 2014. Lecture theatre I, AIIMS, New Delhi

Lectures delivered

Peush Sahni: 64

Sujoy Pal: 11

Nihar Ranjan Dash: 2

Rajesh Panwar: 1

Oral papers/posters presented: 18

RESEARCH

Funded projects

Ongoing

1. 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. Dr Sujoy Pal. AIIMS. 3 years. 2012-2015. Rs 5,00,000
2. RCT on skin preparation with chlorhexidine alcohol vs. savlon/betadine in elective gastrointestinal surgery. Dr Peush Sahni. AIIMS. 3 years. 2012-2015. Rs 1,50,000
3. Esophageal resection vs. bypass in patients with corrosive stricture of the esophagus requiring surgery. Dr NR Dash. AIIMS. 3 years. 2012-2015. Rs1,50,000
4. Development of low cost device for non-invasive management of incontinence (faecal/urinary). Dr Peush Sahni. DST. 3 years. 2012-15. Rs 21,60,000

Departmental projects

Ongoing

1. Hypersplenism in patients with Extrahepatic portal venous obstruction – its correlation with splenomegaly and severity of portal hypertension and course following surgery
2. A prospective observational and intervention study to evaluate the burden of infections and effect of implementation of an antibiotic policy in the department of GI surgery
3. Predictive risk factors for poor surgical outcome in patients with inflammatory bowel disease (IBD) who have undergone an ileal pouch anal anastomosis (IPAA)
4. Evaluation of a Peri-Operative Low Dose Steroid Regimen for Steroid Treated Inflammatory Bowel Disease patients - A Prospective Randomised Study
5. Evaluation of the benefits of an Enhanced Recovery After Surgery (ERAS) protocol in patients undergoing proximal splenorenal shunt surgery
6. Posterior (SMA- first) Approach vs. standard pancreatoduodenectomy in patients with periampullary tumours and pancreatic cancer with special focus on circumferential resection margins and medium term survival outcome: a prospective randomized controlled trial
7. Safety and efficacy of unilateral versus bilateral percutaneous transhepatic biliary drainage in the management of patients with malignant obstruction of the biliary hilum: A randomized controlled study.
8. Assessment of long term quality of lifefollowing oesophagectomy in patients with carcinoma oesophagus
9. Correlation of intraoperative events with postoperative outcomes and quality of life in patients undergoing gastrointestinal surgery
10. An observational study of portal vein embolization in patients with hepatobiliary malignancies
11. Prospective validation of Comprehensive complication index (CCI) in patients undergoing gastrointestinal and hepatobiliary procedures

Completed

1. Role of PET-CT in response evaluation following neoadjuvant therapy and assessment of distant metastases in patients with carcinoma gallbladder
2. Effect of preoperative skin preparation with chlorhexidine-alcohol versus chlorhexidine-cetrimide followed by povidone iodine on the postoperative surgical wound infection rates: A randomized trial
3. Follow up of consecutive pancreaticoduodenectomies performed at a single tertiary centre since 1985
4. Incidence of deep vein thrombosis (DVT) in major gastrointestinal surgery: A prospective observational study
5. Prospective evaluation of positron emission tomography - computed tomography (PET-CT) in preoperative staging of oesophageal carcinoma
6. Effect of Anti-Cytokine Therapy on Severity of Experimental Acute Pancreatitis in Rats
7. Surgical Management of Chronic Pancreatitis: A retrospective study

Collaborative projects

Ongoing

1. Endoscopic Versus Surgical Treatment Of Chronic Pancreatitis – A Comparison Of Outcomes. Gastroenterology
2. Percutaneous Transhepatic Biliary Drainage for Obstructive Jaundice: Assessment of Outcome and Quality of Life. With department of Radiodiagnosis, AIIMS
3. Gemcitabine and oxaliplatin vs Gemcitabine and capecitabine in unresectable carcinoma gall bladder with obstructive jaundice post PTBD/Stenting (PTBD or ERCP): A Randomized Controlled Study. With department of Medical Oncology AIIMS
4. An observational study of portal vein embolization in patients with hepatobiliary malignancies. With department of Radiodiagnosis, AIIMS .

Completed

1. Palliative stenting with radiotherapy versus stenting with chemoradiotherapy for inoperable oesophageal carcinoma: A randomized trial. With department of Gastroenterology & Medical oncology.
2. Role of MDCT with CT oesography in patients with oesophageal tumours. With department of Radiodiagnosis.
3. To correlate reduction in pancreatic parenchyma following pancreaticoduodenectomy with the new-onset diabetes using multidetector row computed tomography imaging volumetry. With department of Radiodiagnosis.

PUBLICATIONS

Journals: 13

Abstracts: 19

Chapters in Books: 2

Books: 1

PATIENT CARE

OPD

Total number of new patients seen: **2323**

Total number of old patients seen: **8875**

Specialty clinics

Department has started a daily clinic for stoma patients.

Special laboratory facilities

Anal manometry, Oesophageal manometry, 24-hour ambulatory oesophageal pH monitoring, Endotraining lab.

Inpatients

Total Surgical procedures: 614

Elective: 385

Emergencies: 229

Special Interest areas

Biliary obstruction:	120	Portal hypertension:	30
Oesophageal cancer:	39	Carcinoma gall bladder:	40
Ulcerative colitis:	59	Upper GI haemorrhage:	13
Lower GI haemorrhage:	16	Acute pancreatitis:	27
Chronic pancreatitis:	22	Biliary strictures:	20
Pancreato-duodenectomy:	51	Liver resections:	50

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Peush Sahni continues as representative of the World Association of Medical Editors (WAME) at the International Committee of Medical Journal Editors (ICMJE). He is Editor of The National Medical Journal of India and Associate Editor of G. I. Surgery Annual. He continues as Member of Specialty Board (Surgical Gastroenterology), National Board of Examination. He was also co-opted member of the Executive Committee of the Indian Association of Surgical Gastroenterology as the Past Secretary and Member, Education Committee, Indian Association of Surgical Gastroenterology. He is also President, Indian Association of Medical Journal Editors.

Dr Sujoy Pal was member of the executive committee, Indian Association of Surgical Gastroenterology and Member, Program Committee, Indian Association of Surgical Gastroenterology.

Dr Nihar Ranjan Dash was re-elected for the fifth time as President, The Ostomy Society, a registered society for welfare of the stoma patients. He organized public and staff awareness program and interactive sessions and field visits in Delhi and NCR to create public awareness on "How to live happily with a stoma and its acceptance in society". He visited the department of Surgery in Oregon Health Science University, Portland, USA as a visiting and operating surgeon from 25th September 2014 to 7th October 2014. He is a Guest editor of "Biomed Research International" Journal and reviewer of "European Journal of Radiology" and "Tropical Gastroenterology"

VISITING SCIENTIST

1. Professor Pierre Alain Clavien, Director of Department of Visceral Transplantation and HPB surgery, University of Zurich, Switzerland, presented a state of the art lecture on Liver regeneration on 20.3.2015.

9.15 Geriatric Medicine

Professor and Head

A. B. Dey

Assistant Professor

Avinash Chakrawarty

Prashun Chatterjee

HIGHLIGHTS

The department is a center of excellence in education, research and health service for older people in India. The Ministry of Social Justice and Empowerment, Government of India in recognition of research, training and developmental achievements nominated the department for “National Awards for Senior Citizen 2014” under the category of “Best Institution for research in the field of ageing”. The Awards Ceremony held on 1.10.2014, the International Day for Older Persons and Smt. Sumitra Mahajan, Honorable Speaker of Lok Sabha, bestowed the award which included a cash award of Rs. 5,00,000/-, a citation and a plaque. This is the first time that an institution received this national award which started in 2013.

The department organized 17th Asia Pacific Regional Conference of Alzheimer’s Disease International–APRC 2014 between 7th and 9th November 2014 in India Habitat Center, New Delhi. Dr A B Dey, Professor and Head, Department of Geriatric Medicine was the Chairman of the Organizing Committee of this conference.

The department implemented the National Programme for Health Care of the Elderly (NPHCE) during the year as Regional Geriatric Institution providing health care to senior citizens, imparting post-graduate training in Geriatric Medicine as MD (Geriatric Medicine), training nurses of the hospital in old age care and conducting research on issues related to old age health and health care.

EDUCATION

The department became the largest postgraduate department of Geriatric Medicine in India with completion of admission in July session of 2014 with twelve sanctioned and three sponsored seats. The first batch of MD Geriatric Medicine students passed out in December 2014. The Department placed major focus on postgraduate teaching with five sessions of teaching every week comprising of various aspects of postgraduate training.

The department imparted training in old age care to three hundred and three nursing personnel of AIIMS in ten half day programmes during the year under the National Programme for Health Care of the Elderly. Internship training was imparted to thirty students of Post Graduate Diploma in Integrated Geriatric Care (PGDIGC) from National Institute of Social Defense, New Delhi, an autonomous organization under the Ministry of Social Justice and Empowerment, Government of India. The department provided theory and practical teaching to students of Post Graduate Diploma in Health and Social Gerontology, conducted by Institute of Home Economics, Hauz Khas, New Delhi under the University of Delhi.

Lieutenant Colonel Pradeep Behal of Armed Forces Medical Services completed long term training in the Department of Geriatric Medicine on 30 September 2014. On return to his parent organization, he has started Geriatric Services and OPD in Base Hospital, Delhi Cantonment.

CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered

A.B. Dey: 5

Oral papers/posters presented: 15

RESEARCH

Funded projects

Ongoing

1. Impact of age and age related co-morbidities on cancer and cancer care. Dr A B Dey. NPHCE. Three years. 2012-2015. Rs 13,56,820

2. A study of health and well being of the oldest old. Dr A B Dey. NPHCE. Three years. 2012-2015. Rs. 28,24,074
3. Impact of nutritional supplementation and rehabilitation in pre-frail older subjects. Dr A B Dey. NPHCE. Three years. 2012-2015. Rs 14,44,106
4. Dementia care: Utility and implementation of novel non-pharmacological intervention. Dr A B Dey. NPHCE. Two years. 2014-2016. Rs 6,50,000
5. www.oldagesolutions.org- a web based portal for welfare of older people. Dr A B Dey. DST. Three years. 2014-2017. Rs 33,66,186
6. Collaborative multi-centric clinical trial to study the effect of AYUSH Rasayana (A and B) on ageing in apparently healthy elderly subjects. Dr A B Dey. CCRAS. Three years. 2014-2017. Rs 39,85,800

Departmental projects

Ongoing

1. Clinical profile of older patients with heart failure
2. Clinical and biochemical profile of mild cognitive impairment (MCI) among older Indians
3. Cardiovascular complications in COPD in elderly patients
4. Assessment of Palliative care needs among older patients with cancer
5. Validation of a new clinical protocol and biochemical tool for detection of frailty among older Indians
6. Study of orthostatic hypotension among older Indians
7. Impact of diabetes and its complications on mental health and quality of life in older people in India
8. Study of TSPO enhanced Pet Scan in evaluation of cognitive impairment in older adults
9. Cancer in older Indians - Development of an instrument for comprehensive functional assessment and a novel protein marker
10. Evaluation of novel intracellular proteins in serum as marker of aging
11. Study of skeletal muscle regeneration in old age
12. Evaluation of syncope for cardiovascular causes and its impact on cognitive status
13. Study of rheumatoid arthritis in older patients
14. Application of easy-care instruments in detection of geriatric syndromes in older people
15. Assessment of cardiac status in the very old population
16. Assessment of gait and balance in the very old population

Completed

1. A study of health and functionality in oldest old in a tertiary health care setting
2. Assessment of biomarker of frailty in ageing population
3. Early detection of cognitive impairment in old age
4. Functional status and co-morbidities of elderly cancer patients

PUBLICATIONS

Journals: 10

Abstracts: 6

Chapters in Books: 5

PATIENT CARE

The Department provided daily OPD service and once a week afternoon Memory Clinic. During the year 27,608 were seen in the OPD and 184 were treated in the Memory Clinic. Rehabilitation services from the Day Care service of the department was provided to 4759 patients. In the Geriatric Medicine Ward 874 were admitted during the year.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor A.B. Dey was elected as the Chairman of Fragility Fracture Network India in March 2015. He participated as a member of the 11th PA & MC meeting of the TIDE programme of Department of Science and Technology, Government of India at Bengaluru on 26th and 27th November 2014. Dr A B Dey participated in UNESCAP Regional Expert Consultation on Long-term Care of Older Persons, Bangkok, 9-10 December 2014 and prepared a position paper on Long Term Care in India. He attended meeting of the Advisory Committee of UNFPA on Population Ageing on 28 October, 2014 in New Delhi.

Dr Ramesh Kandel, Junior Resident attended 10th International Conference of European Union Geriatric Medicine Society held in Rotterdam, Netherlands with travel grant and registration waiver from the European Union Geriatric Medicine Society between 16th and 19th September 2014. He also got the first prize for best poster and first prize in quiz contest in 12th Annual Conference of the Indian Academy of Geriatric GERICON 2014 at Bengaluru in October 2014.

VISITING SCIENTIST

1. Mr Oliver J. Kim, Deputy Director, United States Senate Special Committee on Aging, Washington DC visited the department on 18.6.2014 to exchange views on development of long term care for older persons in India and United States.
2. Professor Jinkook Lee, USC Davis School of Gerontology, Senior Economist & Director, Center for Global Aging Research, University of Southern California.
3. Professor Mathew Varghese, Head, Department of Psychiatry, National Institute of Mental Health & Neuro Sciences (NIMHANS), Bangalore
4. Professor P. Arokiasamy, Head, Department of Development Studies, International Institute for Population Sciences (IIPS), Mumbai
5. Professor IS Gambhir, Department of Medicine, Institute of Medical Sciences, Banaras Hindu University, Varanasi visited the department on 16 and 17 October 2014 for participating in a protocol development workshop for detection of dementia in community.

9.16 Haematology

Professor and Head

R. Saxena

Professors

H.P. Pati

M. Mahapatra

S. Tyagi

Additional Professors

Tulika Seth Pravas Mishra

Scientist II

S. Sazawal

HIGHLIGHTS

The department was involved in utilizing cutting edge technology like real time PCR/PCR/ flowcytometry for the diagnosis and management of hematological disorders. It also was involved in routine diagnosis and management of patients with hematological disorders. Till date the department has completed 150 allogenic blood and marrow transplants for aplastic anemia, thalassemia, leukemias and myelodysplastic syndrome patients.

Organisation of meetings:

1. 7th National Thalassemia Conference (along with the National Thalassemia Welfare Society): at Jawahar Auditorium, AIIMS in April 2014.
2. Rashtriya Bal Swasthya Karyakram (consultative meeting of technical resource Group for lab services under DEICs: at department of Hematology, AIIMS, New Delhi on 28th November, 2014.
3. CME in Hemophilia: 22-23 November 2014; New Delhi
4. Meeting with International faculty **Dr Devendra Hiwase** from Australia: at department of Hematology, AIIMS, New Delhi on 24th February 2015.
5. Meeting with International faculty **Dr Rajat Kumar** from **Winnipeg, Canada**: at department of Hematology, AIIMS, New Delhi on 6th February 2015.
6. Meeting with International faculty **Dr. Michele Baccarani** from **Italy**: at department of Hematology, AIIMS, New Delhi on 5th February 2015.

EDUCATION

The department continued to conduct DM Clinical Hematology and DM Hemato-pathology courses along with Ph.D programme. The faculty continues to take undergraduate classes for Hematology and Medicine, and Clinical case studies for Dept of Pediatrics 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 04 doctors from other institutions for periods varying from 1 to 6 months. 17 M.Sc. students also undertook short-term training in molecular hematology for periods varying from 1 to 6 months during this year.

Lectures delivered

Renu Saxena: 13

H.P. Pati: 3

M. Mahapatra: 9

Seema Tyagi: 1

Tulika Seth: 22

Pravas Mishra: 5

Papers presented in conferences: 14

RESEARCH

Funded projects

Ongoing

1. Molecular profiling of Acute Myeloid Leukemia. R Saxena. DBT. 4 years. 2013-2016. Rs 8,00,000
2. Role of modulating factors on phenotype of sickle cell disease. R Saxena. DST. 3 years. 2013-2016. Rs 24,32,400
3. A Comparison of the Clinical and Molecule Features of Chronic Lymphocytic Leukaemia (CLL) in Indian and Canadian Populations". R Saxena. Indo Shastri grant. 2 years. 2013-15. Rs. 6,00,000
4. Diagnostic accuracy of Haemoglobin colour strip (HCS), a digital hemoglobinometer (TrueHb) and a Non Invasive device (TouchHb) for screening patients with anaemia. R Saxena. MOHFW. 9 months. 2014-15. Rs 22,44,513
5. A study of the genetic profile of chronic immune thrombocytopenic purpura patients at a North India tertiary care centre. Tulika Seth. CSIR. 3 years. 2013. Rs 3,00,000
6. Aplastic Anemia and Telomerase Complex. Tulika Seth. AIIMS. 2 years. 2013. Rs 5,00,000
7. Pathophysiology of thrombocytopenia in dengue infection. Tulika Seth. DBT (RCB). 2 years . 2014. Rs 3,78,000
8. Incidence of invasive fungal infection in patients undergoing chemotherapy for acute myeloid leukemia – impact of antifungal prophylaxis. A prospective, multicenter, observational study in India..Tulika Seth. MERCK CMC VELLORE. 1 year. 2015. Rs 2,00,000
9. Immune Tolerance Induction, by Factor VIII concentrate containing von Willebrand factor, in severe or moderate haemophilia A patients with inhibitors. (ITI). Tulika Seth. MAX-NEEMAN. 3 years. 2015.
10. Role of tissue factor and tissue factor pathway inhibitor gene polymorphisms in the pathogenesis of DVT in India. Pravas Mishra. AIIMS. 3 years. 2014. Rs 800000
11. Novel Tyrosine kinase inhibitor in Chronic Myeloid Leukemia. Pravas Mishra. NATCO. 3 years. 2014-2016. Rs 6,00,000

Completed

1. Molecular characterization of factor V in Indian patients with activated protein C resistance and FV deficiency". R Saxena. ICMR. 4 years. 2011-2014. Rs 10,00,000 approx.

Departmental projects

Ongoing

1. To study the prognostic significance of CD34⁺CD38^{low/-} CD123⁺ leukemic blasts in acute leukemia by seeing the response to the standard induction chemotherapy.
2. Evaluation of the role of fibrin monomer in the diagnosis of disseminated intravascular coagulation

Completed

1. Evaluation of modified thromboelastography assay for the screening of von willebrand disease
2. To study the prognostic significance of CD34 – 1 – CD38^{Low/-}/CD123^{-/-} leukemic stem cells in acute leukemia by seeing the response to the standard induction chemotherapy
3. To study the causes of secondary immune thrombocytopenia and effect of treatment in these patients
4. To study the acute cardiac toxicity of anthracyclin infusion in acute leukemia patients by serial echo cardiographic parameters. A prospective observational study
5. Diagnostic utility of myeloid nuclear differentiation antigen expression in myelo-dysplastic syndrome
6. Evaluation of bone marrow micro vessel density in patients with aplastic anemia

Collaborative projects

Ongoing

1. Deep Venous Thrombosis and Role of Delteparin as prophylaxis in surgeries for pelvic malignancies. Surgical Oncology.

2. Haematological and coagulation abnormalities in severe Malaria –A prospective observational study. Medicine
3. Evaluation of inflammatory predictors of severity in DHF: A prospective case – control study. Medicine
4. Effect of iron and folic acid tablet versus capsule formulation on treatment adherence and iron status among pregnant women: a randomized control trial. Center for Community Medicine
5. To evaluate the pancreatic tissue perfusion and vascular changes and their inflammatory mediators in the pathogenesis of acute necrotizing pancreatitis in humans. Gastroenterology and Human Nutrition
6. Incidence of deep vein thrombosis (DVT) in major gastrointestinal surgery: A prospective observational study. GI Surgery
7. Hypersplenism in patients with extrahepatic portal venous obstruction – its correlation with splenomegaly and severity of portal hypertension and course following surgery. GI Surgery
8. To test whether hypercoagulable state of blood is a risk factor for post – traumatic temporo mandibular joint ankylosis and in vitro effects of hypoxia and activated protein C on Mesenchymal stem cells. CDER
9. Role of HLA G in allogeneic BMT. Transplant immunology and immunogenetics
10. Role of autologous stem cell infusion in macular degeneration. Ophthalmology

Completed

1. Effect of iron and folic acid tablet versus capsule formulation on treatment adherence and iron status among pregnant women: a randomized control trial. Center for Community medicine.
2. To compare the efficacy of intravenous ferric carboxymaltose versus iron sucrose in the management of anaemia of abnormal uterine bleeding. Obstetrics and Gynaecology
3. Effect of rate control on systemic coagulation status in patients of mitral stenosis with atrial fibrillation. Cardiology, MAMC

PUBLICATIONS

Journals: 42

Chapters in Books: 6

Books: 1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor R. Saxena was Member of Programme Advisory Committee for health Sciences DST, Project Review Committee- ICMR, Taskforce on Human Genetics and Genome Analysis- DBT. New Drug Advisory Committee for Hematology and Oncology, DCGI, Medical Device Advisory Committee, DCG. Expert member, NABL (DST) Accreditation Committee for PT provider. She is a Medical advisor Haemophilic Federation of India. Continued to be Chairman-Ethics committee, ICMR and Member Ethics committee, IIT Delhi; Continued to be Coordinator Indian Society of Hematology and Transfusion Medicine – AIIMS EQAP program.

Professor H.P. Pati was Conferred with Fellow of Indian College of Pathologists, at Annual Conf APCON Dec 2014, Pune. Continuing as Editor-IN-CHIEF, Indian Journal of Hematology & Blood Transfusion since November 2013. Continuing as Expert Member, Research Advisory Committee of National Institute of Immuno-hematology (NIH) since Nov 2013. Continuing as Expert member, NABL (DST) Accreditation Committee. Member, Hematology & Hemato-Oncology Expert Group, Drug Controller General (India), N Delhi. Member, Hematology & Hemato-Oncology Expert Group, Drug Controller General (India), N Delhi

Professor M. Mahapatra was Honorary Secretary of Indian Society of Hematology and Blood Transfusion (ISHBT). Nominated as an Expert in Aplastic anemia by ISHBT to attend Asian Joint symposium on bone marrow failure at Osaka in October 2014

Dr Tulika Seth was Member Institutional Ethics Committee (IEC) of University of Delhi , South Campus; Member Institute Ethics Committee for Post Graduates, AIIMS; Member ethics committee ICPO, New Delhi. Elected as INPOG executive member, this is under the Pediatric Hematology oncology chapter of Indian Academy of Pediatrics.

Dr Pravas Mishra received Harold Gunsen fellowship for paper at 33rd International Congress of the ISBT, Seoul, South Korea

9.17 Hospital Administration

Professor and Head

Sidhartha Satpathy

Medical Superintendent, Dr. R.P. Centre

Shakti Kumar Gupta

Medical Superintendent, Main Hospital

D.K. Sharma

Professors

I.B. Singh

Sanjay Arya

Aarti Vij

Assistant Professor

Nirupam Madaan
Mahesh R

Amit Lathwal

Anoop Daga
Angel Rajan Singh (Contract)

EDUCATION

The Department is running a postgraduate degree programme for medical graduates, viz. MHA (Masters in Hospital Administration) which entered its 47th year after inception. This course was started in February 1966, for the first time in India and has since been recognized as a distinct postgraduate discipline. The Residency Programme in Hospital Administration focuses on 'hands on' training, where Resident Administrators man 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 the doctors working in various organizations including Central, State Governments, various PSUs such as IICM, Ranchi, Power Management Institute, NOIDA, Railway staff College, Vadodra etc.

Short And Long Term Training: 6 (Indian and Foreign national underwent training in this year)

1. One student from Tata Institute of Social Sciences, Mumbai
2. One student from B.P.Koirala Institute of Health Sciences, Dharan, Nepal
3. Four MD (Hospital Administration) students from Sher-I-Kashmir Institute of Medical Sciences, Srinagar

CONTINUING MEDICAL EDUCATION

Conferences, Seminars and Workshops organized by Department

1. Organized 11th Hospital Executive Management Development Program (HxMDP) for senior Hospital Administrators from 7th to 13th September 2014 at Hyderabad.
2. Jointly organized Management Development Programme (MDP) on Best Practices in Hospital Logistics, Inventory and Stores Management held from 21st to 23rd February, 2015 at Army Medical College & Medical Sciences, Base Hospital, Delhi Cantt. in collaboration with Research Foundation of Hospital Health Care and Administration (RFHHA).
3. Organized the Symposium on 'Justice Dispensation system in India': 21st & 22nd January, 2015 at AIIMS, New Delhi in collaboration with Delhi Legal Services Authority(DLSA) for health care providers in hospitals.

Lectures delivered

Sidhartha Satpathy: 12

I.B. Singh: 3

Nirupam Madaan: 8

Mahesh R.: 6

Shakti Kumar Gupta: 6

Sanjay Arya: 7

Amit Lathwal: 6

Angel Rajan Singh: 10

D.K. Sharma: 3

Aarti Vij: 8

Anoop Daga: 7

Oral papers/posters presented: 3

RESEARCH

Departmental projects

Ongoing

1. To Study Communication between Health Care Providers as a tool of patient safety in the Department of GI Surgery, AIIMS
2. A study on risk assessment of workplace violence in AIIMS hospital
3. Study of Investigations and Charges thereof in various labs at AIIMS
4. A study on Professional quality of nurses and burn out in nurses at AIIMS Hospital
5. To Study the factors influencing the patient flow as a cause for overcrowding in New Emergency at AIIMS, New Delhi.
6. Cost analysis of in-patient care of senior citizens at AIIMS Hospital
7. Study of medical equipment procurement practices at AIIMS Hospital, extent of competition in the tenders; and factors which determine participation in bidding process

Completed

1. Study of employees health scheme at AIIMS, compare it with select organized health schemes of employees and prepare a model health scheme
2. A study of patient grievance redressal system at AIIMS
3. Application of operation research techniques in improving patient flow processes at Dr. RP Centre, AIIMS
4. Study the waiting time for elective surgical procedures in select surgical specialties at AIIMS Hospital, analyse the factor leading to wait time and suggest ways to reduce the same.

Collaborative projects

1. Survey of extent of problems of spurious and Not of Standard Quality (NSQ) drugs in the country.. National Biological Institute.
2. Evaluation of stress among MBBS students of a tertiary care teaching institution. Dept of Psychiatry
3. A study to assess the effectiveness of structured training programme on knowledge, attitude and practice regarding infection control measures among non-medical personnel working in selected ICUs at AIIMS, New Delhi. College of Nursing, AIIMS
4. A study to assess the Conflict Management Styles of Nurses at All India Institute of Medical Sciences, New Delhi. College of Nursing, AIIMS
5. Study to assess the knowledge and practice of nurses regarding blood donation, patient safety issues in safe blood transfusion practices. College of Nursing, AIIMS
6. A study to assess the knowledge and attitude of health care professional regarding organ donation who are working in AIIMS, New Delhi. College of Nursing, AIIMS

PUBLICATIONS

Journals: 17

AWARDS, HONOURS AND SIGNIFICANT EVENTS

The Department was responsible for preparing the National Guidelines for engagement of House-keeping services in Government Hospitals through Outsourcing through a collaborative effort, after site visits to other central Govt hospitals, and study of contemporary tenders in operation. It was completed in a time bound manner and submitted to MOFHW for implementation.

Professor Sidhartha Satpathy was Awarded Fellowship of International Medical Sciences Academy (FIMSA); External expert Faculty member for selection of Best Project Hospitals of NTPC for award of Swarna Shakti awards 2014; Subject Expert for speciality of Hospital Administration in various Selection Committees for Faculty of Hospital Administration, Stores Officer, Administrative Officers, Nursing Superintendent etc at various Institutes,

& Medical Colleges; Member of Technical Evaluation Committee of MOHFW for evaluation of DPRs for establishment of new Medical Colleges under centrally sponsored scheme; Member of BIS Sectional Committee on BMW & Infection Control (MHD-21); Member of Nomination Council, Infosys Science Foundation for nomination cycle 2014 for award of Infosys prize; Member, Editorial Review Board on Medical & Health Sciences and International Scientific Committee, WASET; National Medical Journal of India (NMJI), etc; Advisor, Editorial Board of Journal of Academy of Hospital Administration, and International Journal of Research Foundation of Hospital & Health care administration

Dr Shakti Kumar Gupta was Awarded as “Distinguished Jury” on Doctors’ Day, 1st July 2014, by the Indian Medical Association; Awarded the Chief Minister’s Gold Medal for meritorious public service by Hon’ble Governor of Jammu and Kashmir, Shri N. N. Vohra for the year 2014 on 24th July 2014 at the Investiture Ceremony for Awards from 23rd to 24th July 2014; Visited Srinagar as part of the Central Team constituted by Ministry of Health and Family Welfare, Govt of India, for assessment of damage to infrastructure at Tertiary care Medical Institutions in Srinagar affected by floods on 22nd and 23rd September 2014; Visited Srinagar as part of the central team constituted by the PMO and NDMA to assess the requirements on operationalising the tertiary care facilities of the various hospitals in relation to relief and rehabilitation of victims of floods in J&K from 28th to 30th October 2014; Nominated as Honorary Consultant to the Department of Health and Family Welfare, Government of Tripura; Awarded for Outstanding Contribution to the Indian Healthcare Industry by ITP Publishing and Healthcare Radius; Attended the Project Monitoring Committee meeting for Emergency Trauma Centre at Kathmandu, Nepal from November 03 to 005, 2014; Visited Kalyani, West Bengal regarding inspection of two sites for establishing AIIMS from 11th to 13th February, 2015; Visited Vadodara and Rajkot districts regarding inspection of site for establishing AIIMS from 21st to 23rd January 2015; Member of the Advisory Board of “PGDM & PGP Healthcare Management Programs” conducted by Prin. L. N. Welingker Institute of Management Development and Research (WeSchool), Mumbai; Appointed as the co-chairman of the Haemovigilance Advisory Committee (HAC) constituted by the Ministry of Health and Family Welfare, Govt of India to increase the reach of Haemovigilance Programme of India; Member of the Expert Advisory Committee for the proposed five programmes – Pharmacovigilance, Hemovigilance, Biovigilance, Materiovigilance and Antimicrobial Resistance to be implemented under the Pharmacovigilance Programme of India (PvPI) during the 12th five year plan (2012 – 2017), DGHS, CDSO, Ministry of Health and Family Welfare, Govt of India.

Dr D.K. Sharma Served as Chairman/ Member of various intra- as well as extra mural policy making & decision making committees of AIIMS as well as other organizations including Ministry of Health & Family Welfare, Central Pollution Control Board, Govt. of NCT of Delhi etc.; Conducted MD (Hospital Administration) Final examination in April, 2014 & supplementary examination in Oct., 2014 at Nizam’s Institute of Medical Sciences, Hyderabad; Attended selection committee meeting as a subject expert for assessment promotion of faculty member under Career Progression Scheme for the post of Professor, Deptt. of Hospital Administration at SGPGIMS, Lucknow; Participated in meeting regarding recruitment rules of non-faculty posts for new AIIMS under PMSSY to be held at AIIMS Rishikesh; Attended standing selection committee as an external expert for the post of Assistant Professor & Medical Supdt. on 28.7.2014 at IGIMS, Patna; Conducted the viva voce & Dissertation examination as an External Examiner for MHA Final Semester Examination at Swami Rama Himalyan University, Doiwala, Dehradun; Conducted examination as an External examiner for Master in Hospital Administration at PGIMER, Chandigarh.

Professor I.B. Singh was External Examiner for final MD (Hospital Administration) examination at Narayana Medical College, Nellore (AP); Internal Examiner for Post Graduate Degree Course (Master in Hospital Administration), AIIMS; Thesis Examiner for Post Graduate Degree Course (M. D. in Hospital Administration) Nizam’s Institute of Medical Sciences, Hyderabad- 500082 (Ref.No AcI /2853/2013-14/BS dated 03-07-2014); Moderated scientific session in the 6th National Methodology Workshop, 21-24 August, 2014 held in Prestige Institute of Management, Gwalior; Member of the Expert Committee for Revision of Formulary (proprietary drugs included in Drug formulary for CGHS and MSO held under the Chairmanship of Spl. DG(CGHS), Ministry of Health and Family Welfare; Member of the Expert Technical Committee, for procurement of medical equipment for setting up of OPD for AIIMS, Raibareli; Expert committee member of Indo-German Working Group on Quality Infra Structure for Cooperation in Standardization, conformity Assessment and Product Safety held on 28th November, 2014, New Delhi; Member of the Expert Committee for drafting and finalizing Clinical Establishment Act- Standard for Hospital(Level 1 and level 2) and participated and contributed in finalizing the draft put up in the technical expert committee meeting held under the chairmanship of Spl. DG(CGHS); Nodal officer to attend the

“workshop to Scale up Provision of Free Medical Care to Economically Weaker Section in Private Hospitals – held on 11-06-2014” organized by the Department of Health and Family Welfare, Government of Delhi.

Professor Aarti Vij Organized Training of Nurses on Cadaver Organ and Tissue Donation Process. 100 nurses from AIIMS & other hospitals were trained; Orientation of 800 nurses on organ and tissue donation in Nurses Induction Training; Integrated Lecture on Management of Coma & Brain Death & Organ Donation to MBBS Students, AIIMS; Contributed in framing guidelines on whole body donation and organ retrieval in MLCs along with Department of Health & Family Welfare, Govt. of NCT of Delhi; Coordinated in Registration of Heart Valve Bank; Coordinated in Linkage of AIIMS with NOTTO for the purpose of networking for organ sharing; Compiled data of Nodal Officers of AIIMS of organ and tissue transplant on the e-portal of Delhi Govt; 213 organs and tissues were procured for transplantation; Donor Registry: 3033 persons pledged for organ donation on motivation of ORBO. Total number of Registry till dated is about 25000; Collaboration with various organization to promote the noble cause of organ & tissue donation; Prepared guidelines regarding ICU Teams for Deceased Organ Donation at AIIMS and JPN Apex Trauma Centre; Total No. of Community Services/Camps: 78; Organized IEC activity on organ donation in the 78 conferences/workshops conducted by the institute; Independent (Non-Official Part Time) Director on the Board of HLL Lifecare Ltd., Govt. of India Enterprise; Member Advisory Group in National Organ Transplant Programme under the Directorate General of Health Services, Ministry of Health & Family Welfare, Govt. of India; Letter of appreciation from Sh. Arun Jaitley, Hon’ble Minister of Finance, Corporate Affairs and Defence for excellent care and professionalism in patient care; Letter of appreciation from Sh. G.E. Vahanvati, Attorney General of India for exceptional care and supervision of treatment; Certificate of Appreciation for outstanding contribution to National Eye Bank

Dr Nirupam Madaan was Member of the editorial board of the Journal of Research Foundation For Hospitals and Healthcare Administration. ISSN 2347-4254; e-ISSN 2347-4602; Visiting faculty At IICM, Ranchi, for the following programs: In-service training program on Hospital Administration, Program on Disaster Management in mines for Engineers, Program on Contract Management for Senior Executives; Resource faculty for Induction training of Sisters Grade II & PG students at AIIMS.

Dr Mahesh R. was Principal Member of Medical Equipment & Hospital Planning Division Council (MHDC), Bureau of Indian Standards; Expert in the committee for development of Pack Warnings, MoHFW, GOI (Tobacco Control Division); Member Sub-Committee for “Development of Minimum Standards for Clinical Establishments, GOI, DGHS.

VISITING SCIENTISTS/DELEGATIONS

1. Students from Health Sector Management Program at Boston University, USA along with Prof Ned Rimer, Faculty Director visited the Department on 6th January during their India Field Seminar 2015.
2. Delegates (6) from NHS Leadership Academy, United Kingdom visited the department on 20 November 2014 during their tour of India to get a first-hand knowledge of AIIMS.
3. Delegation of 27 Medical Superintendents from French National Health Service visited on 19 January 2015 for a site visit and interactive session as a part of their international exposure program.

9.18 Laboratory Medicine

Professor and Head

A.K. Mukhopadhyay

Professors

M. Irshad Sarman Singh

Additional Professors

Subhadra Sharma

Purva Mathur
(JPNATC)

S. Arulsevi
(JPNATC)

Assistant Professor

Sudip Kumar Datta
(from 5 June 2014)

Shyam Prakash
(from 28 June 2014)

Gaurav Chhabra (Contract)
(from 4 August 2014)

Scientist

Vandita Vasudev

HIGHLIGHTS

Medical Council of India (MCI) took cognizance of the discipline of Laboratory Medicine and desired to establish similar model of central lab, Dept. of Laboratory Medicine and postgraduate course in Laboratory Medicine throughout the country. Computerized appointment system for patient's sample collection is completed. The patients get appointment for phlebotomy on the very next day. The reports after investigation are also sent through computerization to the different wards and OPDs. The patients can access their report through AIIMS website. The Department organized a talk and Interactive session with Dr. Deepak Chopra at AIIMS on 29th September, 2014. The Departmental faculty continue to attract funds from National and International funding agencies and brought accolade and Honors to the Department. The individual achievement can be observed in the respective section of publication, award and honours.

EDUCATION

Long-term: The department runs comprehensive postgraduate and Ph D training program.

Short-term: Three students received short-term training and 1 PhD student from PGIMER, Chandigarh was also trained in cloning and other molecular technologies. Six MD students from the Department of Pathology were also trained in the department.

CMEs/Workshops/Symposia/National and International Conferences (Organized by the department)

1. Diagnosis of Intestinal Parasitic Infections, 6th Annual Conference of IAMM-Delhi Chapter (Dr Sarman Singh) 26th November 2014, New Delhi.
2. AIIMS-DBT Brain Storming Symposium on Challenges in Tuberculosis Diagnosis and Management (Dr Sarman Singh), March 24, 2015 AIIMS, New Delhi.

Lectures delivered

A.K. Mukhopadhyay: 4 Sarman Singh: 23 Shyam Prakash: 2

Oral papers/posters presented: 1

RESEARCH

Funded projects

Ongoing

1. The study of mitochondrial mutations, mitochondrial function and oxidative stress in Parkinson's Disease. AK Mukhopadhyay, DBT, 2011-2014, Rs 37 lakhs.

2. Cloning and expression of N-22 region of Torque Teno Virus (TTV) and develop EIA system for anti-TTV antibodies. M. Irshad, CSIR, 2011-14, Rs 19.92 lakhs.
3. Medicinal orchids of Arunachal Pradesh: Micro Propagation: Phytochemical characterization and biological activity evaluation. Sarman Singh, DBT, 2013-16, Rs. 86 lakhs.
4. Kinetoplastid Drug Development: Strengthening the preclinical pipeline KINDReD. Sarman Singh, European Commission, 2013-16, Rs. 2.00 Crores.
5. Leishmania kinesin Motor Domain with BCG as a vaccine formulation against experimental visceral Leishmaniasis. Sarman Singh, ICMR, 2013-16, SRS Ship.
6. Batch Efficacy Testing for Infectious Diseases Markers on Advia Centaur System. Sarman Singh, Siemens Ltd., 2015-17, Rs. 9.34 lakhs.
7. Molecular epidemiology and drug resistance pattern of Mycobacterium tuberculosis from North-East regions of India. Sarman Singh, DBT, 2014-17, Rs. 74.23 lakhs.
8. Short term training on recent techniques in infectious disease diagnosis for mid-career scientist of NER. Sarman Singh, DBT, 2012-15, Rs. 34.44 lakhs.
9. Molecular epidemiology and genetic characterization of M. tuberculosis in HIV seropositive patients. Sarman Singh, ICMR, 2012-15, Rs. Rs 19 lakhs.
10. An inexpensive and rapid diagnostic method for detection of hepatitis C viral RNA (HCV RNA) by loop mediated isothermal amplification (LAMP). Shyam Prakash, DBT, 2013-2016, Rs 24.7 lakhs.
11. Rapid diagnostic evaluation of micro PCR for Hepatitis B/C (HBV DNA/ HCV RNA) Quantitation. Shyam Prakash, BigTech , 2012-2015, Rs 12.19 lakhs.

Completed

1. The role of neurotrophins, cytokines and genetic polymorphisms in clinical manifestation of depression in adolescents. A.K. Mukhopadhyay, DBT, 2010-2013, Rs. 35.99 lakhs.
2. To develop a single step multiplex real time PCR (RT-PCR) for the detection of A - G hepatitis viral infections in patients' blood. M. Irshad, ICMR, 2012-13, Rs.16.30 lakhs.
3. A novel loop mediated isothermal amplification (LAMP) assay for rapid detection and differentiation of mycobacterium tuberculosis. Sarman Singh , DBT, 2011-14, Rs.63 lakhs.
4. Determinants of HIV-1 male to female sexual transmission effects of herpes viruses on semen mediated HIV-1 transmission to cervico-vaginal tissues Ex-Vivo. Sarman Singh, ICMR, 2011-14, Rs. 47 lakhs.
5. Comparative evaluation of C Reactive Protein and total leucocyte count in patients with infectious and inflammatory disorders. Sarman Singh, HORIBA India (P)Ltd, 2014-15, Rs. 6.55 lakhs.

Departmental projects

Ongoing

1. Study of polymorphism in TNF-alpha (308G/A), IL-1beta (511 C/T), and IL -6 (174G/C) genes in patients of Depression: Their association with clinical severity.
2. Multiplexing assays for hepatitis viruses.
3. Role of TTV in renal failure patients.
4. Epidemiological studies on CRF in Indian communities.
5. Cloning, sequencing and expression of TTV related polypeptides.
6. Genotyping of TTV in Indian population.
7. Real time PCR for sero detection of HCV genotypes.
8. Significance of HCV-genotypes in Cirrhosis / HCC.
9. Cloning Expression and Purification of a highly antigenic recombinant antigen from *Toxoplasma gondii* and its evaluation for the diagnosis of human and animal toxoplasmosis.

10. Raising mono & polyclonal antibodies against novel antigens of *Mycobacterium tuberculosis* and their diagnostic value in clinical samples.
11. Development of new molecular test(s) for rapid diagnosis of India specific Pre- XDR/XDR-TB
12. To see the prevalence of microsporidia in stool samples of HIV sero negative adults, pediatric patient with diarrhoea.
13. Molecular epidemiology of *Mycobacterium tuberculosis* by spoligotyping and 24-Locus mycobacterial interspersed repetitive unit variable number tandem repeat typing from different geographical regions of India.
14. Isolation of Characterization of Leishmania or Leishmania like parasite(s) from seropositive goat.
15. Development of a Loop Mediated Isothermal Amplification (LAMP) Assay for rapid detection of *Mycobacterium tuberculosis* & NTMs from clinical samples.
16. Detection of Mycobacteremia in patients of suspected extra pulmonary tuberculosis cases.
17. Genotyping of *Mycobacterium tuberculosis* using molecular methods – Spoligotyping & IS6110RFLP contact investigations in tuberculosis.
18. Biomarker(s) for assessment of villous abnormalities in patients with celiac disease and other enteropathies.
19. Effect of antioxidant supplementation on pain relief and reduction in number of episodes of acute pancreatitis in patients with idiopathic recurrent acute pancreatitis.

Completed

1. Study of peripheral stress biomarkers (S100B, 8 Isoprostane and 8-hydroxy-2-deoxyguanosine) in major depression: correlation with clinical severity and treatment response.
2. D-Dimer and other coagulation parameters in operable breast cancer with lymph node metastasis.
3. Evaluation of micronutrient deficiency and bone health in morbid obese patients undergoing laparoscopic sleeve gastrectomy.
4. Pathophysiology of paracellular permeability and tight junctions & their regulation in family members of the patients in Celiac disease.

Collaborative projects

Ongoing

1. Correlation between first trimester glucose screening & serum insulin levels with development of gestational diabetes mellitus in pregnancy (Endocrinology & Metabolism).
2. A multicentric study on Chronic Renal Failure (CRF) in Indian population (Nephrology).
3. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis or organ dysfunction and sepsis (Microbiology).
4. Development and validation of rapid and accurate diagnostic test for tuberculosis (Biotechnology).
5. Study of the effect of magnetic field exposure on blood cells and blood flow in humans (Biomedical Engineering).
6. Comparison of effect of single dose of intra articular injections of platelet rich plasma and high molecular weight hyaluronic acid in pain reduction and improving quality of life in patients with osteoarthritis of knee (Physical Medicine & Rehabilitation).

Completed

1. A cross sectional study of tumor markers during normal and high-risk pregnancies (Obs & Gynaecology).
2. Study of diagnostic utility of GeneXpert in diagnosis of pleural and lymph node tuberculosis (Medicine).
3. Nutritional status in third trimester pregnant females and its effect on oxidative stress measures in serum of females residing in rural community of Ballabgarh: A community based study (Community Medicine).

PUBLICATIONS

Journals: 34

Abstracts: 3

Chapters in Books: 2

PATIENT CARE

Centralised Blood Collection Facility

- I. Phlebotomy
- II. Investigations performed
- II. Distribution of Blood Samples

I. Phlebotomy:

Total number of Phlebotomy & Sample (Primary & Post Prandials) : 99,935

II. Investigations Performed

A) Bleeding Time, Clotting Time : 4175
Prothrombin Time : 2134
APTT : 409

III. Distribution of Blood Samples

A) To Dept of Lab Medicine

i) Cl. Chemistry Section : 98,266
ii) Cl. Heamatology Section : 57,362
iii) Cl. Microbiology Section : 3123

B) To Laboratories Outside of Dept of Lab Medicine

i) CNC : 14650
ii) Dept of Microbiology : 7201
iii) Dept. of Transfusion Medicine : 2015

* (Because of computerization, the data shown is summation of computerization as well as manual records)

EMERGENCY LABORATORY SERVICE (Round the clock)

Hematology Section

S.No	Test	Total
1.	Hb	99440
2.	TLC	99440
3.	PLT	99440
4.	PT	22026
5.	TT	756
6.	APTT	2453
7.	D-DIMER	559
8.	MP	4827
9.	CSF Cells	5025
10.	Urine	2000
11.	Blood C/S	8000
12.	CSF C/S	3500
13.	Slide Stain	9125
14.	H.D. Stool	3280

15.	MCV	99440
16.	MCH	99440
17.	MCHC	99440
18.	PCV	99440
19.	RBC	99440
20.	B/C	1825
21.	Others	1000
	Total	8,59,896

CLINICAL BIOCHEMISTRY EMERGENCY SERVICES

Test	Number	Test	Number
Glucose:	34,877	Urea:	1,25,554
Creatinine:	1,25,554		
<i>Electrolytes</i>			
Sodium:	1,27,349	Potassium:	1,27,349
Ionized Calcium:	1,27,349	Chloride:	1,27,349
<i>Bilirubin</i>			
Total:	93,345	Conjugated:	145
SGOT:	523	SGPT:	523
ALP:	523	T.Protein:	523
Albumin:	523	Amylase:	13,459
CSF Protein:	6,127	CSF Glucose:	6,127
ABG with electrolytes:	20,654		
TOTAL	9,37,853		

SERVICE FROM ROOM NO. 18

Adenosine deaminase assay (ADA)	: 1699
Neurocysticercosis (NCC) serum IgG antibodies	: 121
TOTAL	: 1820

Nutritional Markers, Tumor Markers, Hormones and Others

S.No	Test	Total
1	Serum Vit. B-12	1928
2	Serum Folic Acid	1797
3	Serum Ferritin	857
4	CEA	157
5	CA – 15.3	95
6	CA – 19.9	131
7	Serum PTH	35
8	Others*	650
	Total	5650

Other *: Repeat samples, Quality Controls and Calibrations.

HEMATOLOGY SECTION

S.No	Test	OPD	Ward
1	Hb	109151	89283
2	TLC	109151	89283
3	PCV	109151	89283
4	DLC	109151	89283
5	ESR	70201	48429
6	P/s Morphology	109151	89283
7	PLT	109151	89283
8	Retic Count	3602	506
9	Abs Eos. Count	109151	89283
10	ANC	109151	89283
11	MP	23050	480
12	Thick Smear	2531	—
13	MCV	109151	89283
14	MCH	109151	89283
15	MCHC	109151	89283
16	RBC	109151	89283
17	RDW	109151	89283
18	MPV	109151	89283
19	PT	—	20682
20	APTT	—	6725
21	TT	—	2804
22	D-DIMER	—	4464
23	Others	18250	8500
	Total	1645748	1342552

Grand Total = 29,88,300

* Repeat test, trial test, Quality Control Sample, Internal Q.C. etc.

Note: Hb, TLC, PCV, DLC, Platelet, MCV, MCHC, RBC are measured by single reagent, within the same time frame

CLINICAL BIOCHEMISTRY ROUTINE SERVICES

Test	Blood	Urine	Fluid
Sugar:	1,53,887	—	3,441
Urea:	3,29,218	205	—
Creatinine:	3,29,217	21,980	—
Calcium:	3,02,230	12,380	—
Phosphate:	2,93,470	12,344	—
Uric Acid:	3,00,730	12,356	—
Na:	3,25,798	22,060	—

K:	3,25,798	22,060	—
SGOT:	3,24,358	—	—
SGPT:	3,24,358	—	—
Alk. Phosphatase:	3,21,718	—	—
Bilirubin			
i) Total:	3,28,798	—	—
ii) Conj.:	2,37,838	—	—
T. Protein:	3,22,737	—	3,441
Albumin:	3,22,737	—	3,441
Cholesterol:	1,26,850	—	—
Amylase:	17,344	—	379
ACP:	2,000	—	—
24h Albumin:	—	21,980	—
Total:	46,89,086	1,25,365	10,702
Grand Total:	48,25,153		

CLINICAL BIOCHEMISTRY RARE INVESTIGATIONS

Test	Number		
HBsAg:	300	IgM anti HBc:	200
HBeAg:	300	Anti HCV:	600
IgM Anti HEV:	100	IgM Anti HDV:	100
IgM Anti HAV:	100	HCV- RNA:	600
TTV-DNA:	1200	CK:	100
LDH:	100	TG:	100
LDLc:	300	HDLc:	300
TOTAL:	4,400		
Grand Total:	48,29,553		

MICROBIOLOGY SECTION

A. Routine Investigations

Patient care:

1. Urine

Name of the Tests	O.P.D	WARD	TOTAL
Medical board	1393	—	1393
Routine	34713	32506	67219
Microscopic	34713	32506	67219
pH	34713	32506	67219
Specific gravity	34713	32506	67219
Acetone	34713	32506	67219
Bile pigment/salt	34713	32506	67219
Urobilinogen	34713	32506	67219

Blood	34713	32506	67219
Bence Jones Protein	1265	464	1729
Chyluria	139	157	296
Porphobilinogen	84	84	168
Myoglobinuria	15	43	58
Urine Cultures	15741	-	15741
Strain identifications tests	15025	-	15025
Antibiotic Sensitivity	2895	-	2895
Subtotal	314261	260796	575057

2. Stool Investigations

Wet mount saline	9149	2655	11,804
Wet Iodine stain	9149	2655	11,804
Occult blood in stool	2538	1152	3,690
Fat globules	206	129	335
Special stains for stool Z-N stain, Modified Z-N stain, Trichrome and chromotope	1062	790	1852
Subtotal	22,104	7381	29,485

3. Semen analysis

Routine	3815	-	3815
No. of Reactions	3815	-	3815
Motility	3815	-	3815
Count	2543	-	2543
Fructose	1460	-	1460
Morphology	2543	-	2543
Subtotal	17,991		17,991

4. Sputum Analysis

Total Number of samples received	3339	1425	4764
ZN staining (Microscopy)	6678	2850	9528
MTB Culture	250	30	280
Sub total	6928	2880	9,808

B. Specialized Investigations

Immuno-Serological & Molecular Diagnosis Tests

5. TORCH

NAME OF THE TEST* (these tests remained suspended for most of the year)	TOTAL
Toxoplasma gondii IgG	245
Toxoplasma gondii IgM	290
Rubella IgG	385
Rubella IgM	430
Cytomegalo virus IgG	1875
Cytomegalo virus IgM	1896
Herpes Simplex virus IgG	224
Herpes Simplex virus 2 IgG	224
Herpes Simplex virus (1+2) IgM	224
Toxoplasma gondii IgG avidity	05
Rubella IgG avidity	48
Cytomegalo virus IgG avidity	30
Parvo virus B19 IgG	96
Parvo virus B19 IgM	96
Sub Total	6068

6. Viral Marker & HIV

Anti HAV IgM	867
HBsAg	16201
Anti HBcIgM	120
HBeAg	760
Anti HBe	60
Anti HBs	1320
Anti HCV antibody	14747
HEV IgM	192
HIV (1+2) ELISA	14595
HIV Spot Test	50
HBsAg (spot	200
Subtotal	49112

7. Others

Measeles IgG	56
Measles IgM	24
Mumps IgG	56
Varicella IgG	384
Varicella IgM	384
EBV IgG	32
EBV IgM	32
Subtotal	968

8. Molecular Tests

Leishmania PCR	16
TB PCR	12214
CMV (RT PCR)	123
HIV Viral Load (NASBA)	200

9. Leishmania Serology

Serology	105
Microscopy for L.D	09
Leishmania Culture from patient sample	18
Leishmania Strain maintenance (In vitro)	1440
Lab Strain Maintenance in Hamster	24
Subtotal	1596

10. BD Influx Cell Sorter (Flow Cytometer)

Flow Cytometer Assays	235
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11. TB Laboratory

Total Number of samples received	4556
ZN staining:	8067
LJ medium inoculated	7765
BACTEC MGIT 960 inoculated	11765
BACTEC MGIT 960:	530
Colorimetric Redox Indicator assay (CRI)	50
Nitrate Reductase assay (NRA)	200
Biochemical analysis performed:	150
Tuberculin Skin Test Performed (PPD)	150
TB Culture confirmation test performed by strips	250
Line Probe assay (HAIN'S Test)	96
GeneXpert MTB/RIF	610
DNA Sequencing	85
Subtotal	34,274
Grand Total	7,37,147

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor A.K. Mukhopadhyay represented India in an East & West Dialogue at Tucson, Arizona, USA along with Dr. Deepak Chopra at 20th Anniversary of the Conference, "Towards science of Consciousness" on 21st of April, 2014. He was also invited to contribute a chapter in the book, edited by Deepak Chopra, titled *Brain, Mind & Cosmos*. He is honored to be chosen as the member of Nominating Council for 2013 BBVA Foundation Frontiers of Knowledge Awards, Spain. Like previous four years honored to be chosen as the member of Nominating Council for Infosys Science Foundation Award, 2013.

Professor M. Irshad was nominated as the Member of Editorial Board for World Journal of Hepatology (WJH) for 2013-14. He received compliment of Editor-in-Chief of World Journal of Gastroenterology on our article *Hepatitis C Virus (HCV): A Review of Immunological Aspects* published in International Reviews of Immunology as: “Congratulations on the publication of your highly cited original article in the field of Hepatitis C virus review, which has been cited more than 35 times and is in the world’s top one percent of papers”. He was nominated for “Indira Gandhi Shiromani Award” by India International Friendship Society (IIFS).

Professor Sarman Singh received 3 prestigious awards, the BMJ Excellence Award for Innovative Research; the Chkitsa Ratan Award of Delhi Medical Association and the Med-Achiever Award of Indian Medical Association. Delivered lectures at NIH, Washington DC (USA); University of Kansas, Kansas (USA); University of Porto, (Portugal); and Isfahan, (Iran). He is currently Chairman of the Award committee for best Hindi book writing on medical sciences, Indian Council of Medical Research and Member of Task Force on Tuberculosis, Department of Biotechnology, Government of India; Task Force of DBT for Scheduled Castes, Scheduled Tribes Population and Rural Development, Government of India; Global Technical Committee of International Organization for Standardization (ISO), Geneva; Bureau of Indian Standards (BIS), New Delhi; CPCSEA (Ministry of Environment, Government of India) nominee for Institutional Animal Ethics Committees (IAEC) of Defense Institute of Physiology and Allied Sciences (DIPAS); Institute of Genomics and Integrative Biology (IGIB); Defense Institute of Physiology and Allied (DIPAS); University of Delhi; Member, Condemnation Board of Indian Council of Medical Research, New Delhi; Technical Evaluation Committee of Establishment of Model Rural Health Research Units (MRHRU) in the Sates; Equipment purchase committee of Indian Council of Medical Research, New Delhi; Core Committee Member of the Assessment Board for Promotion of ICMR Scientists under the Flexible Complementing Scheme for Scientists B to Scientist G; Post-Doctoral Fellowship Award committee of Indian Council of Medical Research; Expert committee of ICMR for reemployment of retired ICMR scientists. He continues to be on the editorial and review boards of following journal “The Open AIDS Journal” Bentham Publications, USA; “Journal of Infection in Developing Countries” Italy; “Clinical Medicine: Dermatology”, La-Press, Australia; Lancet, JAMA, Clinical Infectious Diseases, Maternal & Child Health, Clinical and Experimental Immunology, FEMS Immunology, Journal of Medical Virology, Journal of Medical Microbiology, Journal of Infection, AIDS Care & Behaviour, Archives of Medical Research, Infectious Diseases in Clinical Practice, International Journal of Integrative Biology; Journal of Parasitology; Medical Science Monitor; International Journal of Genetics and Molecular Biology; International Journal of Medicine and Medical Sciences; International Journal of Integrative Biology; Expert Reviews in Molecular Medicine; Biomed Central- Infectious Diseases; Tropical Medicine and Health; Evidence Based Complementary and Alternative Medicine; Molecular and Cellular Biochemistry (MCBI); Scandinavian Journal of Clinical & Laboratory Investigation; Tropical Medicine and International Health; PLoS Neglected Tropical Diseases; Annals of Clinical Microbiology and Antimicrobials; International Research Journal of Biotechnology; Current Science; Journal of Parasitic Diseases; Journal of Laboratory Medicine; Neurology India; Journal of Postgraduate Medicine; Indian Journal of Gastroenterology; Indian Journal of Leprosy; Indian Journal of Medical Research; Indian Journal of Experimental Biology; Indian Journal of Paediatrics; Indian Journal of Physiology & Pharmacology; Indian Journal of Medical Microbiology; Indian Journal of Animal Parasitology; Indian Journal of Vector Borne Diseases; Lung India; Tropical Parasitology; World Journal of Hepatology and several others. He is also Abstract Reviewer for the Annual International AIDS conference for the last 7 years consecutively; Editor, Tuberculosis Research and Treatment, Hindawi Publishing Corporation, USA; and Editor-in-Chief, Journal of Laboratory Physicians, New Delhi.

Dr Sudip Kumar Datta is nominated member Institutional Ethical Committee for Research on human samples at IMS Engineering College, Ghaziabad, UP.

VISITING SCIENTIST

Dr Deepak Chopra, MD, 1964 batch AIIMSONIAN who has been leading in USA and all over the world a vision change program towards holistic health on the basis of Upanishadic wisdom visited the Dept. and delivered a talk amongst distinguished faculty members of AIIMS followed by interactive session in Ramalingaswami Board Room on 29 September 2014.

9.19 Medicine

Professor and Head

S.K. Sharma

Professors

Rita Sood
Ashutosh Biswas

Naveet Wig
Uma Kumar

Additional Professors

Sanjeev Sinha

Naval K. Vikram

Assistant Professors

Manish Soneja
Kuldeep Kumar
Ranveer Jadon (Contract)

Piyush Ranjan
Neeraj Nischal (Contract)
Prayas Sethi (Contract)

Anup Singh
Pankaj Jorwal (Contract)
Arvind Kumar (Contract)

HIGHLIGHTS

The Department of Medicine has been the soul of the services provided by the institution. Besides the routine services it has a strong presence in the field of Infectious Diseases, Chest medicine, Metabolic Syndrome, Hypertension, Sleep Disorders including Obstructive Sleep Apnea, Narcolepsy, Insomnias, Parasomnias and Rheumatology. The Department also has a long-term interest in all aspects of Critical Care Medicine which includes application of NAVA for weaning. The department has started doing Endo-bronchial Ultrasonography (EBUS) and is striving to provide training to its residents. The Department has published first Indian Sleep Disorder guidelines named 'Indian Initiative on Obstructive Sleep Apnea (INOSA) Guidelines (2014, First ed.)', which aims at accreditation of Sleep Labs, rational prescription of positive airway pressure (PAP) therapy and re-imburement of PAP equipments across India. This is a multispecialty consensus document and will provide a direction to the Ministry of Health & Family Welfare, Govt. of India (MoH& FW, GoI) on the said subject.

The Department has been given the status of Centre of Excellence (COE) for Extra-pulmonary-TB (EPTB) by the MoH&FW, GoI. The Department has been enthused with the task of formulating National Guidelines for the management of EPTB by MoH& FW, GoI. The Department has also been designated as WHO-Collaborating Centre (WHO-CC) for Research and Training in Tuberculosis. This Centre will provide modular training in EPTB, opportunities for research collaborations and will offer expert advice for national and international requests.

The Department is providing impetus to Tribal Health and is acting as a partner in providing health care services and doing research in the ICMR Field Station at Lahaul & Spiti (Himachal Pradesh).

EDUCATION

The Department runs a comprehensive undergraduate and postgraduate teaching programme which includes integrated lectures, seminars, journal club and bedside clinical case discussions. The department also has a well established Ph D program. Sixteen students from various countries including USA, UK, Kenya and United Arab Emirates received short-term training in the department this year.

CMEs/Workshops/Symposia/National and International Conferences

1. Symposium on "Artificial Intelligence and its scope in Medical Science" at AIIMS, New Delhi on August 23rd-24th, 2014.
2. CME on "Vector Borne Diseases" at AIIMS, New Delhi on October 18th, 2014.
3. "Patient Awareness Programme on Arthritis"-28th October 2014 at AIIMS, New Delhi.
4. Workshop on 'Teaching in a Clinical Environment' for AIIMS faculty on October 29th, 2014 at AIIMS, New Delhi.

5. Special Clinical Grand Round at AIIMS, New Delhi on “Ebola: Diagnosis and Management” on November 11th, 2014.
6. Expert Group Meeting for “Extra Pulmonary TB Guidelines” on November 27th , 2014 at AIIMS, New Delhi.
7. Symposium on “Current Challenges in HIV/AIDS Care” on December 1st, 2014 at AIIMS, New Delhi.
8. 2nd Expert Group Meeting for “Extra Pulmonary TB Guidelines” on January 24th , 2015 at AIIMS, New Delhi.
9. “Rheumatology Update 2015” under aegis of Delhi Rheumatology Association on 15th Feb 2015 at AIIMS, New Delhi.
10. Update Meeting for “Extra Pulmonary TB Guidelines” on March 16-20, 2015 at AIIMS, New Delhi.
11. Symposium on “HIV & Cancer” on March 25, 2015 at AIIMS, New Delhi.
12. Workshops for AIIMS Faculty in “Basic course in Medical & Health Profession Education” from 25th to 27th March 2015 at AIIMS New Delhi.

Lectures delivered

S.K. Sharma: 12

Rita Sood: 16

Ashutosh Biswas: 9

Uma Kumar: 11

Sanjeev Sinha: 4

Naval K Vikram: 1

Manish Soneja: 2

Piyush Ranjan: 3

Kuldeep Kumar: 9

Oral papers/posters presented: 2

RESEARCH

Funded projects

Ongoing

1. A prospective double-blind, randomized controlled trial (RCT) to determine the effect of Vitamin D supplementation on the development of active tuberculosis and pneumonia in HIV-infected individuals. S K Sharma, Indian Council of Medical Research (ICMR), 2013-2016, Rs. 22.46 lakhs.
2. Impact of a package of intensive smoking-cessation intervention versus recommended, basic smoking-cessation advice on outcomes in smear-positive patients with pulmonary tuberculosis; a randomized controlled trial. S K Sharma, Indian Council of Medical Research (ICMR), 2013-2016, Rs. 24 lakhs.
3. Urinary proteome analysis in patients with obstructive sleep apnea , S K Sharma, Department of Biotechnology, (DBT), 2013-2016, Rs. 47 lakhs.
4. Evaluation of inflammatory predictors of severity in DHF : A prospective observational case - control study. Ashutosh Biswas, ICMR, 3year, 2013-2015, Rs. 44.63 lakhs.
5. Role of biomarkers in severe dengue fever. Ashutosh Biswas, AIIMS, 2 years, 2013-2014, Rs. 4.82 lakhs.
6. Nonalcoholic fatty liver disease: Associations with bone mineral density, vitamin D and adipokines. Naval K Vikram, Department of Biotechnology, 2013-2016, Rs 9 lakhs.
7. Biomarkers predicting severity and outcome in malaria. Manish Soneja, Intramural, 2012-2014, Rs 5 lakhs.
8. Effect of electromagnetic radiations due to mobile phone use on sleep and neurocognitive functions: A molecular approach. Manish Soneja, Department of Science & Technology, 2015-2018, Rs 64.96 lakhs.
9. Biomarkers assessing the activity of interstitial lung disease in systemic sclerosis. Piyush Ranjan, Intramural, 2012-14, Rs 5 lakhs.
10. Once daily dose of Nevirapine (400 mg) versus twice daily dose (200 mg) of Nevirapine -based highly active antiretroviral therapy regimens in antiretroviral-naive patients with HIV and Tuberculosis infection in India. Sanjeev Sinha, NACO, 2012-2015, Rs 48.5 lakhs.
11. Asha improving health and nutrition of Indian women with AIDS and their children. Sanjeev Sinha, NIH, USA, 2013, Rs 3.64 crores.
12. Studies on molecular approaches to tuberculosis: determination of the prevalence of MDR and XDR strains and drug susceptibility testing, development of new diagnostic test and test a hypothesis for new drug discovery platform for tuberculosis. Sanjeev Sinha, Dept. of Pharmaceuticals, Govt. of India. (A collaborative project between NIPER, Mohali & AIIMS), 2013, Rs 1.06 crores.

13. Reducing AIDS stigma among health professionals in India. Sanjeev Sinha, NIH, USA(A collaborative UCSF, USA and AIIMS project), 2013, Rs 1.36 crores.
14. Studies on the Prevalence, Risk factors and Outcomes of Cancers in HIV in India. Sanjeev Sinha, Funded by ICMR (A collaborative UCLA, USA and AIIMS project), 2013, Rs 38.5 lakhs.
15. The Role of Vitamin D in prevention of tuberculosis (MTb) disease in HIV-infected individual. Sanjeev Sinha, ICMR, 2013, Rs 39.4 lakhs.
16. Genome sciences and predictive medicine. Uma Kumar, DBT, Sept 2008 –Aug 2014, Rs 28.3 lakhs.
17. To study the effect of climate, air pollution, and socio economic factors on health (Immunological) and disease state (Rheumatoid Arthritis). Uma Kumar, DST, May 2013-April 2016, Rs 55.8 lakhs.
18. Representation, trafficking and functional interaction of effector and regulatory T cells: Impact on local immune response in rheumatoid arthritis. Uma Kumar, DST, April 2012-March 2015, Rs 18 lakhs.
19. Bristol Myers Squibb IM101174 Study – A Phase IIIB Multicentre, Randomized Double-Dummy Study to Compare the Efficacy and Safety of Abatacept Administered Subcutaneously and Intravenously in Subjects with Rheumatoid Arthritis Receiving background Methotrexate and Experiencing an Inadequate Response to Methotrexate. Uma Kumar, BMS, Nov 2008-Jan2015, Rs 14.2 lakhs.
20. A multicentric, randomized, active controlled parallel group study to evaluate efficacy, tolerability and safety of Adalimumab (Zydus) and Adalimumab (Reference) in patients with Rheumatoid Arthritis. Uma Kumar, Zydus, Jan 2014-Aug 2014, Rs 4.8 lakhs.
21. A Prospective, Comparative, Open Label, Randomized, Multicenteric Phase III study to compare the safety and efficacy of Etanercept of Intas Biopharmaceuticals Ltd. against Enbrel in patients with Active Rheumatoid Arthritis. Uma Kumar, Intas, Jan2012-July 2014, Rs 1.2 lakhs.

Completed

1. A Randomized, double-blind placebo-controlled, clinical trial to evaluate the immunogenicity and safety of H1N1-09 Influenza Virus-Like particle(VLP) Vaccine. S K Sharma, Cadilla Pharmaceuticals Ltd, 3Months, 2014 Rs. 3.46 lakhs.
2. IRIS in HIV/AIDS Patients with and without TB Co-Infection Receiving HAART. S K Sharma, Indian Council of Medical Research (ICMR), New Delhi, 2011 – 2014, Rs. 45.4 lakhs.
3. Proteomic study of tuberculosis pleural fluid to identify potential biomarker(s) for early and definitive diagnosis of tuberculosis. S K Sharma, Indian Council of Medical Research (ICMR), New Delhi, 2011-2014, Rs. 47.7 lakhs.

Departmental projects

Ongoing

1. Clinico-pathological and radiological profile of peripheral lymphadenopathy.
2. The Effect of implementation of an antibiotic stewardship program in a medical ward of a tertiary care hospital.
3. Association of ectopic fat deposits with metabolic syndrome.
4. Fatty acid composition of abdominal subcutaneous adipose tissue compartments in NAFLD.
5. Study of autonomic functions in nonalcoholic fatty liver disease.
6. Magnitude of psychiatric comorbidities in patients with rheumatoid arthritis.
7. Outcome of protocol based management of pain, agitation & delirium in mechanically ventilated patients in Medicine Department at AIIMS, New Delhi.
8. Evaluation of current management practices of patients admitted with dengue fever in department of medicine AIIMS.
9. Outcome of implementation of critical care bundles in patients with severe sepsis and septic shock.
10. A study of prevalence of human papillomavirus infection and abnormal cervical cytology in human immunodeficiency virus infected women.

11. Oral candida infection amongst patients living with HIV/ AIDS.
12. Evaluation of biomarkers for severity of malaria – A cross sectional cum follow up study.
13. Pathogenetic markers in severe dengue fever.
14. Prolonged fever and the diagnostic utility of FDG-PET/CT among HIV/AIDS.
15. Comparison of cytokines among severe and non severe dengue infection.
16. Study on the level of satisfaction in patients attending Govt Health Facility in AIIMS outreach outpatient department Jhajjar.
17. Disability and family burden in rheumatoid arthritis.
18. Survival analysis of PLHA with Adult HIV progression model.
19. Evaluation of GeneXpert (Xpert® TB/RIF) in sputum-smear negative and sputum-scarce patients with suspected tuberculosis using bronchoalveolar lavage sample.
20. Evaluation of GeneXpert in the diagnosis of tubercular lymphadenopathy.
21. To study predictors of response to treatment in case of lupus nephritis.
22. Clinicopathological correlation without come in patients with lupus nephritis.
23. Metabolic abnormalities and sleep disorders in polycystic ovary syndrome.
24. Study of haematological and coagulation abnormalities in severe malaria.
25. To study the effect of mobile phone use on sleep, well-being and neuro-cognitive function.
26. Diagnostic accuracy of xpert MTB/RIF assay in stool samples in intrathoracic childhood tuberculosis.
27. Utility of PET/CT/HRCT Chest in the assessment of disease activity of interstitial lung disease in patients with connective tissue diseases.
28. Endothelial function in moderate severe obstructive sleep apnea syndrome.
29. Utility of urinary markers in patients with lupus nephritis.
30. Development of nanocarrier for targeted therapy of rheumatoid arthritis.
31. A study of psycho-neuro immunological correlates of fibromyalgia : Effect of rTMS.
32. Efficacy of oral rebamipide for the treatment of dry eye in patients with Sjogren's syndrome-A pilot study.
33. Effect of transcranial magnetic stimulation on pain modulation status in fibromyalgia patients.

Completed

1. Study of the diagnostic utility of GeneXpert in pleural and lymph node tuberculosis.
2. Clinical, investigative and therapeutic profile of patients presenting with hemoptysis.
3. Predictors of relapse in patients with sarcoidosis.
4. Study of nonalcoholic fatty liver disease and metabolic syndrome in patients with chronic kidney disease.
5. Hepatic left lobe volume as an indicator of adiposity and related metabolic abnormalities.
6. Evaluation of current antibiotic usage in patients with systemic inflammatory response syndrome and outcome implications of use of antibiogram in patients admitted in tertiary care hospital.
7. Evaluation of current practices in central venous catheter insertion and maintenance bundles and the outcomes of implementing the central venous catheter bundle.
8. Management of ART induced dyslipidemia with statins in HIV/AIDS Patients.
9. Biomarkers in severe dengue fever.
10. Ovaian failure with cyclophosphamide in women less than 40 years of age.
11. Prevalence of TTP in SLE.

Collaborative projects

Ongoing

1. Childhood Obesity in India: A multi center study on its measurements and determinants (Endocrinology and Metabolism, A.I.I.M.S., and INCLEN).
2. To study the genetic polymorphisms and correlations with cytokine and hormone levels of Macrophage migration inhibitory factor (MIF), Peroxisome Proliferator – Activated, Receptor- γ (PPAR γ), Interlukin-6 (IL-6), C reactive protein (CRP), Insulin receptor substrate (IRS), Insulin receptor substrate (IRS) 1 and Leptin receptor genes in Obstructive sleep apnea syndrome (OSAS) and non alcoholic fatty liver disease (NAFLD) (Pulmonary Medicine and Sleep Disorders).
3. Role of acute lung injury biomarker gene polymorphisms in obstructive sleep apnea (Pulmonary Medicine and Sleep Disorders).
4. Influence of genetic polymorphisms, clinical and biochemical parameters in determining susceptibility to nonalcoholic fatty liver disease in Indian overweight adolescents (Pediatrics).
5. Obesity and metabolic syndrome: The role of nutrition, physical activity, and inflammation (Pulmonary Medicine and Sleep Disorders).
6. Pentavalent Antigenic Peptide (PAP) based approach towards diagnosis of dengue infection (Biochemistry).
7. WHO Collaborating Center for Training and Research on Extrapulmonary Tuberculosis, Co-morbidities associated with Tuberculosis and Drug resistant Tuberculosis (WHO).
8. Indian Extra Pulmonary TB (INDEX-TB) Guidelines-2015 (CTD, MoH& FW GoI).
9. Understanding biology of Rheumatoid arthritis: Functional characterization of some/novel genetic determinants (Delhi University).

PUBLICATIONS

Journals: 26

Abstracts: 4

Chapters in Books: 12

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 Clinic (Monday 2 PM), Rheumatology Clinic (Thursday 2 PM) and Chest Clinic (Friday 2 PM). The Department also runs ART centre, DOTS centre and DOTS-Plus site under national programs. 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 6 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

New cases	71,352	Old cases	66,650
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Infectious Disease Clinic

New cases	196
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Sleep Clinic

New cases	339	Old cases	359
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Chest Clinic

New cases	377	Old cases	775
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Rheumatology Clinic

Total patients registered	5220
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Antiretroviral (ART) Centre

Total registered till March 2015	8693	ART started till March 2015	4282
Regular follow up till March 2015	3207	ART started in 2014-15	563
Integrated counselling and Testing Centre (ICTC)			
Testing	3279	Positive	589

AIIMS DOTS Centre

Total patients started on DOTS (April 2014-March 2015)

Cat I	75	Cat II	33
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DOTS-Plus site

Cat IV	423	Cat V	17
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Laboratories:**Sleep lab:**

Overnight supervised in lab polysomnography	339	EZ Scan	90
Ambulatory monitoring of blood pressure	276	Endothelial dysfunction studies	66

PFT Lab:

Pulmonary Function Test:	5246	6 Minute walk test:	297
CPET	20		

Number of Bronchoscopy done: 106

EBUS 25

ADA/ACE Lab:

Adenosine deaminase tests:	191	ACE tests:	226
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Intermediate Reference Laboratory (IRL), AIIMS, New Delhi:

No. of samples for AFB sputum smear	6030	No. of samples for Solid culture	560
No. of samples for MIGIT-960 (Liquid Culture)	4171		
No. of samples for solid drug Susceptibility test	207		
No. of samples for liquid DST		87	
No. of samples for Line Probe Assay (LPA)	1935	No. of samples for GeneXpert	2560

Clinical immunology lab:

Number of blood samples received	14510	Number of tests done	42362
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Test	Number	Test	Number
RF	7975	ANA	10760
Anti-dsDNA	3954	C3	3313
Serum IgG,IgA,IgM	3755	Cryoglobulins	470
ANCA	4448	ACL	4654
Anti-LKM-1	1539	ASMA	1494

Rheumatology Day Care (6 beds)

Intravenous pulses of cyclophosphamide and biological	1049
Joint and soft-tissue injections	1076
Procedures (Muscle Nerve & Skin Biopsy)	27

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor S.K. Sharma was Chairperson of the team which drafted first edition of INOSA Guidelines published in 2014 and is now working on studies across India on OSA prevalence. He was a member of the Expert Committee which drafted Global Guidelines for WHO, Geneva on LTBI in 2014. He is Advisor of the National Task Force on the Involvement of Medical colleges in TB Control Programme of the Govt. of India & Chairperson of several committees in DBT, DST, ICMR & Ministry of Health & FW, GoI; acted as Technical Advisor to Regional Director, WHO SEARO on Vector Borne Diseases. He is a Chairperson of Expert Committee for evaluating the proposals on “The possible impact of EMF radiation exposure from mobile towers and handsets on the life and related R & D initiatives” of the Department of Science and Technology, Ministry of Science and Technology, GoI. He is actively working on Tribal Health in India (ICMR’s Field Station at Keylong; Lahaul & Spiti in Himachal Pradesh). He is the chairperson of the Ethics Committee of Teerthanker Mahaveer University, Moradabad (affiliated to the Government of U.P.). He is chairperson of the Committee which is drafting National EPTB Guidelines in collaboration with Central TB Division, MoH& FW, Govt of India and Expert Member for “Malaria Diagnostic & Chemotherapy and prospects of Malaria Elimination in the Country” Ministry of Health and Family Welfare, Govt. of India. He is also a member of Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh to Review the medical and scientific audit of the research. He participated in the Regional Meetings of National TB Control Programme Managers and Partners, New Delhi, from November 10-14, 2014 and also participated in the WHO Regional Meeting on Strengthening Health systems to address comorbidities in South-East Asia region, Jaipur from November 18- 20, 2014. He was an expert member of the Selection Committee of Hamdard Institute of Medical Sciences & Research and Hah Centenary Hospital Jamia Hamdard, New Delhi for selection of faculty. He was invited as an expert member for interim reviews of the SAC approved on-going projects and future proposals of the Regional Medical Research Centre, Indian Council of Medical Research, Bhubaneswar. He was invited by Chest Research Foundation, Pune in the National HoD meet as Chairperson. He was External Examiner for Fellowship Examination (FCPS Part-II – clinical & viva voce) in the Department of Medicine at Bangladesh College of Physicians and Surgeons (BCPS), Dhaka, Bangladesh from January 17-20, 2015. He got Prestigious Dr. Jivraj Mehta Award in clinical and service activities of Association of Physicians of India and AIIMS Excellence Research Award and most prestigious and highest Chest Oration Award- Professor Raman Vishwanathan Memorial Chest Oration award of the National College of Chest Physicians, India NCCP (I) in NAPCON 2014 and got the best Referee Award for the Journal Lung India (Journal of the Indian Chest Society) in NAPCON 2014. He is editor for Indian Journal of Chest Disease and Allied Sciences, Associate Editor for Indian Journal of Tuberculosis, member editorial board for Lung India, Indian Journal of Sleep Medicine, Indian Journal of Medical Research, advisory board for Journal of Association of Physicians of India (JAPI), reviewer for International Journal of TB and other Lung Diseases, The Lancet Public Health, Medicine (Baltimore), Sleep Medicine, BMC (BioMed Central) Pulmonary Medicine, Journal of Antimicrobial Chemotherapy, Lung India, Indian Journal of Chest Diseases and Allied Science, Indian Journal of Medical Research, Journal of Association of Physician of India (JAPI) and Indian Journal of Tuberculosis.

Professor Rita Sood was invited as an executive member of WFME (World Federation for Medical Education) & President of SEARAME to attend the collaborative meetings of WFME & Turkish Association for accreditation of Medical education and Association for Medical education in Western Pacific region and deliver talks in April & June 2014 respectively. She participated in and co-chaired the Consultation meeting on “Enhancing the contribution of regional networks to the strengthening of teaching of public health in undergraduate medical education in the South-East Asia Region, Bangkok, Thailand from 28-29th April’2014. She also participated in the Expert Group meeting to review the Draft Regional Strategy on Strengthening Health Workforce Education and Training in South-East Asia Region, Bangkok, Thailand from 29th to 30 May’2014, and the Regional meeting on Strengthening Human Resources for Health in South-East Asia: Time for Action and Commitment at Thimphu, Bhutan from 19th to 21st Nov.14. She was invited to be on the Advisory Group of Reliance Foundation & University of Chicago Joint venture to develop cases for Medical education using simulation technology. She is invited member of the AFMC (The Association of Faculties of Medicine of Canada) Charles Boelen International Social Accountability Award Selection Committee for Social accountability award. She is member of Board of Selection Committee for FAIMER Fellows, Philadelphia and FAIMER Regional Institute and Ad-hoc Board of studies in Medical Education & Technology at MUHS Mumbai on 12th Sept.14. She contributed to drafting of white paper on ‘Public health education in India: The road ahead’ by CII, 2012-14. She was advisor for Combined Medical Services Examination 2014 at UPSC, New Delhi from 13th -17th Oct.2014. She was invited by Board of Studies as an external expert for the curriculum meeting at AIIMS, Rishikesh from 9th to 10th Feb.15 and for undergraduate course at Sultan

Qaboos University (SQU) in Oman from 8th to 12th June'2014 and Masters in health Profession education at Kwa Zulu Natal University, South Africa. She participated in the National meeting for Implementation of Masters in Health Professions education (MHPE) under the Obama-Singh 21st Century Knowledge initiative project at MUHS, Pune, 30-31st March'2015 and in Executive Council meeting of WFME at Istanbul University, Istanbul from 14th to 15th April'2014 & in the 2014 Annual Meeting of Association for Medical Education in the Western Pacific Region (AMEWPR), Taipei, Taiwan, 6th to 8th June'2014. She also served as chairperson of Teaching schedule committee, committee for research projects for intra mural grant, member of ethics sub-committee, annual report editorial committee. She was Chairperson – Round table discussions- Global recognition of medical competence and Global standards and accreditation of medical schools, 3rd SEARAME Conference Enhancing Clinical Education in health professions, 13th Nov.14, Faculty of Medicine University of Colombo, Colombo, Sri Lanka.

Professor Naveet Wig is member of expert Group of ICMR on establishment of Antimicrobial Resistance Surveillance Network and ICMR Technical Resource Group on HIV/AIDS and member of HIV/AIDS Project review committee (PRC) of ICMR. He continues to be a member of IndiaCLEN Program Evaluation group.

Professor Ashutosh Biswas is Temporary Advisor to WHO, SEARO, New Delhi in Vector Borne Disease; he is one of the National Expert members of Rapid Response Team of Ebola Virus Disease Outbreak management formed by Director General of Health Services (DGHS), Ministry of Health & Family Welfare, Govt. of India; Expert member of World Health Organization (WHO), Country Office for India for preparing Indian National Guideline for Clinical management of Dengue Fever; Member Expert of National Institute of Malaria Research (NIMR), Ministry of Health & Family Welfare, Govt. of India; Member expert of Human Right Commission, Govt. of India responsible for giving expert opinion in case of custodial death for legal proceeding; National Trainer for Training of the Trainer (TOT) programme in India organized by the DGHS, Ministry of Health & Family Welfare, involved in training regarding awareness preparedness and clinical management of Ebola virus disease across various region of India; working as an expert with National Vector Borne Disease Control Programme (NVBDCP), Ministry of Health and Family Welfare, GoI on evaluating different National Polices for prevention control and management of Vector Borne Diseases; Elected General Secretary of Indian Association for Medical Informatics (IAMI) and also organized a National Conference on Medical Informatics, 2014 (NCMI - 2014); Joint Secretary of Asia Pacific Conference organized in New Delhi; Expert member of selection board for combined Medical Service Examiner Union Public Service Commission (UPSC), New Delhi; Expert member of selection board of the Faculty in IGIMS, Patna, Bihar 2014; Member of Disease Prevention and Outbreak Cell, AIIMS; Special invitee by Delhi Doordarshan Kendra (DDK) for telecasting Health Show Program on Ebola Virus (October, 2014) and Dengue Fever (November, 2014); Special invitee by All India Radio (AIR) for all India broadcasting Health Program on Ebola Virus (August, 2014), Water Borne Diseases (September, 2014) and H1N1Influenza Virus (March, 2015).

Professor Uma Kumar organized Delhi Rheumatology Association monthly clinical meetings. She is President-Elect of Delhi Rheumatology Association for the year 2014-2016. She also trained physicians from Govt. institutions (national and international) in Rheumatology. She is elected scientific committee member for Asia Pacific League against Rheumatology 2015 (APLAR 2015). She has been nominated by Guru Gobind Singh Indraprasth University expert member Joint Assessment Committee for year 2014-2015. She was 'Guest of Honor' at Bharati Vidyapeeth's College of Engineering Degree Distribution Ceremony on 10 Jan 2015. She has also been elected CDSCO 'Subject expert (Rheumatology)' by DCGI.

Dr Sanjeev Sinha is member of Medical Board Antarctica Expedition, Govt. of India, member of Scientific Committee, NACO, Ministry of Health & FW, Govt. of India and member of Health wellness programme, Ministry of Tourism, Govt. of India.

Dr Manish Soneja is reviewer for Indian Journal of Medical Research, International Journal of Advanced Medical and Health Research and BMJ Case Reports.

VISITING SCIENTIST

1. Dr Prasant Chhajed (Mumbai, India) delivered a guest lecture on Endobronchial Ultrasound (EBUS) on September 27th 2014.
2. Professor Atul Malhotra (USA) delivered a guest lecture on obstructive sleep apnea on November 26th 2014.
3. Dr Sudhakar Pipavath (USA) delivered a guest lecture on Interstitial Lung Diseases: revisited on December 8th 2014.

9.20 Microbiology

Professor and Head
Jyotish Chandra Samantaray

Rama Chaudhry Bimal K Das	Professors Arti Kapil Bijay Ranjan Mirdha Immaculata Xess	Lalit Dar Benu Dhawan
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Seema Sood	Additional Professors	Urvashi B Singh
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Aashish Choudhary Gagandeep Singh	Assistant Professor Sarita Mohapatra Archana Angrup	Hitender Gautam Nishant Verma
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HIGHLIGHTS

The Anaerobic and Special Pathogens Laboratory has been studying the prevalence of *Legionella pneumophila* in environmental samples. Standardization of a multiplex PCR for the detection of molecular markers of pathogenic potential of *L. pneumophila* isolates from environment has been done to ensure routine monitoring of the hospital environment at AIIMS. A study on the application of human gastrointestinal microbial diversity by molecular methods and application of metagenomics for isolation of novel bacteriocins funded by the Department of Biotechnology is also being conducted by the laboratory. This study will help to understand role of gut microflora in colonic health and provide insight into the microbial community in IBD and colon cancer and help establish microbial biomarkers in these diseases.

The Virology Section provided diagnostic services during the Influenza A H1N1 (pandemic strain) swine flu outbreak (February-April 2015) by performing the real time multiplex RT-PCR assay for patients at AIIMS as well as for those admitted at other hospitals in south Delhi.

The Mycology laboratory started with routine molecular diagnosis i.e. PCR for cases of clinically suspected Histoplasmosis and Cryptococcosis. With the ever increasing burden of invasive fungal infections we hope to introduce more molecular tests for fungal diseases with quality reports and short turnaround time.

The TB section has filed two patents for new technologies for early and efficient diagnosis of TB during the time period in question. One of the patents has been designed in the form of an economical kit for quick diagnosis of TB, MDR-TB and XDR-TB. This kit is undergoing validation in a multi-centric project under funding from DBT and ICMR and appears promising. If found useful, it will change the basic diagnostic modalities being used under the Revised National TB control program (RNTCP).

EDUCATION

Undergraduate

MBBS - III, IV and V semesters

BSc (Nursing) - 2 semesters

Postgraduate

PhD (Microbiology): Lecture - Once/week

Journal Club - Once/week

MD (Microbiology): Lecture - Once/week

Journal Club - Once/week

Tutorial - Twice/month

Practical exercise presentation: Twice/month

Short-term training

The department provided short-term training to 1 MD candidate from the Army Research & Referral Hospital, New Delhi; the Virology lab. provided short-term training to 1 MD candidate from Govt. Medical College, Tripura. In addition, 20 MSc candidates received short-term training in various labs. of the department.

CMEs/Workshops/Symposia/National and International Conferences:

1. Hands-on workshop on the laboratory diagnosis of Dengue/Chikungunya for microbiologists, pathologists and lab. technicians of Sentinel Surveillance Hospitals - Organized by South Delhi Municipal Corporation (SDMC) in collaboration with the Virology Lab. (Dr. Lalit Dar & Dr. Aashish Choudhary)- 26-28 August 2014 at Virology lab, Department of Microbiology, AIIMS, New Delhi.
2. Developing a Rights-Based Approach to TB, organized jointly by University of Chicago Law School and AIIMS (Dr. Urvashi B Singh) on 5 -6 December, 2014 at the University of Chicago Centre in New Delhi.
3. 'Investigation of an Outbreak' during the 15th Congress of the International Federation of Infection Control - XIIIth National Conference (Dr. Arti Kapil) 21st March 2015 at AIIMS, New Delhi.
4. World TB Day- Symposium cum CME- 'Mapping the Missing Millions'(Dr. Urvashi B Singh)- 23 March 2015 at AIIMS, New Delhi.

Lectures delivered

Rama Chaudhry: 3

Bijay Ranjan Mirdha: 1

Urvashi B Singh: 3

Hitender Gautam: 1

Arti Kapil: 9

Immaculata Xess: 1

Aashish Choudhary: 1

Lalit Dar: 9

Seema Sood: 1

Sarita Mohapatra: 1

Oral Papers/Posters presented: 37 *IUSTI-IASSTD & AIDS Scholarship 2014: 1

RESEARCH

Funded projects

Ongoing

1. Analysis of human gastrointestinal microbial diversity by molecular methods and application of metagenomics for isolation of novel bacteriocins. Rama Chaudhry, DBT, 2011-15, Rs 1 crore.
2. Detection *Legionella pneumophila* from hospital environment and development of LAMP-PCR for rapid detection of *Legionella* species from environmental sample. Rama Chaudhry, AIIMS, 2013-15, Rs 5 lakhs.
3. Community and hospital burden of antibiotic resistance in the Indian pediatric population; impact of probiotics and geography. Rama Chaudhry, ICMR, 2012-15, Rs 23.6 lakhs.
4. Nodal Center for National surveillance of Antimicrobial Resistance: 2013-2017. Arti Kapil, ICMR, 2014-19, Rs 60 lakhs (per annum).
5. Surveillance of infection in neonates- An ICMR task force study (ICMR head quarters and 6 centers in India). Arti Kapil, ICMR, 2011-15, Rs 15 lakhs.
6. Referral centre for Early Infant diagnosis of HIV by PCR. Lalit Dar, NACO/DSACS, Continuous, 2012 Ongoing, Rs 8 lakhs (per annum).
7. Apex Reference Laboratory of the National Vector Borne Disease Control Program (NVBDCP) for Dengue and Chikungunya. Lalit Dar, NVBDCP, Continuous, 2010-Ongoing, Rs 3 lakhs (per annum).
8. Multi-site epidemiological and virological monitoring of human influenza surveillance network in India, Phase II. Lalit Dar, ICMR, Continuous, 2009-Ongoing, Rs 60 lakhs (per annum).
9. Quantitative real time PCR and genotyping for human cytomegalovirus (HCMV) in ulcerative colitis. Lalit Dar, ICMR, 2014-17, Rs 7 lakhs.
10. Characterization of *Streptococcus pneumoniae* from invasive disease and healthy individuals (commensal throat flora) by phenotypic and molecular methods. Bimal Das, ICMR, 2012-15, Rs 12 lakhs.

11. Standardization of real time PCR for diagnosis of acute bacterial meningitis and correlation of humoral and cell mediated immune response in the CNS. Bimal Das, AIIMS, 2014-15, Rs 5 lakhs.
12. Population genetics study of *Pneumocystis jirovecii* in respiratory clinical specimens and its correlation with the clinical status of patients with *Pneumocystis pneumonia* (PCP). BR Mirdha, SERB, DST, 2013-16, Rs 34 lakhs.
13. Population Genetic study of coccidian with special reference to *cryptosporidium* species and *Enterocytozoon bineusi* and its correlation with transmission detection and disease risk in patient with diarrhea. BR Mirdha, ICMR, 2013-15, Rs 20 lakhs.
14. Molecular characterization of clinical isolates of Vancomycin and High level Gentamicin Resistant *Enterococcus faecium* and *Enterococcus faecalis*. Benu Dhawan, ICMR, 2012-15, Rs 33.8 lakhs.
15. Development of Immunoblot assay for diagnosis of sub-clinical Cryptococcosis” in renal transplant patients. Immaculata Xess, DBT, 2012-15, Rs 40 lakhs.
16. Antifungal Susceptibility testing and Genotyping of clinically isolated *Cryptococcus* strains from Delhi and other parts of India”. Multicentric study MKCG MC Orissa, NEIGRIHMS 1, JIPMER Puducherry and UCMS Delhi. Immaculata Xess, DBT , 2012-15, Rs 70 lakhs.
17. A Rapid Test for Simultaneous Identification & Detection of Antimicrobial Resistance at Point of care for Bacterial Infections: *N. gonorrhoeae* as a Prototype. Seema Sood, Grand Challenges- Canada, 2013-15, Rs 8 lakhs.
18. Identification & Evaluation of *Mycobacterium tuberculosis* antigen as Biomarkers in Clinical Samples from Pulmonary and Extra pulmonary Tuberculosis Patients. Urvashi B Singh, ICMR, 2012-15, Rs 45 lakhs.
19. Role of early diagnosis of drug resistant tuberculosis in guiding therapeutic strategies in treatment of Extra pulmonary tuberculosis. Urvashi B Singh, ICMR, 2012-15, Rs 45 lakhs.
20. Development and Evaluation of in-house line probe assay for rapid detection of MDR and XDR Tuberculosis. Urvashi B Singh, DBT, 2011-15, Rs 37 lakhs.
21. Evaluation of molecular methods (PCR, immunohistochemistry) against conventional methods (histopathology, culture, AFB staining in endometrial samples) and laparoscopy in detection of genital tuberculosis in infertile women. Urvashi B Singh, ICMR, 2012-15, Rs 39 lakhs.
22. Evaluation of immunological correlates of treatment failure in Category I, II and MDR Pulmonary tuberculosis patients on treatment.. Urvashi B Singh, AIIMS, 2014-15, Rs 5 lakhs.
23. Validation of indigenously developed technologies for the diagnosis of pulmonary tuberculosis, and drug resistant tuberculosis. Urvashi B Singh, DBT, 2014-15, Rs 59 lakhs.

Completed

1. Detection of *Mycoplasma pneumoniae* and *Legionella pneumophila* in respiratory tract infection by molecular assays: A multicentric study. Rama Chaudhry, ICMR, 2011-14, Rs 49.6 lakhs.
2. Characterization of putative prolipoprotein signal peptidase gene from *Mycoplasma pneumoniae*, a potential drug target. Rama Chaudhry, ICMR, 2012-14, Rs 30 lakhs.
3. Multi-center Study in Antimicrobial Resistance Monitoring of *Salmonella* Typhi and *Salmonella* Paratyphi A- An attempt to make national guidelines to treat Enteric fever. Arti Kapil, ICMR, 2010-14, Rs 30 lakhs.
4. Molecular characterization of *Neisseria meningitidis* isolates from cases of acute bacterial meningitis in Delhi and adjoining areas. Bimal Das, AIIMS, 2012-14, Rs 5 lakhs.
5. In-vitro assessment of potential antimicrobials for *N. gonorrhoeae*. Seema Sood, AIIMS, 2012-14, Rs 5 lakhs.
6. Establishment of networking for *N.gonorrhoeae* surveillance in India. Seema Sood, ICMR, 2010-13, Rs 1.3 crores.

Departmental projects

Ongoing

1. Rapid diagnosis of scrub typhus by molecular methods.
2. Diagnosis of *Legionella pneumophila* infection by molecular methods and analysis of clinical and environmental isolates of *Legionella pneumophila* using molecular markers.
3. Characterization of *Lactobacillus* strains & assessment of their immunomodulatory effect.
4. Study of human intestinal microbiota by metagenomics approach and host innate immune response in obese and lean individuals.
5. Characterization of *Burkholderia cepacia* causing infections in patients with cystic fibrosis.
6. A study on alternate antimicrobial agents against Typhoidal *Salmonellae*.
7. Quantitative real time PCR and genotyping for human cytomegalovirus (HCMV) in ulcerative colitis.
8. A molecular study on DNA viruses in the genital tract of HIV seropositive women.
9. 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.
10. Molecular characterization of *N. gonorrhoeae* strains with decreased susceptibility to extended spectrum cephalosporins.
11. High-resolution melting (HRM) curve analysis for Detection of Decreased Susceptibility to Extended Spectrum Cephalosporins in *N. gonorrhoeae*.
12. A Pilot study to determine *N. gonorrhoeae*, *C. trachomatis* co-infection rates in symptomatic patients attending STI clinics.
13. Role of *Mycobacterium tuberculosis* in the etiopathogenesis of sarcoidosis.

Completed

1. Study of putative prolipoprotein signal peptidase gene homologue in *Mycoplasma pneumoniae*.
2. Detection of *Blastocystis hominis* and its molecular typing in patient of Irritable Bowel Syndrome: A cross sectional study.
3. Clinical & microbiological characteristics of bacteraemia caused by coagulase negative staphylococci (CONS) in a tertiary care hospital.
4. Analysis of putative virulence factors and molecular typing of clinical isolates of vancomycin and high-level gentamicin resistant *Enterococcus faecium* and *Enterococcus faecalis*.
5. Prevalence of *Chlamydia trachomatis* in patients with infertility and urogenital infections and genotyping by PCR-RFLP and *OmpA* sequencing.
6. Evaluation of biosensor technology in the laboratory diagnosis of gonorrhoea.
7. In-vitro evaluation of alternate antimicrobial options for *N. gonorrhoeae*.

Collaborative projects

Ongoing

1. Analysis of human gastrointestinal microbial diversity by molecular methods and application of metagenomics for isolation of novel bacteriocins (DBT).
2. Epidemiological study of respiratory pathogens in acute respiratory tract infection among children and Elderly in India (Centre for Community Medicine).
3. Identification of Plasmodium falciparum cytoadherence molecules in cerebral malaria (ICGEB, New Delhi).
4. Zygomycetes and mucormycosis: Epidemiology, taxonomy and molecular Biology (Microbiology, PGIMER, Chandigarh).
5. Fomite contamination and its correlation with VAP/HAP occurrence in the ICU: A prospective study (Pulmonary Medicine & Sleep Disorders).

6. Application of electronic apex locator as an adjunct for optimized sodium hypochlorite mediated root canal disinfection- An ex-vivo study (Centre for Dental Education & Research).
7. Elucidating Role of microRNA in the pathogenesis of active generalized vitiligo and in pigment regulation (Dermatology).
8. Role of Gene Xpert MTB/RIF assay in the diagnosis of intra-thoracic tuberculosis in children (Pediatrics).
9. Evaluation of Clinical and Pharmacological parameters as risk factors for relapse and treatment failures in Pulmonary Tuberculosis patients on Category II regimen (Pulmonary Medicine & Sleep Disorders).
10. A study on treatment of Genital Tuberculosis-Randomized Controlled Trial of either discontinuation at 6 months or continuation till 9 months after initial response to 6 months RNTCP category I treatment (Obstetrics and Gynaecology).

Completed

1. Administration of *Lactobacillus rhamnosus* GG for the prevention and treatment of *Clostridium difficile* infection and subsequent diarrhoea in Indian population (The Energy Research Institute, TERI).
2. Prevalence of antibiotic resistant *Propionibacterium acnes* in adolescent and peri adolescent acne before and after treatment with oral retinoids (Dermatology and Venereology).
3. Dermatological manifestations of Reiter's disease (Dermatology and Venereology).
4. Effect of 'apical widening and clearing' on apical ramification and bacterial load in root canals- An ex vivo stereomicroscopic and microbiological study (Centre for Dental Education & Research).
5. Role of Initial & Serial Endotracheal aspirate surveillance cultures to predict causative pathogens for VAP (Pulmonary Medicine & Sleep Disorders).
6. Development and Manufacture of Cost-Effective Glucose Biosensor for Clinical Diagnostics (Department of Biotechnology, Delhi Technological University).
7. Role of ATT for positive Endometrial Aspirates DNA PCR in reproductive outcome in infertile patients in Indian setting: A randomized trial (Obstetrics and Gynecology).
8. Molecular analysis of MDR and XDR strains of *Mycobacterium tuberculosis* isolated from a tertiary care hospital (National Institute of TB & Respiratory Diseases, Delhi).
9. Role of oral vitamin D as an adjunct therapy in Category I Pulmonary Tuberculosis along With assessment of immunological parameters (Endocrinology and Metabolism).

PUBLICATIONS

Journals: 49

Chapters in Books: 3

PATIENT CARE

Name of assay/test/investigation	No. of tests performed	Name of assay/test/investigation	No. of tests performed
BACTERIOLOGY LAB.		VIROLOGY LAB.	
Pus samples	35,474	Influenza real time multiplex RT-PCR	2,699
Urine samples	40,515	HSV 1&2 DNA PCR (CSF, GUD, Ocular etc.)	424
Blood samples	48,202	HCMV DNA PCR (Urine, Colonic biopsy etc.)	362
Sputum/Throat swab/Tracheal swab samples	28,105	HIV-1 proviral DNAPCR(Early Infant Diagnosis)	1,108
CSF samples	12,229	Cell culture (Influenza, Dengue, HSV 1&2)	228
Stool samples	2,898		

Antimicrobial susceptibility testing		HCMV pp65 antigenemia (Immunofluorescence)	151
Pus/Exudates/Tissue	17,872	Dengue NS1 antigen (ELISA)	77
Urine	13,157	Anti-Dengue IgM (ELISA)	1,157
Blood	7,015	Anti-Chikungunya IgM (ELISA)	79
Respiratory samples	16,223	Anti-Japanese Encephalitis IgM (ELISA)	19
CSF/Sterile samples	882	Complement fixation test (CFT)-for SSPE diagnosis	204
Stool	82	Tzanck smear	10
Total	2,22,654	Total	6,518
HOSPITAL INFECTION CONTROL (HIC) LAB.		HIV LAB.	
Surveillance cultures	18,803	HIV testing	3,279
CSSD Monitoring	441	CD4 counts (Flowcytometry)	5,538
Water samples	2,183	Total	8,817
Total	21,427	Patients counselled at ICTC centre	3,344
ANAEROBIC, SPECIAL PATHOGENS & MYCOPLASMA LABS.		MYCOLOGY LAB.	
Anaerobic culture	1,122	Respiratory samples (BAL,ETA, Tracheal aspirate,Sputum etc.)	3,491
<i>C. difficile</i> stool culture	248	Urine	1,805
<i>C. difficile</i> ELISA (Toxin A & B)	247	CSF	809
<i>C. difficile</i> PCR & typing	372	Swabs	375
Campylobacter stool culture	06	Pus	589
Bartonella culture	09	Tissue/Biopsy	1236
Anti-Bartonella IgM (IFA)	09	Nail/Hair/Skin	215
Bartonella PCR	02	Bone Marrow	178
Leptospira culture	247	Blood	1823
Anti-Leptospira IgM (ELISA)	259	BACTEC culture	35
Anti- <i>Legionella pneumophila</i> IgM (ELISA)	140	Cryptococcal antigen detection (Latex agglutination)	562
Anti- <i>Legionella pneumophila</i> IgG (ELISA)	19	Anti-Aspergillus antibody (Immunodiffusion)	52
<i>Legionella pneumophila</i> Urine Antigen	14	Aspergillus Galactomannan antigen (ELISA)	719
Legionella culture	124	Anti-Histoplasma antibody (Immunodiffusion)	68
Legionella environmental sampling	40	Miscellaneous (Pleural/Peritoneal fluid, Surveillance plate OT etc.)	1,655
<i>Legionella pneumophila</i> PCR	140	Histoplasma PCR	05

Scrub typhus IgM ELISA	162	Cryptococcus PCR	05
Scrub typhus IFA	162	Anti-fungal susceptibility testing	65
Scrub typhus PCR	162	Total	13,687
Anti- <i>Mycoplasma pneumoniae</i> IgM	163		
Anti- <i>Mycoplasma pneumoniae</i> IgG	23	PARASITOLOGY LAB.	
<i>Mycoplasma pneumoniae</i> culture	414	Intestinal parasitosis	
<i>Mycoplasma pneumoniae</i> PCR	372	Stool examination- Ova/Parasites (wet mount/concentration)	1,845
<i>Mycoplasma hominis</i> culture	148	Coccidian parasites - mod. acid-fast/special staining	1,845
<i>Mycoplasma hominis</i> PCR	148	Tissue samples	32
<i>Mycoplasma hominis</i> antimicrobial susceptibility testing	12	In-vivo culture	50
<i>Mycoplasma genitalium</i> PCR	148	Malaria	
<i>Ureaplasma urealyticum</i> culture	148	Giemsa staining PS	4,656
<i>Ureaplasma urealyticum</i> PCR	148	Acridine orange (AO) fluorescent staining PS	4,656
<i>Ureaplasma urealyticum</i> antimicrobial susceptibility testing	32	Quantitative buffy coat (QBC)	1,398
Anti- <i>Chlamydia pneumoniae</i> IgM (ELISA)	163	Malaria HRP-II Antigen detection assay (ICT)	598
Anti- <i>Chlamydia pneumoniae</i> IgG (ELISA)	23	Leishmaniasis (Kala azar)	
<i>Chlamydia trachomatis</i> PCR	198	Giemsa staining PS	387
Total	5,630	Acridine orange (AO) fluorescent staining PS	387
		Quantitative buffy coat (QBC)	387
SEXUALLY TRANSMITTED DISEASES (STD) LAB.		Anti-Leishmania rk39 assay (ICT)	987
High vaginal swabs (HVS)	269	Filariasis	
Semen	1,009	Direct examination & concentration of blood	147
Expressed prostatic secretions (EPS)	176	Giemsa staining PS	147
Urethral discharge	02	Acridine orange (AO) fluorescent staining PS	147
Cervical discharge	01	Pneumocystosis (PCP)	
Antimicrobial susceptibility testing		GMS staining/PCR	180
High vaginal swabs (HVS)	52	Free living amoebae (FLA)	
Semen	62	CSF	263
Expressed prostatic secretions (EPS)	08	Parasitic serology	
Urethral discharge	01	Anti-Entameba IgG (ELISA)	157
Total	1,580	Anti-Echinococcus IgG(ELISA/IHA)	130

TUBERCULOSIS LAB.		Anti-Toxoplasma IgG (ELISA)	28
Smear for Ziehl-Neelsen (ZN) staining	12,972	Miscellaneous	
Lowenstein-Jensen (LJ) medium - Culture & Sensitivity	1,848	Examination of aspirates (sputum, pus etc.)	210
MGIT 960 rapid culture	2,174	Total	18,547
BACTEC - Anti-tubercular susceptibility testing	1,050		
PCR for <i>Mycobacterium tuberculosis</i>	4,524		
Genxpert MTB/RIF	1,995		
ADA assay	280		
Total	24,843		

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Rama Chaudhry received IAMM Endowment Lecture Award 2014 by Indian Association of Medical Microbiologist announced at 42nd Conference, Jaipur, 16-19 October 2014, Sanjay Sardana award for best paper in field immunodiagnosics for the paper titled ‘In search of scrub typhus in New Delhi: Evaluation of immunodiagnostic and molecular methods for detection’ at IAMM Delhi Chapter and best paper award for ‘A Non Invasive Technique to Assess Gut Immunity in Healthy Population by Measuring Immunoglobulin Receptor Expression on Viable Colonocytes in 2nd PAi Conference along with an International Symposium on Probiotics and Microbiome-Gut and Beyond” at India Habitat Centre on 3rd and 4th November 2014.

Professor Lalit Dar is member of the HIV Technical Resource Group (Laboratories) of the National AIDS Control Organisation (NACO), Project Evaluation Committee for the North East Twinning Projects of Department of Biotechnology, Govt. of India, Core Committee of the National Accreditation Board for Testing and Calibration Laboratories (NABL) and Ethics Committee of the National Brain Research Institute.

Professor B.R. Mirdha was conferred ‘Fellowship of Indian Academy of Tropical Parasitology’ (FIATP) during VIIth National Conference of Indian Academy of Tropical Parasitology at SGPGI, Lucknow on 7th January, 2014. He is nominated Joint Secretary of Indian Academy of Tropical Parasitology (IATP) for a period of three years (2013-2015), Editorial Board member of Indian Journal of Tropical Parasitology (IJTP), co-opted Editorial Board Member of New Journal of Science (Microbiology), Hindawi Publications (USA) and Executive Committee member of IAMM Delhi Chapter in 2014-15. He is reviewer for international Journals (J Med Microbiol, Mycopathologia, Int J Med Microbiol).

Professor Benu Dhawan was awarded membership to the National Academy of Medical Sciences, India (NAMS) in 2014.

Professor Immaculata Xess received NAWOPIA Best Paper in Mycology Award ‘Trichosporonemia: Incidence rate, molecular identification, genotyping and antifungal susceptibility testing pattern over a 5 year period (2008-2013) in a tertiary care centre in Northern India’ - 38th National Conference of Indian Association of Medical Microbiologists (IAMM), MICROCON 2014: 17-18 Oct.2014.

Dr Seema Sood was awarded IUSTI-IASSTD & AIDS Scholarship-2014 and ICMR Lala Ram Chand Kandhari Award-2012. She is Assistant Editor- Indian Journal of Medical Microbiology (IJMM) and NACO: Appointed Member of TRG (Technical Resource Group) for strengthening of STI/RTI prevention and control program. She was Invited for preparation of M&E Tools for elimination of congenital syphilis (ECS) by WHO. She organized Workshop Faculty “Outbreak Investigation of Health-care associated Infections” –IFIC-HISICON-2015. She also participated in external quality assurance (EQA) programme of WHO GASP (Gonococcal Antimicrobial Surveillance Programme).

Dr Urvashi B. Singh was awarded ‘A N Chakraborty Memorial Prize’ for best published paper in mycobacteriology during the year 2013, IAMM. She is member, National Expert Committee on Diagnosis and Management of TB under RNTCP, 2012 onwards, member of ‘Project review Committee of the task force on Female Genital

Tuberculosis', ICMR, since 2009, member 'STOP TB New Diagnostics Working group' WHO- since 2009, invited Expert in 'Monitoring Meeting of DST Sponsored Projects', 2014, Expert in 'Expert Committee for finalizing validation protocols for Indian Indigenous Technologies', DBT and ICMR since 2014 and Expert in 'Expert Group on Tuberculosis', constituted by DBT for three years, Jan 2015-Jan 2018. She conducted National workshop on DST guided treatment regimens for Drug Resistant TB on Aug 26-28, 2014 at Mumbai.

Dr Aashish Choudhary is reviewer for national journals- 'Indian Journal of Medical Microbiology' and 'Journal of Laboratory Physicians'.

Dr Nishant Verma is a Member of Executive Committee IAMM Delhi Chapter in 2014.

VISITING SCIENTISTS

1. Dr Johan Mouton, Unit Head Research and Development, Department of Medical Microbiology and Infectious Diseases at Erasmus MC, Netherlands delivered lecture on "PK/PD and optimization of treatment" on Nov 28, 2014.
2. Professor Pinaki Panigrahi from the University of Nebraska for collaboration in international projects.
3. Dr K. S. Sachdeva, ADG, RNTCP, delivered lecture on "MDR-TB CONTROL: National Program Effort" on Mar 23, 2015.
4. Dr Reuben Swamickan, USAID, India, delivered lecture on "Need to engage the Private Sector for TB Control" on Mar 23, 2015.
5. Dr Gobardhan Das, Special Centre for Molecular Medicine, JNU, New Delhi, delivered lecture on "Tuberculosis: An ancient disease With modern outlook" on Mar 23, 2015.
6. Dr K M Atmakuri, Assistant Professor, THSTI, delivered lecture on "TB vaccine, a conundrum of sorts?" on Mar.23, 2015.
7. Dr Rajesh Gokhale, Director, IGIB, CSIR, Delhi, delivered lecture on "TB pathogenesis: How to stay Ahead of this game" on Mar 23, 2015.

9.21 Nephrology

Professor and Head

Sanjay K. Agarwal

Professors

Dipankar M. Bhowmik Sandeep Mahajan

Assistant Professor

Soumita K Bagchi

Senior Technical Officer

P.K. Jain

HIGHLIGHTS

The department has done the first swap renal transplant in the Institute. The new state of art reverse osmosis water plant for hemodialysis has been commissioned in the department for providing ultrapure water for hemodialysis. Department has established immunosuppressive drug monitoring for renal transplant patients and this facility is being provided free to all renal transplant patients. The department is providing nearly 80 patients hemodialysis per week at very low cost and free for patients below poverty lines. The department completed five funded research projects during this period. Department has also established a bio-repository of samples for potential research in renal sciences.

EDUCATION

Long-term training

The department runs DM Nephrology, a three-year degree course for post MD (Medicine) candidates, selected by AIIMS on the basis of merit by all India entrance examination. Five candidates were admitted to DM nephrology course during this period. Postgraduates from the department of internal medicine, geriatric medicine and emergency medicine are posted on rotational basis for a short period of one to two months. At present the department has three non-academic junior residents for 6 months each.

Short-term training

The department has provided short-term training for following:

1. Ms. Ashly Sebastian a medical student of final semester from UK had an elective training in the department of nephrology from 9th June 2014 to 2nd July 2014.
2. Senior residents enrolled for M.Ch Urology are rotated in the department on regular basis for their exposure in nephrology as part of their curriculum.
3. Residents from the division of Pediatric Nephrology also come for Nephro-pathology conference on regular basis.

CME/Workshops/Symposia/National & International Conference

Lectures delivered

S.K. Agarwal: 12 Dipankar M. Bhowmik: 10 Sandeep Mahajan: 6 Soumita Bagchi: 2

Oral Papers/Posters presented: 11

RESEARCH

Funded projects

Ongoing

1. Multicentric study to find out prevalence of chronic kidney disease in adults in urban Indian population. SK Agarwal, ICMR, 2012-16, Rs 90 lakhs.

2. Prospective monitoring of BK virus replication in the first year following renal transplantation in Indian patients. Soumita Bagchi, Intramural grant, 2104-15 (Extension applied), Rs 3.2 lakhs.

Completed

1. Effect of rifampicin as part of antitubercular therapy on antihypertensive drug requirement in patients of kidney disease. SK Agarwal, AIIMS, 2013-14, Rs 5.0 lakhs.

Departmental projects

Ongoing

1. Proteinuria in renal transplant recipient and histopathological correlation.
2. To assess the impact of rifampicin based anti-tubercular therapy on hypertension in patients with CKD.
3. Clinico-pathological correlation of HBV and HCV infection in patients on renal replacement therapy.
4. The profile and risk factors of serious infections in the first year after renal transplantation.
5. Assessment of risk factor, clinical profile and outcome of early versus late CMV infection in living related renal allograft recipient in Indian context.
6. Spectrum of acute kidney injury and its short and long-term outcomes in a tertiary care hospital in India.
7. Prospective study of urinary tract infection in renal allograft recipients.
8. To delineate the pattern of biopsy proven renal disease in a tertiary care hospital in India.
9. Impact of CsA and Tacrolimus on outcome of living related renal transplantation.
10. Relation of gestational age, birth weight and serial changes in body mass index from birth till adulthood with epidemiological biomarkers of chronic kidney disease in early middle age.
11. Assessment of arterial stiffness and autonomic function before and after renal transplantation.
12. Long term outcome of renal donors.
13. Evaluation of progression of carotid artery intimal medial thickness in chronic kidney disease patients not on dialysis and its correlation with endothelial dysfunction and biochemical parameters.
14. FGF-23 in peritoneal dialysis and its correlates.
15. To evaluate changes in CIMT in CKD-5D patients undergoing renal transplant.
16. The profile and risk factors of infections requiring hospitalisation in the first year after renal transplantation.
17. To delineate the pattern of biopsy proven renal disease in a tertiary care hospital in India.
18. Retrospective study for evaluating the Oxford classification of IgA nephropathy in the Indian population.
19. Retrospective study for evaluating the profile of biopsy proven kidney disease in elderly patients in India.

Completed

1. Effect of rifampicin as a part of antitubercular therapy on antihypertensive drug requirement in patients of renal disease.
2. Ambulatory blood pressure and clinic based blood pressure measurement in living kidney donors before and after nephrectomy- a short-term follow-up study.
3. Role of urinary neutrophil gelatinase associated lipocalin in diagnosing contrast induced nephropathy.
4. Prospective cohort study of the process and outcome of chronic kidney disease care in India.
5. To study the outcome of AV Fistula creation in CKD patients in a tertiary care hospital in north India: An observational cohort study.
6. Relation of gestational age, birth weight and serial changes in body mass index from birth till adulthood with epidemiological biomarkers of chronic kidney disease in early middle age.
7. Incidence of adverse drug reactions in HD patients.

Collaborative projects

Ongoing

1. Detection and genotyping of human Cytomegalovirus from neonates and renal transplant recipients (Microbiology).
2. 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).
3. To study the prevalence of UL 97 gene mutation in ganciclovir non-responders vis a vis responders in Indian renal transplant patients (Lab Medicine).
4. A prospective study comparing outcomes and quality of life after laparoscopic donor nephrectomy versus open donor nephrectomy (Surgery).
5. Study of population genetics of clinical strains of *Pneumocystis Jiroveci* and its clinico-epidemiological correlation (Microbiology).
6. Imaging and Intervention in Arteriovenous access for Hemodialysis (Radiology).
7. Genetic polymorphism and expression of toll-like receptors, mannose binding lectin and matrix metalloproteinase and its correlation with co-morbidity and infection in patients with chronic peritoneal dialysis (Microbiology).
8. The effect of rate of fluid hydration on early graft function during live related renal transplantation (Anesthesia).
9. Identification of biomarkers that predict response to treatment in lupus nephritis (Medicine).
10. Identification of prognostic marker in patients of multiple myeloma with immunoglobulin light chain induced renal failure (Medical Oncology).

Completed

1. Podocyte epithelial mesenchymal transition in chronic allograft dysfunction associated with proteinuria: A immunohistochemical and electron microscopy study with clinicopathological correlation (Pathology).
2. Clinical relevance of immune associated molecules in live related donor renal transplantation (Transplant Immunology and Immunogenetics).
3. Clinical relevance of MICA and NKG2D genetic and phenotypic diversity in renal transplantation (Transplant Immunology and Immunogenetics).
4. Study of nonalcoholic fatty liver disease and metabolic syndrome in patients with chronic kidney disease (Medicine).
5. Influence of CYP3A5 & MDR1 genetic polymorphisms on tacrolimus pharmacokinetics and clinical outcomes in renal transplant recipients (Pharmacology).

PUBLICATIONS

Journals: 10 Chapters in Books: 3

PATIENT CARE

In addition to providing general nephrology care for all nephrology related illnesses, department provide state of art renal replacement therapy; hemodialysis, CAPD and renal transplant at very low cost to any patient of end stage renal disease. Department provide swap transplant and ABO incompatible renal transplant. Department also provide immunosuppressive drug monitoring free of cost. During hemodialysis, ultrapure water is provided to machine so as to absolutely safe hemodialysis can be provided to patients.

S.No.	Area	Sub-heading	2014-15
1	HD Related	HD New Patients	993
		Emergency HD Patients	571
		Total HD	9669

		Plasmapheresis	198
		Femoral Vein catherisation	769
		Jugular / Subclavian catherisation	288
		AV Shunts	1
		AV Fistula	952
		Permacath Insertion	13
2	ICU Related	CRRT/SLED	32
3	Peritoneal Dialysis	Acute PD	56
		CAPD	20
4	Indoor Related	Kidney Biopsy	461
		Liver Biopsy	12
		Indoor regular admission	1398
		Indoor short admission	412
		Indoor Death / male	80/49
		Nephrology consultation	4361
		Ultrasound	489
5	Day Care Treatment	Pulse Methylprednisolone Tt	63
		IV iron Therapy	134
		IV Cyclophosphamide Therapy	46
6	Renal Transplant	Evaluation of LRRT	457
		Evaluation of Cadaver recipient	26
		Living RT done	139
		Cadaver RT done	5
7	Renal Lab related	Blood sampling	65979
		Biochemistry (Urea, Cr, Na, K)	65979
		Urine osmolality	354
		24 hr urine testing	10691
		Hemogram for RT Patients	7223
		CO2	13426
		Serum iron	8538
		TIBC	8515
		UIBC	8515
		T Saturation	8515
		Serum Ferritin	3833
		NGAL	186
		Tac Level	2262
		Vit-D & PTH	850
		Urine PO4	350

8	OPD Related	Renal clinic new patient	7791
		Renal clinic old patient	26652
		Renal clinic Total Patients	34443
		RT counseling clinic (3 days/wk)	1548
		RT new cases	142
		RT old cases	8914
		RT Clinic Total Patients	9056

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor SK Agarwal is member of Editorial Boards of Journal of Nephrology Research (ISSN 2410-0579) since 2015, journal “Clinical Queries: Nephrology”, Elsevier Publication, Gratis Journal of Diabetes and Cardiovascular Diseases since 2014, and section editor for Chronic Kidney Disease. He is permanent Member of the Global Advisory Board of the Global Academy of Medical Sciences since 2015, member Scientific Advisory Board for Mediworld Innovative Healthcare Solutions, member of Asian Council of Science Editors (ACSE), member of Expert group for studying the impact of Bhopal Gas on development of chronic kidney disease in Bhopal, Core committee member for National List of Essential Medicine revision committee, 2014, Elected Council member of Indian society of organ transplantation for 2015-2017 and Elected Council member of Indian Society of Nephrology for 2015-2018. He delivered Nizam Institute of Medical Sciences Nephrology Oration 2015. He has been invited to be advisor of International Journal of Pediatric Nephrology Urology and requested to be reviewer for “Health Education Material for Classes III to X”: 7th Aug, 2014” made under aegis of NIHFW, MOHFW, GOI, New Delhi. He is also Chief Advisor for National Organ and Tissue Transplant Organisation website and registry, Government of India.

Professor Dipankar M Bhowmik is Fellow of Indian Society of Nephrology (FISN) and Organizing Chairman of World Kidney Day event in PGIMER-RML Hospital on 12.03.2015.

Professor Sandeep Mahajan is Member of the National PD Guidelines committee and Indian CKD-MBD Guidelines committee. He has been nominated by the University Grants Commission to the Planning board of DY Patil Vidyapeeth Pune, nominated as member to the First Court of Central University of Gujarat by the Ministry Human Resource & Development. He is in the North Zonal Executive of the Peritoneal Dialysis Society of India and appointed as a country lead for India (Nephrology) by the New York University School of Medicine for the NIH/NHLBI funded ISCHEMIA-CKD trial.

VISITING SCIENTISTS

1. Dr Sanjiv Sethi, professor of department of laboratory medicine and pathology, Mayo Clinic, Minnesota, USA visited and gave a guest lecture on “C4d and its significance in proliferative glomerulonephritis” on 25th Nov 2014.
2. Dr Rupa Singh assistant professor of department of cardiology, Mayo Clinic, Minnesota, USA visited and gave a guest lecture on “Contrast Nephropathy and its management” on 25th Nov 2014.
3. A team of following scientist and dignitaries working in relation with soluble urokinase plasminogen activator receptor suPAR came to department of nephrology:
 - HelleFisker, Vice President Sales and Marketing, Virogates A/S Blokken 45, DK-3460 Birkerod, Denmark.
 - JesperEugen-Olsen, Chief Scientific Officer and Executive Director, Virogates A/S Blokken 45, DK 3460 Birkerod, Denmark.

Following three guest lectures were delivered by the guests:

- suPAR and clinical triage.
- suPAR in diabetes.
- suPAR in critical care and emergency medicine.

9.22 Nuclear Magnetic Resonance

Professor and Head

N.R. Jagannathan

Additional Professors

Rama Jayasundar

S. Senthil Kumaran

Assistant Professors

Uma Sharma

Virendra Kumar

Scientists

Sujeet Kumar Mewar

Pawan Kumar

HIGHLIGHTS

The Department procured and installed a state-of-the-art 3.0 T MRI system for clinical and research activities. Professor Jagannathan was elected President of the Indian Chapter of the International Society for Magnetic Resonance in Medicine (ISMRM), Vice-President of the Molecular Imaging Society of India (MISI) and Foreign Secretary, National Academy of Sciences (NASI), Allahabad.

EDUCATION

Postgraduate

The faculty and Scientists participated and delivered lectures for course titled “*Structural Biology and NMR Technology*” and “*Molecular Medicine*”, of M. Biotech programme of the Dept. of Biotechnology, AIIMS. The faculty participated in the theory and demonstration of the course on “Higher mental functions: Techniques (fMRI) used and methodologies”, for the Post-graduate training programme, Department of Physiology.

Short/Long Term Training

Ten persons from medical and science disciplines from various Institutes and Universities from India and B.Sc Radiography students, AIIMS, underwent training in MRI, fMRI and MRS techniques.

Continuing Medical Education

“Workshop on Advances in MR Spectroscopic Imaging”, was organized during March 21-22, 2015. One day training on MRI safety aspects was conducted in August 2014. The faculty participated in and delivered several lectures in continuing medical education programs, symposia, workshops and conferences during the year.

Lectures delivered

N.R. Jagannathan: 17

Rama Jayasundar: 9

S. Senthil Kumaran: 2

Uma Sharma: 1

Virendra Kumar: 1

Oral papers/posters presented: 22

RESEARCH

Funded projects

Ongoing

1. Funds for improvement of S&T infrastructure in Universities and Higher Educational Institutions (FIST), N. R. Jagannathan, Department of Science & Technology. (DST), 5 years, September 2014 - September 2019, 147.00 Lakhs.
2. Magnetic Resonance (MR) Multi-parametric Approach to the Study of Breast Cancer and its Correlation with Molecular Markers, N. R. Jagannathan, Department of Science & Technology (DST), 3 years, September 2013 to September, 2016, 53.7 Lakhs.

3. Metabonomics of Celiac Disease Using In-Vitro NMR Spectroscopy, Uma Sharma, Department of Biotechnology. (DBT), 3 years, Dec. 2011-June 2015, 33. 63 Lakhs.
4. Functional and neurobiological analysis in visually impaired subjects, S. Senthil Kumaran, **DST-Cognitive Science Initiative**, 3 years, 2013-2015, 34.02 Lakhs.
5. Spectroscopic analysis of medicinal plants from an ayurvedic perspective to aid in new standardization and quality assessment parameters, Rama Jayasundar, National Medicinal Plant Board (NMPB), Department of AYUSH, 4 years, 2011-2015, Rs. 96,90,000.
6. Spectroscopic analysis of medicinal plants for standardization and quality assessment, Rama Jayasundar, National Medicinal Plant Board (NMPB), Department of AYUSH, 3 years, 2014-2017, Rs. 48,96,000.
7. In vitro assessment of anti-HIV potential and phytometabolomics of select medicinal plants, Rama Jayasundar, Intramural Research Grant, AIIMS, New Delhi, 1 year, 2014-2015, Rs. 5,00,000.
8. Morphological, functional, Biochemical and Behavioral evaluation post-emf radiation, S. Senthil Kumaran, Department of Science & Technology (DST), 3 years, 2015-2017, Rs.49,50,000/-

Completed

1. Spectroscopic analysis of medicinal plants from an ayurvedic perspective to aid in new standardization and quality assessment parameters, Rama Jayasundar, National Medicinal Plant Board (NMPB), Department of AYUSH, 4 years, 2011-15 (completed in Jan 2015), Rs. 96,90,000.
2. In vitro assessment of anti-HIV potential and phytometabolomics of select medicinal plants, Rama Jayasundar, Intramural Research Grant, AIIMS, New Delhi, 1 year, 2014-15 (completed in March 2015), Rs. 5,00,000.
3. Correlation of metabonomics, enzyme activity, absorptive and secretory activity of duodenal enterocytes in celiac disease using NMR spectroscopy and immunohistochemistry, Uma Sharma, AIIMS, 1 year, Nov 2013 Nov 2014, 4.5 lacs.

Departmental projects

Ongoing

1. Magnetic Resonance (MR) Multi-parametric Approach to the Study of Breast Cancer and its Correlation with Molecular Markers.
2. Metabonomics study of celiac disease by NMR spectroscopy.
3. Role of various magnetic resonance imaging and spectroscopic methods in the evaluation of prostate cancer.
4. Spectroscopic analysis and pharmacological evaluation of select ayurvedic formulations.
5. Spectroscopic analysis of medicinal plants.
6. Spectroscopic analysis of select medicinal plants from an ayurvedic perspective.
7. Neurocognitive and visual pathway alteration associated with perception and semantic tasks in visually impaired subjects, using functional magnetic resonance imaging (fMRI).
8. Neuro-psychological and neurobiological basis of bilingual developmental dyslexia studied pre- and post therapy by cognitive behavior and functional magnetic resonance imaging (fMRI).
9. Neuroprotective study of lercanidipine and citalopram in experimental model of stroke in rats.
10. Neurochemical Correlates of Cognitive Functions in Euthymic Patients with Bipolar I Disorder.
11. Metabolomic profile of healthy neonates.
12. Evaluation of fumaric acid esters (FAEs) in experimental model of stroke in rats.
13. Neuroprotective study of nano carrier based Berberine chloride in middle cerebral artery occlusion model of transient focal cerebral ischemia in rats.
14. Role of MR spectroscopy in CNS involvement in HIV.
15. Fatty acid composition of abdominal subcutaneous adipose tissue compartments in NAFLD.
16. To study the pathogenesis of non-alcoholic fatty liver disease (NAFLD) in Indian population.

Completed

1. MR studies on rat models of multiple sclerosis (MS).
2. Body composition analysis using MR.
3. Molecular studies of the excitatory and inhibitory synapses of the auditory cortex analogue in developing chick (*Gallus domesticus*) exposed to prenatal chronic noise”.
4. Role of proton magnetic resonance spectroscopy in the management of soft tissue sarcomas.
5. Abnormalities in brain neurochemistry assessed by magnetic resonance spectroscopy in unmedicated obsessive compulsive disorder patients and changes after 12 weeks of escitalopram treatment.
6. Brain MR spectroscopy at 3 Tesla in obstructive sleep apnea.

Collaborative projects

Ongoing

1. Neuroimaging and cerebral metabolite changes in children undergoing treatment for acute lymphoblastic leukemia: a pilot study, Pediatrics, AIIMS.
2. Neuroprotective study of lercanidipine and citalopram in experimental model of stroke in rats, Pharmacology, AIIMS.
3. Molecular and biochemical characterization of hepatic glycogeneses Type I and III, Pediatrics, AIIMS.
4. Abnormalities in brain neurochemistry assessed by magnetic resonance spectroscopy in unmedicated obsessive compulsive disorder patients and changes after 12 weeks of escitalopram treatment, Psychiatry, AIIMS.
5. Neurochemical Correlates of Cognitive Functions in Euthymic Patients with Bipolar I Disorder, Psychiatry, AIIMS.
6. Metabolomic profile of healthy neonates, Pediatrics, AIIMS.
7. Evaluation of fumaric acid esters (FAEs) in experimental model of stroke in rats, Pharmacology, AIIMS.
8. Neuroprotective study of nano carrier based Berberine chloride in middle cerebral artery occlusion model of transient focal cerebral ischemia in rats, Pharmacology, AIIMS.
9. Spectroscopic analysis of medicinal plants, Dept. of Ocular Pharmacology and Pharmacy, AIIMS.
10. Spectroscopic analysis and pharmacological evaluation of select ayurvedic formulations, Dept. of Ocular Pharmacology and Pharmacy, Biochemistry, AIIMS.
11. In vitro assessment of anti-HIV potential and NMR spectroscopic phytometabolomics of select medicinal plants, Department of Biochemistry.
12. Scientific analysis of classical ayurvedic formulations: an exploratory study of mammalian cancer-derived cell lines and genetically induced *Drosophila* tumors in vivo, Department of Biological Sciences and Bioengineering, Indian Institute of Technology (IIT), Kanpur.
13. Development of biopolymer-superparamagnetic nanoparticle hybrid systems for MRI detection of liver and lymph node malignancies, Centre for Biomedical Engineering, IIT, Delhi.
14. NMR spectroscopic analysis of antidiarrhoeal aqueous extract of *Psidium guajava* leaves and their seasonal chemovariability, Foundation for Medical Research, Mumbai.
15. Study of Cognition and QOL in chronic intractable epilepsy using Functional magnetic resonance imaging (fMRI), Neurology, AIIMS, New Delhi.
16. Providing insights into the mechanism of modified Constraint Induced Movement Therapy in children with hemiparetic cerebral palsy – a Functional Magnetic Resonance Imaging based study, Pediatrics, AIIMS, New Delhi.
17. Neuroimaging and cerebral metabolite changes in children undergoing treatment for acute lymphoblastic leukemia: a pilot study, Paediatrics, AIIMS.
18. In vitro NMR spectroscopy of Breast milk in preeclampsia, Bharti Vidyapeeth Univ, Pune.

19. Engineered Multifunctional Nanomaterials for Multimodal Imaging of Retinoblastoma, Sastra Univ, Thanjavur.
20. NMR metabolomics study of plasma in diagnosis of oral cancer, IIT Kharagpur.
21. NMR metabolomics study of plasma in diagnosis of diabetic retinopathy, IIT Kharagpur.
22. NMR metabolomics study of plasma, urine and semen in bull fertility, GADVASU, Ludhiana, Punjab.
23. Prevalence of minimal hepatic encephalopathy in chronic liver disease in children: Brain magnetic resonance spectroscopy (MRS) study, SGPGI, Lucknow.

Completed

1. Multi-Functional Nanoparticles As Theranostic Agents For Targeted Delivery & Imaging In Pancreatic Cancer, SASTRA Univ, Thanjavur.
2. Molecular studies of the excitatory and inhibitory synapses of the auditory cortex analogue in developing chick (*Gallus domesticus*) exposed to prenatal chronic noise, Anatomy, AIIMS.
3. Role of proton magnetic resonance spectroscopy in the management of soft tissue sarcomas, IRCH.
4. In vitro NMR spectroscopy of Breast milk in preeclampsia, Bharti Vidyapeeth Univ, Pune.
5. Effect of dexamethasone on metabolic profile of human monocytic cell-line (THP1), Biotechnology, AIIMS.
6. Metabolic profile of serum samples of tuberculosis patients, contacts and control, Biotechnology, AIIMS.
7. Cue Induced Craving In Adolescent Inhalant Users: A functional magnetic resonance imaging (fMRI) study, Psychiatry. AIIMS, New Delhi.

PUBLICATIONS

Journals: 14 Abstracts: 2

PATIENT CARE

The department has three whole body MRI scanners (1.5 Tesla and 3.0 Tesla) for patient care and research. The department provides more than twelve hours per day of patient care MRI services. The number of patients scanned during the year were:

Clinical Diagnostic MRI Scan:	6281 patients
Research:	834 patients and subjects

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor N.R. Jagannathan was elected as Vice-President of the Molecular Imaging Society of India (MISI); elected as Foreign Secretary, National Academy of Sciences (NASI), Allahabad. He was made the Chairperson of the National Steering Committee (NSC) for the “Indigenous Magnetic Resonance Imaging (IMRI) – A National Mission”, Department of Electronics and Information Technology, Ministry of Communication and Information Technology, Government of India; Member, Task Force on Cognitive Science Research Initiative (CSRI), Department of Science and Technology (DST), Government of India; Member, Fund for Improvement of S&T Infrastructure in Higher Educational Institutions (FIST), PG Colleges, Department of Science and Technology (DST), Government of India; Member, Committee on “Safety guidelines for static magnetic fields and Extremely Low Frequency (ELF) magnetic fields exposure on humans.” National Health Systems Resource Center, Ministry of Health & Family Welfare, Government of India; Member, Working Group on Medical Electronics & Health Informatics, Ministry of Communications & Information Technology, Government of India. He was the recipient of the prestigious Drs. Kunti & Om Prakash Oration Award for significant contribution in the field of biomedical sciences, Indian Council of Medical Research (ICMR), Government of India. He also received the AIIMS Excellence Award (2nd prize) for best paper published in 2012-13. Past President of Asian Biophysics Association (ABA); First Indian to give an invited talk at the Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA; Member, Program Committee, 2014 World Molecular Imaging Congress (WMIC), Seoul, South Korea; Vice-President, Molecular Imaging Society of India (MISI); Member of the Young Investigators Awards (YIA) Committee, International Society for Magnetic Resonance in Medicine (ISMRM), USA; Member of the Inspection Committee for University of Mysore and Bangalore University under the Promotion of University Research and Scientific Excellence (PURSE) program of the Department of Science and Technology, Government

of India; adjudged as a “Distinguished Reviewer” of ‘J. Magnetic Resonance Imaging’ (Wiley). Jagannathan 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 & Imaging”(IOC Press, Netherlands); (g) “Biophysical Reviews” (Springer). Distinguished Reviewer of Journal of Magnetic Resonance Imaging (Wiley International), 2012. He is the elected member of the executive council of the International Union of Pure and Applied Biophysics (IUPAB) (2008-2014). He continues to be a member of the steering committee of Asian Biophysics Association (ABA); council member of the International Conference on Magnetic Resonance in Biological Systems (ICMRBS), USA; member of the Program Advisory Committee, Section for Biochemistry, Biophysics and Molecular Biology, Department of Science and Technology, Government of India; member of the Steering Committee of the Sophisticated Instruments Facilities of Department of Science and Technology, Government of India; member of the FIST Committee of the Department of Science and Technology, Government of India; member of the PURSE Committee of the Department of Science and Technology, Government of India; coordinator of the expert panel on “Biomedical Devices and Bioengineering”, Life Sciences Research Board, DRDO; member of the INSA committee for International Union of Pure and Applied Biophysics (IUPAB); member of the Management Advisory Committee of the Sophisticated Instruments Facility, CDRI, Lucknow; member of the Management Advisory Committee of the Sophisticated Instruments Facility, Indian Institute of Science, Bangalore; Member, Scientific Advisory Committee, Biosciences and Bioengineering Group, IIT Indore; Member, Research Council (RC), Institute for Nuclear Medicine & Allied Sciences, INMAS, DRDO; Member, Science Advisory Council, National Brain Research center (NBRC), Manesar, Haryana. He is the past President of Indian Biophysical Society (IBS). He is a 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).

Dr Rama Jayasundar was invited by Ministry of Human Resource and Development (MHRD), Govt. of India as a special invitee to participate in the Brainstorming meeting on Scientific approaches to holistic perspectives on life sciences, standardization and integration in modern educational interdisciplinary curricula in Institutes of Science and Engineering; E.K. Zavoisky Stipend, 2014 awarded by International Society for Magnetic Resonance in Medicine, USA; Invited as a keynote speaker at the 6th World Ayurveda Congress, Department of AYUSH, Ministry of Health & Family Welfare, Govt. of India to give two lectures.

Dr S. S. Kumaran was Reviewer for the journals (1) Contrast Media and Molecular Imaging, (2) Journal of Parkinson’s Disease, (3) Journal of Medical Physics, (4) Journal of BioSciences. Reviewer of projects for the funding agencies: (1) Department of Science and Technology (DST), (2) Council of Scientific and Industrial Research (CSIR), (3) Indo-US Science and Technology Forum (IUSSTF).

Dr Uma Sharma won Dr. R.M. Kasliwal Award On paper entitled “Similarity in the metabolic profile in macroscopically involved and un-involved colonic mucosa in patients with inflammatory bowel disease: as in vitro proton (¹H) MR spectroscopy study”, lecture presented at NAMSCON 2014, 54th Annual Conference of the National Academy of Medical Sciences on 19th Oct. 2014 at All India Institute of Medical Sciences Rishikesh; Reviewer for International Willey Journals, NMR Biomedicine and J Magn. Reson. Imaging; Elected Executive Council Member in Indian Biophysical Society.

Dr Virendra Kumar was Reviewer for PLOS ONE, PLOS, CA, USA.

9.23 Nuclear Medicine

Professor and Head

C.S. Bal

Professor

Rakesh Kumar

Additional Professor

Chetan D. Patel (CNC)

Assistant Professor

Madhavi Tripathi
Nishikant A. Damle

Anil K. Pandey (Medical Physics)
Shamim A. Shamim

HIGHLIGHTS

The department of Nuclear Medicine has 2 PET/CT scanners, 3 SPECT/CT, 2 single head and one dual head gamma camera, an uptake probe with well counter and well equipped radiopharmacy laboratories. The department also started a daily OPD for radionuclide therapy. The department is the largest center for radionuclide therapy in the country today and is competing with European countries like Germany/Italy in this field. The department has started new therapy procedures like ¹⁷⁷-Lu PSMA for prostate cancer. The department undertook procedural reforms to reduce the waiting time for investigations from the previous waiting period of 3-4 months. As a result, there is no waiting period for some investigations, most tests are done within 2-3 days of request, and MDP bone scans and PET scans are done within 15 days of request. The department also now provides typed reports for conducted tests within 24 hours. These changes have led to a phenomenal increase in the number of scans done: currently the department is doing 30-40 PET/CT scans per day and also 6-7 tracer-based PET scans (PSMA PET, Choline PET, Bisphosphonate PET), unlike most centres that only do FDG PET scan. The Nuclear Cardiology unit performs myocardial perfusion study, radionuclide ventriculography, cardiac PET imaging with N-13 NH₃ perfusion and F-18 FDG glucose metabolic studies. All investigations and radionuclide therapy procedures are done at very nominal charges.

EDUCATION

Currently the department has 16 MD students, 8 MSc students, 4 PhD students and is actively involved in daily academic activities as well as research work.

Lectures delivered at CMEs, National and International conferences

C.S. Bal: 7

Rakesh Kumar: 6

Chetan D. Patel: 3

Anil K. Pandey: 1

Madhavi Tripathi: 4

Nishikant A. Damle: 1

Oral paper/posters presented: 33

RESEARCH

Funded projects

Ongoing

1. To develop ⁶⁸Ga-labelled rituximab for the diagnosis of B-cell non hodgkins lymphoma (NHL) patients, C S Bal, IAEA Vienna, 6 years, 2010 -2015, Rs. 26 lakhs.
2. Standardization of ¹⁸F-FDG PET/CT interpretation criteria for early response evaluation in paediatric lymphoma, C S Bal, IAEA Vienna, 3 years, 2014- 2017, Rs. 13 lakhs.
3. Gallium labelled PSA PET/CT in the evaluation of prostate cancer patients, C S Bal, AIIMS Intramural, 2 yrs, 2014- 2016, Rs. 4 lakhs.

4. Value of intraventricular synchronism assessment by Gated SPECT myocardial perfusion imaging (MPI) in the management of heart failure patients submitted to cardiac resynchronization therapy. Chetan, D. Patel, IAEA Vienna, 3 years, 2013-2016, Rs. 5 lakhs.
5. Study of the changes in sleep architecture, melatonin levels and metabolic abnormalities on F-18 Fluorodeoxyglucose Positron Emission Tomography (FDG-PET) in persons with mild cognitive impairment (MCI) progressing to Alzheimer's type dementia (AD), Madhavi Tripathi, DST, 3 years, 2013-2016, RS. 54 lakhs.
6. Biological dosimetry of patients undergoing diagnostic PET/CT scan using gamma-H2AX assay, Anil K, Pandey, AIIMS, 2 years, 2013-2015, 5 lakhs.

Completed

1. Use of sentinel lymph node detection in breast and head and neck cancers, C S Bal, IAEA Vienna, 6 years, 2009–2014, 25 lakhs.
2. Re-establishment of normal reference range of uptake values in the era of universal salt iodination, C S Bal, AIIMS Intramural, 2 years, 2011-2013, Rs. 8 lakhs.
3. Early evaluation of treatment response of neo-adjuvant chemotherapy in locally advanced breast cancer patients using tumor burden estimation by PET-CT and correlation with CD 34 and VEGF expression, Rakesh Kumar, ICMR, 3 years, 2010-2013, Rs. 25 lakhs.

Departmental projects

Ongoing

1. Characterization of inferior wall defects on myocardial perfusion imaging using SIMIND monte carlo code and its clinical validation
2. Comparison of ⁶⁸Ga-PSMA PET/CT with conventional imaging modalities for staging high risk prostate cancer
3. Comparison of myocardial perfusion abnormalities detected by stress adenosine Tc99m MIBI
4. Dosimetric study in children and young adults with differentiated thyroid cancer undergoing radioiodine (¹³¹I Na) therapy
5. Early evaluation of treatment response of chemotherapy in non-small cell lung cancer (NSLC) by PET/CT
6. Liver segmentation on PET/CT Images using fuzzy C means clustering
7. Myocardial perfusion SPECT and coronary flow reserve on adenosine stress echocardiography for the screening of patients after arterial switch operation
8. Relationship between left ventricular dyssynchrony, myocardial perfusion abnormalities and systolic function assessed on Tc99m-MIBI myocardial perfusion SPECT in comparison with quality of life and functional status of heart failure patients
9. Role of ¹¹C-methionine PET/CT in the localization of hyperfunctioning parathyroid tissue in patients with primary hyperparathyroidism
10. Role of ¹⁸F-fluorocholine PET/CT in the localization of hyperfunctioning parathyroid tissue in patients with primary hyperparathyroidism
11. Role of Lu-177 radiosynovectomy in chronic knee arthritis patients
12. Role of texture analysis using F-18 FDG PET/CT in assessment of response to neo-adjuvant chemo/hormonal therapy in locally advanced cancer
13. Tc-99m labeled WBC in the evaluation of pyrexia of unknown origin (PUO)
14. To detect perfusion defects in right ventricle in Eisenmenger syndrome on Tc99m-MIBI myocardial perfusion imaging.

Completed

1. Assessment of cardiac dyssynchrony in patients with non-ischemic dilated cardiomyopathy undergoing cardiac resynchronization therapy using Tc-99m MIBI myocardial perfusion imaging: comparison with radionuclide ventriculography
2. Feasibility of F-18 FDG in diagnosis of infective endocarditis
3. Optimization of image acquisition and reconstruction parameters of I-131-MIBG
4. Optimization of the PET/CT protocol to decrease the total radiation dose to the pediatric population without compromising the diagnostic quality of fused PET/CT
5. SPECT/CT using SIMIND monte carlo simulation software

Collaborative projects

Ongoing

1. Role of SPECT-MPI and coronary CT angiography in the assessment of patients at intermediate risk of coronary events (Cardiology)
2. Role of stem cell after late opening of infarct related artery (COAT trial) (Cardiology, Stem Cell Facility)
3. International study of comparative health effectiveness with medical and invasive approaches (ISCHEMIA TRIAL) (Cardiology)
4. Manual thrombus aspiration with fractional flow reserve guided stenting during primary angioplasty (Cardiology)
5. Prevalence of symptomatic and asymptomatic coronary artery disease in patients with ischemic stroke and TIA (Neurology, Cardiology)
6. Labeling of stem cells with Technetium-99m - hexamethylene propylene amine oxine (Tc99m HMPAO) and to detect the homing of stem cells in the myocardium after intra- coronary injection (Cardiology, Stem Cell Facility)

PUBLICATIONS

Journals: 101 Chapters in Books: 5

PATIENT CARE

Radionuclide Investigations

Investigation	Number	Investigation	Number
Thyroid Scan	381	MIBG Scan (Therapeutic)	10
WB Scanning (Diagnosis)	831	PET/CT Scan (FDG)	5429
WB Scanning (Therapy)	715	18F Fluoride	15
Bone Scan	2860	PET/CT Scan (NH ₄) ⁺	24
Renal Dynamic Scan	3448	Ga ⁶⁸ DOTA NOC	527
Renal Cortical Scan	1093	SPECT/CT (I-131)	76
DRCG	218	SPECT/CT (I-131 MIBG)	33
HIDA scan	325	SPECT/CT	157
GET (Gastric Emptying Time)	72	Meckle's Scan	41
G.I. Bleed	19	99mTc-TRODAT Scan	207
Gastro Esophageal Reflux	467	Methionine scan	33
Brain SPECT	467	Lu-177 DOTATATE	45
99mTc Parathyroid Scan	112	Myocardial Perfusion Infection	1483
Lymphoscintigraphy	117	MUGA	808
Sentinel Lymphnode	55	Cardiac PET	45
MIBG Scan (Diagnostic)	264	Misc. & V/Q	50

Radionuclide Therapy

¹³¹ I- Ca Thyroid	638	¹³¹ I-Hyperthyroidism	321
¹⁷⁷ Lu-EDTMP Bone Pain Palliation	8	¹⁷⁷ Lu-DOTATATE PRRT	57
¹⁷⁷ Lu-PSMA	5	¹⁸⁸ Re-Radiosynevectomy	32

Awards

Dr Madhavi Tripathi was awarded the fellowship of the Asian Nuclear Medicine Board 2014.

9.24 Obstetrics and Gynaecology

Professor and Head

Alka Kriplani

Professors

Sunesh Kumar
K.K. Roy

Dipika Deka
Neena Malhotra
Nutan Agarwal

Neerja Bhatla
Vatsla Dadhwal

Additional Professors

J. B. Sharma

Neeta Singh

Assistant Professors

Aparna Sharma
P. Vanamail
Rajesh Kumari

Garima Kachhawa
Vidushi Kulshrestha
Jyoti Meena

Reeta Mahey
Seema Singhal

Scientists

Rohini Sehgal (Medical)

Abanish Chandra Tiwari

HIGHLIGHTS

The Department of Obstetrics & Gynaecology organizes monthly meetings for postgraduate training since 2001. The training component includes clinical and surgical skills, development of protocols and guidelines, case presentations and discussions. Invited faculties from various academic and teaching institutions of Delhi as well as international faculty contribute towards training of postgraduates.

- Fourth National conference of Gynae Endocrinology was organized during on 25-27 April 2014 under Gynae Endocrine Society of India.
- International Conference on Reproduction, Fertility & Surrogacy, Organized by International Fertility Centre & Dept Obst Gynae under the aegis of Gynaecological Endocrine Society of India (GESI) was organized during 23-25 May 2014. In both the conferences more than 1000 delegates and about 400 papers were presented.

The Post Partum Programme (PPP) is a mandatory centre hospital based approach to family welfare programme by providing a package of RCH and family welfare services in the vicinity of the hospital as well as in the field practice areas. It is run as an integrated multidisciplinary exercise where the department of Obstetrics and Gynaecology coordinates with departments of Pediatrics, Community Medicine, Surgery and Anaesthesiology.

EDUCATION

Undergraduate, Postgraduate, Paramedical

Delhi Post Graduate Medical Education Forum (Department of Obstetrics and Gynaecology) organizes monthly meetings for postgraduate training since 2001. These are to supplement training of postgraduates in clinical and surgical skills, problem oriented approach to Obstetrics and Gynaecology, protocols and guidelines, case presentations and discussions. Invited faculties from various academic and teaching institutions of Delhi as well as international faculty contribute towards training of postgraduates.

Short Term Training

The Department offers short term training in various super specialty subjects like 'Gynae Endoscopic Surgery', 'High Risk Pregnancy', 'Gynae Oncology', 'Ultrasonography' and 'Infertility'. Following Doctors were trained in different disciplines. A total of 16 students received training this year in these super specialty subjects

CMEs/Workshops/Symposia/National and International Conferences organized by the Department

1. 4th National Conference of Gynae Endocrinology (GESICON) 2014, Organized by Gynae Endocrine Society of India, and Dept Ob Gyn, AIIMS under aegis of AOGD, 25-4-2014 to 27-4-2014, New Delhi.
2. Conducted workshop on Menopause and Its Management on 25TH April, 2014 at AIIMS, 25-4-2014, AIIMS.
3. Conducted workshop on Obesity at AIIMS on 25th April, 2014 in collaboration with Faculty from USA, 25-4-2014, AIIMS.
4. International Conference on Reproduction, Fertility & Surrogacy, Organized by International Fertility Centre & Dept Obst Gynae under the aegis of Gynaecological Endocrine Society of India (GESI), 23-5-2014 to 25-5-2014, AIIMS, New Delhi.
5. Annual Conference of Indian Association of Gynaecological Endoscopists, Organized by IAGE & Dept of Obs & Gynae, AIIMS, Delhi, in collaboration with GESI (Gynae Endocrine Society of India), 29-8-2014 to 31-8-2014, New Delhi.
6. Operative Endoscopy in infertility 22nd WHI Training course in MAS, Organised by Dept of Obst & Gynae, AIIMS, 5-1-2015, New Delhi.
7. Evolution in TLH 22nd WHI Training course in MAS, Organised by Dept of Obst & Gynae, AIIMS, 8-1-2015, New Delhi.
8. Urogynaecology Workshop, organized by Dept of Obst & Gynae, AIIMS, Delhi, under aegis of Urogynae Committee of AOGD, Urogynae committee of FOGSI, DGES, 14-3-2015, New Delhi.

Lectures delivered

Alka Kriplani: 54

Neerja Bhatla: 30

Vatsala Dadhwal: 6

Aparna Sharma: 13

Vidushi Kulshrestha: 2

Sunesh Kumar: 4

Kallol Kumar Roy: 11

J.B. Sharma: 16

Garima Kachhawa: 9

Seema Singhal: 1

Dipika Deka: 19

Neena Malhotra: 15

Neeta Singh: 3

Reeta Mahey: 5

Rajesh Kumari: 2

Oral papers/posters presented: 76

2 awarded best paper presentation

RESEARCH

Funded projects

Ongoing

1. WHO-AIIMS study for the development of growth standards from fetal life to childhood: The Fetal Component, Alka Kriplani, WHO, 3years, 2013-2015, 23,67,300/-
2. Evaluation of a progesterone vaginal ring as a new contraceptive option in India (I-724), Alka Kriplani, ICMR, 3 years, 2012-2015, 8,11.946/-
3. Use of Magnivisualizer as a tool for detecting pre-malignant and early malignant lesions of cervix, Alka Kriplani, ICMR, 2 years, 2015-2016, NIL (Instrument provided).
4. Isolation and Characterization of Mesenchymal Stem Cells derived from Amniotic fluid and Wharton jelly, Dipika Deka, AIIMS, 1 yr, 2014- 2015, 5lakhs.
5. To study the role of Coenzyme Q₁₀ on oxidative stress markers and proinflammatory markers and its implications on anti-phospholipid mediated/idiopathic Recurrent Miscarriage, Aparna Sharma, AIIMS, 1 Yr, 2014-2015, 5lakhs.
6. A Randomized Double Blind Controlled Trial to Investigate the Effects of Vitamin D supplementation on maternal and new-born baby's vitamin D status in Asian-Indian Subjects. Garima Kachhawa, ICMR Extra mural Project Grant 2013, 3 years, 2013-2016, Rs 40 Lakhs.
7. To evaluate the role of rapid diagnostic modalities (Gene Xpert and Urinary Liorabinomanan), Reeta Mahey, Institute, 2 yrs, January 2015, Rs 5 Lakhs.
8. Effectiveness and safety of 2 vs 3 doses of HPV vaccine in preventing cervical cancer: An Indian Multi centre randomized trial, Dr. Neerja Bhatla, WHO-IARC, 6 years, 2009-15, US \$ 65,000 (29,25,000).

9. A Phase III clinical trial to demonstrate the immunogenicity, tolerability, and manufacturing consistency of V503 (amultivalent HPV L1 Virus-Like Particle [VLP] vaccine) in preadolescents and adolescents (9-15 year olds), with a comparison to young women (16-26 year olds), Neerja Bhatla, MSD Pharmaceuticals Pvt. Ltd, 6 years, 2010-16, Rs.8,80,000/-
1. Phase II placebo-controlled study of VGX-3100, (HPV16 E6/E7, HPV18 E6/E7 DNA Vaccine) delivered IM followed by electroporation (EP) with CELLECTRAÒ-5P for the treatment of biopsy-proven CIN 2/3 or CIN 3 with documented HPV-16 or 18, Neerja Bhatla, Max Neeman, 2 years, 2013-15, Rs.17,00,000/-
2. Prevalence, Genotype Distribution of HPV in Cervical Infection, and its Attribution to Cervical Intraepithelial Neoplasia and Cervical Cancer in Indian Women, Neerja Bhatla, Shantha Biotechnics Ltd, 2 years, 2013-15, Rs. 22,88,000/-
3. A comparison of advanced molecular method for quantitative detection of HR-HPV oncogene over-expression with histopathology proven CIN2+ as a clinical end-point as an emerging novel biomarker for cervical cancer screening, Neerja Bhatla, Cure Health Diagnostics, 2 years, 2014-16, Rs. 39,00,000/-
4. The expression of Human Epididymis protein 4 (HE4) in ovarian carcinoma and correlation with prognosis, Neerja Bhatla, ICMR, 2 years, 2014-16, Rs. 3,51,750/-
5. A Randomized open label comparative study of safety & efficacy of Metformin and subcutaneous insulin in Asian women with Gestational Diabetes, Neeta Singh, ICMR, 3 years, Oct 2011, Rs. 30 lacs.
6. Impact of local endometrial trauma on the outcome of IVF in women with previous failed implantation: Exploring the Genome wide transcriptomic basis, Neeta Singh, AIIMS, 2 years, September 2013, Rs. 10 lacs.
7. Depressive and anxiety disorders in the postpartum period: prevalence, psycho-social correlates and effect on mother-infant bonding, Vatsla Dadhwal, Indian Council of Medical research, 3 years, 2014-2016, RS. 46,28,693/-
8. Amniotic fluid oxidative status and functional genomic analysis in normal fetuses and fetuses with congenital anomalies, Vatsla Dadhwal, AIIMS, 2 years, 2013-2014, Rs.100,000/-
9. Effects of Non- Ionizing Electro Magnetic Field (EMF) on Human Health, JB Sharma, ICMR, 5 years, 2009-Till date, Rs.47 Lakhs.
10. Efficacy and Safety of Fixed dose Combination of Drotaverine Hydrochloride (80 Mg) and Mefenamic Acid (250mg) Versus Mefenamic Acid (250mg) alone In the Treatment of Primary Dysmenorrhea: Double-Blind, Randomized comparative study, JB Sharma, Wallter Bushnel, One Year, 2014-Till date, Rs.7 Lakhs.
11. Evaluation of molecular methods (PCR immunohistochemistry) against conventional methods (histopathology, culture, afb staining in endometrial samples) and laparoscopy in detection of genital tuberculosis in infertile women, Neena Malhotra, ICMR, 3 years, Dec 2012 to Nov 2015, Rs. 48,45,425/-
12. Effects of oral probiotic supplementation during pregnancy and lactation in modulating immune response breast milk, fetus and neonate A randomized double blind, controlled trial, Prof. Neena Malhotra, Industry Funded CD Pharma India Pvt.Ltd, 2 years, Dec 2014 to Nov 2016, Rs. 33,85,800/-
13. Cytokines and Pentraxin 3 in women with unexplained Recurrent Pregnancy loss, Nutan Agarwal, AIIMS, 2 years, Dec 2013 to Nov 2015, Rs. 5,00,000/-

Completed

1. Evaluation of Vascular Endothelial function by physiological and biochemical markers in women with preeclampsia versus normal healthy pregnancies, Garima Kachhawa, Intra mural Research Grant, 2, 2012-2014, Rs 5 Lakhs.
2. Evaluation of Curcumin in the management of advanced cancer cervix, Sunesh Kumar, DBT, 5 yrs 7 mths, 2007-2013, Rs. 48 Lakhs.
3. Early detection of cervical neoplasia by visual screening and Hybrid Capture testing by self and physician collection methodology – A community based study in rural area, Neerja Bhatla, Qiagen India, 4 years, 2010-14, Rs. 5,46,327/-
4. CORONIS: International Study of Caesarean Section Surgical Technique: the follow-up study, JB Sharma, NPEU Oxford University, 7 years, 2007 to 2014, Rs. 120 Lakhs.

5. A Study on Treatment of Genital Tuberculosis: A Randomized Controlled Trial of Either discontinuation at 6 mths or Continuation at 9 mths after Initial Response to 6 month RNTCP Category I Treatment, JB Sharma, Central TB Division, MOHFW, India, 5 years, 2009 to 2015, Rs. 48 Lakhs.

Departmental projects

Ongoing

1. To assay the role of semen ROS levels and sperm DNA damage levels in unexplained foetal congenital anomalies.
2. Biochemical Alterations in Anemic Fetuses of Rh-isoimmunized mother.
3. Isolation of differentiation of mesenchymal stem cell derived from amniotic fluid.
4. Correlation of Doppler velocimetry in various blood vessels with fetal anaemia in women with Rh-isoimmunized pregnancy.
5. Effect of Intrauterine Perfusion of Granulocyte Colony Stimulating Factor on Endometrial Thickness, Implantation Rate and Pregnancy Rate in Women Undergoing In Vitro Fertilization: A Double Blinded Placebo Controlled Randomized Controlled Trial.
6. The expression of human epididymis protein 4 (HE4) in ovarian carcinoma and correlation with prognosis.
7. Screening for congenital thrombophilia in patients presenting with unexplained infertility and comparison with normal population and cases with recurrent pregnancy loss.
8. To compare the efficacy of intramyometrial vasopressin plus rectal misoprostol with intramyometrial vasopressin alone to decrease blood loss during laparoscopic myomectomy : A randomized clinical trial.
9. To evaluate the pregnancy rate after endometrial scratching in couples with unexplained infertility in ovulation induction and IUI cycles, 2014.
10. To Study the Role of 3D Endometrial Volume and 2D Endometrial Thickness in IVF Patients.
11. Prospective Randomized Comparative Study Using Thunderbeat Technology; Harmonic Ace' & 'Ligasure Device' During Total Laparoscopic Hysterectomy for the Treatment of Benign Diseases of the Uterus-A Pilot Study.
12. Prevalence and Prognostic significance of Herzner in Ca Endometrium.
13. A Pilot Study Comparing 5mm Telescope and 2.9mm Telescope in Chronic Pelvic Pain
14. Vit-D Level in Patients with SUI and Role of its Supplementation.
15. A study of Prevalence of Human Papillomavirus infection and cervical abnormalities in Human Immunodeficiency Virus infected women.
16. The expression of Human Epididymis protein 4 (HE4) in ovarian carcinoma and correlation with prognosis.
17. Comparative evaluation of HPV E6/E7 mRNA assay & High Risk HPV DNA Test for the diagnosis of High grade Cervical Intraepithelial Neoplasia (CIN2+).
18. Study of surgical site infections after caesarean section.
19. A prospective study of mifepristone followed by misoprostol or ethacridine lactate and oxytocin for second trimester abortions.
20. A comparative study of burch colposuspension and transobturator vaginal tape procedure in women with stress urinary incontinence.
21. A Randomized Controlled Trial comparing Manual and Automated Methods of Follicle Monitoring in Women Undergoing In-Vitro-Fertilization.
22. Pregnancy outcome after bed rest versus early ambulation following embryo transfer during IVF cycles –a randomized controlled study.
23. A Randomized Controlled Trial comparing Follicular flushing and direct aspiration in poor responders undergoing In-Vitro-Fertilization (IVF).

Completed

1. Randomized clinical trial to assess the efficacy of myoinositol versus metformin on clinical, metabolic and hormonal parameters of polycystic ovary syndrome.
2. Glucose Intolerance among subjects with PCOS: A Two year follow up study.
3. Comparison of strength of association of Reid's colposcopic index versus Swede's score with histology in colposcopic guided biopsy.
4. To study ovarian reserve after laparoscopic endometriotic cystectomy and to correlate the effect of post cystectomy ovarian suppression with fertility outcome : A randomized controlled trial.
5. Evaluation of vascular endothelial function in early pregnancy by biophysical and biochemical markers and correlate with development of preeclampsia in later pregnancy.
6. To study the levels of cytokines and pentraxin 3 levels in women with unexplained recurrent pregnancy loss and the effect of oral micronized progesterone therapy on cytokine and pentraxin 3 levels and its relation to the pregnancy outcome.
7. A study of prevalence of human papilloma virus infection and cervical abnormalities in human immunodeficiency virus infected women.
8. Interventional study on the effect of anti tubercular treatment on Endometrium, Fallopian Tubes and Ovaries in Genital Tuberculosis.
9. Prospective Randomized comparative study of Hysteroscopic Myomectomy using Unipolar system versus Bipolar System.
10. To Evaluate the role of Endometrial Scratching in the outcome of In Vitro Fertilization Cycles (IVF-ET).
11. Role of MRI in evaluation of Vault prolapse and its relationships with POPQ classification and operative finding and operative finding.
12. A Comparative Study of the Treatment of Gestational Diabetes Mellitus by Metformin Vs Insulin : A Randomized Control Trial.
13. Expression of Biomarkers in Endometrial Hyperplasia and Carcinoma.
14. Evaluation of Enterleukin-6 and VEGF Levels in Ascitic Fluid of Patients with Epithelial Ovarian Cancer.
15. Assessment of Lower Segment Cesarean Scar by Transvaginal Ultrasound and MRI.
16. Role of MRI in Evaluation and Quantification of Vault Prolapse in Women with Previous Hysterectomy.
17. Study of Vitamin D Deficiency in Women with Singleton and Twin Pregnancy and its Association with Vitamin D in Cord Blood.
18. Amniotic Fluid Oxidative Status In Normal Fetuses and Fetuses with Congenital Anomalies.
19. The role of GnRH analogues in improving outcome in women undergoing super-ovulation and intra uterine insemination after surgical correction of minimal to mild endometriosis a randomized control trial.
20. Ovarian reserve and assisted reproductive technique outcome after laparoscopic proximal tubal occlusion or salpingectomy in women with hydrosalpinx undergoing in-vitro fertilization: a randomized controlled trial.

Collaborative projects

Ongoing

1. Role of human umbilical cord blood stem cells and neural stem cells in neuronal regeneration and functional restoration: A comparative study in male adult rats with acute spinal cord injuries, Sumit Sinha (2011- Oct. 2014) Associate Professor, Neurosurgery. Funded by – DBT, 30 lac, 20 thousand.
2. Prenatal Screening Initiative by Dried Blood Spots: Role for Triaging and Resource Utilization, Sangeeta Gupta (MAMC), Professor, Deptt. O & G (2014 -).
3. Identification of Human Chromosome 21-Derived miRNA in Maternal Circulation for Non Invasive Prenatal Diagnosis of Down Syndrome, Madhulika Kabra, Addl. Prof. Pediatrics, Chief-Genetic Unit, AIIMS (ongoing 2015), Funded by DBT.

4. Establishing Guidelines for Fetal Counseling for Surgical Congenital Anomalies, Shilpa Sharma (Project Investigator) (June 2014-2017), Assistant Professor, Deptt. of Pediatric Surgery, AIIMS. Funded by DBT.
5. Evaluation of vascular functions, baroreflex sensitivity and biochemical factors to investigate Pre eclampsia, Department of Physiology.
6. Molecular Basis of Estrogenism in Endometriosis, Physiology Dept AIIMS.
7. Randomized Open Level Comparative Study of Safety and Efficiency of Metformin and Subcutaneous Insulin in Asian Indian Women with Gestational Diabetes, ICMR.
8. Exploring the Role of Proteomic Signature in Saliva: A Step Towards Non Invasive Diagnostic Tool for Ovarian Cancer, ICMR.
9. Cross-sectional study of cord blood immune markers in term appropriate for gestational age and small for gestation age neonates, Pediatrics.
10. Optimisation of HPV detection by Hybrid Capture-II for use on DNA extracted from cytology smears: A method suitable for developing countries, Pathology.
11. To evaluate the effect of Metformin versus Placebo as an Add-on Therapy in patients with recurrent epithelial ovarian cancer receiving chemotherapy: A double blind randomized controlled clinical trial, Medical Oncology IRCH.
12. Patterns of care for Cervical Cancers in India, Radio Oncology IRCH.
13. Maternal, perinatal and neonatal sciences, Pediatrics.
14. A pragmatic lifestyle intervention programme for the prevention of type 2 diabetes mellitus among South Asian women with gestational diabetes mellitus, Endocrinology & Metabolism.
15. A population based prospective cohort study to unravel the causes of stroke and cognitive decline: A cross cultural perspective (Indo-Netherlands Project), Neurology.
16. Study on the effect of hydrogen sulfide on migration and invasion potential of trophoblast cells, Anatomy.
17. A lifestyle intervention program for the prevention of type 2 diabetes mellitus among South Asian women with gestational diabetes mellitus. India, Bangladesh, Sri Lanka, Endocrinology & Metabolism.
18. To investigate the role of PARP-1 in cisplatin resistance in cervical cancer, Medical Oncology, IRCH.
19. Role of hydrogen sulphide in migration of human trophoblast cells and its impact on placentation : an in-vitro study, Anatomy.
20. Organization of the myenteric plexus in midgut, hindgut and ileocecal valve at various gestational ages in humans, Anatomy.
21. Phase II Prospective Trial To Study Role of NEO adjuvant chemotherapy with Weekly Paclitaxel and Carboplatin Followed by Chemo Radiotherapy, the Impact of Epithelial Growth Factor Receptor and Targeted Therapy In Locally, Radiotherapy.
22. Study of Genome-wide Transcriptional Landscape of Ovarian Endometriosis, Dept of Physiology.

Completed

1. CORONIS-International Study of Caesarean Section Surgical Technique-A Randomized Control Trial, Oxford University, London.
2. Role of Sub antologons Stem Cell Implantation in Women with Asherman Syndrome, ICMR.
3. A Pilot Study : Role of Subendometrial Transplantation of Autologus Stem Cell in women with Asherman Syndrome and Poor Endometrium, ICMR.
4. A Study on Treatment of Genital Tuberculosis : A Randomized Controlled Trial of Either discontinuation at 6 mths or Continuation at 9 mths after Initial Response to 6 month RNTCP Category I Treatment, Central TB Division, MOHFW.
5. Weekly paclitaxel in combination with carboplatin every 3 weeks for advanced epithelial ovarian cancer: A phase 3 randomized study, Medical Oncology, IRCH.

6. Endoplasmic reticulum stress in preeclampsia : an *in vitro* study, Anatomy.
7. Safety and Efficacy of Low Dose Intrathecal Morphine For Total Laparoscopic Hysterectomy, Anaesthesia.
8. Incidence of ovarian failure with cyclophosphamide therapy in females < 40yrs, Medicine.
9. Study on Prevalence, Risk Factors and Outcomes of Cancers in HIV in India, Medicine.
10. Comparative study to assess the knowledge and practices regarding prevention and management of Parent to Child Transmission of HIV among staff nurses who are working in AIIMS, College of nursing.

PUBLICATIONS

Journals: 47

Abstracts: 1

Chapters in Books: 14

PATIENT CARE

- Gynae Endocrine Clinic every Wednesday : a special clinic run for young women with any endocrine problems like PCOS, Disorders of Sexual Differentiation, Premature menopause.
- IVF Clinic- Actively running and handling IVF clinic of the unit. Recruiting patients and doing IVF and other ART procedures (15-25 per month)
- Infertility couples management
- Antenatal clinic – managing antenatal patients on outdoor and indoor basis.
- Involved actively in clinical care of patients in OPD and indoors.
- HPV DNA testing – 440

POSTPARTUM PROGRAMME

Achievements of different Family Planning Methods, Post Partum Programme

Methods	Previous year (2013-14)	Current year (2014-15)
Cu T	809	796
Oral pills	1053 pkts	718 pkts
Conventional contraceptives	30,820 pieces	2730 pieces
Tubectomy	1110	911
Vasectomy	10	1

Maternal and Child Health (MCH) performance

Services	Performance in 2013-14	Performance in 2014-15
Pregnant women		
TT 1 st Dose	1669	1634
TT 2 nd Dose	1144	803
Children (0-1 year) immunization		
DPT 3rd Dose		
Males	245	30
Females	186	21
Polio 3rd Dose		
Males	245	30
Females	186	21

BCG		
Males	1580	1482
Females	1338	1237
Measles		
Males	810	712
Females	543	587
DT (<5 yrs)	Not Administered	Not Administered

Distribution of Patients' attendance by type of clinics

Clinics	Number of times/ week	Patients attended during 2014-15	
		New	Old
General OPD	6	37331	68071
High risk pregnancy clinic	3	2364	13689
Gynae Endocrine clinic	3	44	67
Gynaecological cancer	2	780	3110
IVF clinic	1	818	2866
ANC	3	797	4240
Family Welfare clinic	6	5159	3392

List of operations performed during 2014-2015

Operation	Type	Unit 1	Unit 2	Unit 3	Total
Amniocentesis	Minor	118	105	141	364
Chronic Villus Sampling	Minor	87	58	107	252
IUT (Fetal Medicine)	Minor	14	27	87	128
Cordocentesis	Minor	13	3	30	46
Fetal Medicine Total	Minor	232	193	365	790
Diagnostic Hysteroscopy	Minor	441	617	450	1508
Laproscopy Diagnostic	Major	239	352	282	873
Hysteroscopy Polypectomy	Major	22	19	22	63
Hysteroscopy Septal Resection	Major	15	21	7	43
Adult Gynaecology-Hysterectomy	Major	150	240	104	494
Adolescent Gynaecology	Major	24	30	28	82
Lap Cystectomy	Major	43	25	28	96
Gynae Oncology	Major	82	163	65	310
Lap Myomectomy	Major	33	12	20	65
Plastic Reconstructive Surgery	Major	16	11	11	38
Recanalisation Cornual Implantation	Major	11	8	10	29
Open Myomectomy	Major	15	30	12	57
Hyst Myomectomy	Major	7	13	10	30

Minor

EA and ECC:	1362	D&C:	18
IUI:	438	Iron therapy:	282
NST:	2883	MTP-USG:	5724
EA:	2132	Colposcopy/cryo/LEEP:	375
Ovarian cyst aspirations:	61	No. of MTP:	838
PAP smear:	5154	Cervical biopsies:	295
Obstetric ultrasound:	8691	Gynae Ultrasound:	5724

Obstetrics

Major: LSCS	1147
Minor: Operative vaginal deliveries (Forceps and Ventouse):	123
Normal vaginal deliveries:	1243

Public Lectures (Neerja Bhatla, Professor)

1. Training on Visual inspection with acetic acid (VIA) and Visual inspection with Lugol's iodine (VILI) for Asha Workers conducted by Hindu Rao Hospital, New Delhi, 1st April, 2014.
2. Moderator in panel discussion on **Various aspects of cancer in relation to medical youth**. Lecture for Pink Chain Campaign at JLN Auditorium, AIIMS, 19 Sept, 2014.
3. Breast & Cervical Cancer: Prevention and Management.
4. Public Lecture & Panel Discussion organized by Media & Protocol Division at JLN Auditorium, AIIMS, 28th Jan, 2015.
5. As Chairperson, Media & Protocol Division organized Public Lecture Series Program
6. Dengue and Ebola Virus Infections, 21 August, 2014
7. Be Heart Wise, 27 September, 2014
8. Prevent Stroke – Save the Brain, 29 October, 2014
9. Recurrent Cough, Cold and Wheezing in Children: Is it ASTHMA? 25 November, 2014
10. Children With disabilities- lets make their lives better, 11 December, 2014
11. Breast and Cervical Cancer : Prevention and Management, 28 January, 2015
12. Childhood Cancer is Treatable, 14 February, 2015
13. Glaucoma- Improvements in care, 11 March, 2015
14. Healthy Body Through Healthy Mouth, 20 March, 2015
15. TB Control – Together We Can, 1 April, 2015

Cervical Cancer Camps (Neerja Bhatla, Professor)

1. Organized Cervical Cancer Screening Camp at ICPO, Village Bisrakh, Noida – 16th October, 2014.
2. Organized Cervical Cancer Screening Camp at Naz Foundation, East of Kailash – 22nd December, 2014.
3. Organized Cervical Cancer Screening Camp at Seema Puri – 20-21st January, 2015.
4. Organized Cervical Cancer Screening Camp at Seelampur – 22nd January, 2015.
5. Organized Cervical Cancer Screening Camp at Usmanpur – 23th January, 2015.
6. Organized Cervical Cancer Screening Camp for EHS beneficiaries at Gynae OPD, AIIMS, 27 January, 2015.
7. Organized Cervical Cancer Screening Camp at Jhajjar, 29th January, 2015.
8. Walk for Life – Stride against Cancer from Niti Marg, Chanakyapuri, New Delhi, 8th February, 2015, (9.00 am -11.00 a.m.) organized by CanSupport.

Community services/camps

Dr Seema Singhal, Asst. Professor volunteered for two weeks for supporting Medical services as a part of flood relief team during Kashmir floods. Worked at Jawahar Lal Nehru District Hospital, Rainawari, Srinagar from 28.9.14 to 11.10.14.

Dr Jyoti Meena, Asst. Professor volunteered for supporting medical services for flood relief. Went to Jammu and Kashmir for 15 days from 11.10.14 to 25.10.14.

Dr Nutan, Professor Organized a programme for training to PCOs patient on 26.2.2014.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Alka Kriplani was Awarded **Padma Shri** for distinguished service in the field of Medicine by Government of India, March 2015; Life time Achievement Award by International Fertility Centre & GESI (Gynae Endocrine Society of India) Delhi, 23-26 May 2014; DMA Chikitsa Ratan Award for outstanding contribution in the field of Medicine by Delhi Medical Association (DMA), 29 June 2014; IMA Medachievers.com Awards 2014 for celebrating exemplary achievements in healthcare on the occasion of Doctor's day by Dr. Harshvardhan, Hon'ble Minister of Health, Govt. of India, 1st July 2014; Medgate Best Gynaecologist of Delhi/NCR 2014 Award at 4th Medgate Annual Award Function, Delhi, 23rd August, 2014; Stree Udyamita Samman 2015 for her contribution in the field of Medicine by Gandhi Smriti and Darshan Samiti, 12th March, 2015; President AOGD (Association of Obstetricians & Gynaecologists of Delhi), 2013-14; National corresponding Editor, J Obst & Gynae India (2014 continuing); President DGES (Delhi Gynaecological Endoscopists Society) 2014-16; President elect FOGSI (Federation of Obstetrics & Gynaecological Societies of India), 2016; Award To Research Work Co-Author: Awarded 2nd prize for poster presentation for 'Chylous ascitis: A rare laparoscopic finding in a case of infertility' at IAGE MISCON 2014- Annual Conference of Indian Association of Gynaecological Endoscopists, New Delhi, August 2014. (Dr. Mayur Thosar); Awarded FOGSI-CORION AWARD (2nd runner up) for the year 2014, for the Best Scientific Research Work in Obstetrics & Gynaecology in the senior category on Intra-amniotic instillation of surfactant for prophylaxis of neonatal respiratory distress syndrome in preterm birth, at 58th AICOG 2015, Organized by FOGSI, Chennai, 21-25:01:2015; Delivered following orations: (i) Myomectomy – Newer Insights I VF Past, Present & Future at International Conference on Reproduction, Fertility & Surrogacy, Organized by International Fertility Centre & Dept Obst Gynae under the aegis of Gynaecological Endocrine Society of India (GESI), AIIMS, Delhi, 24:5:2014, (ii) Endoscopic surgery in BOH at PPIM (Principles and Practicals in Infertility Management) Infertility Conference, Organized by Western Maharashtra Chapter at Indian Fertility Society in association with Nashik Obs & Gyn Society (NOGS), Nashik, 13:7:2014, (iii) Past, Present & Future of Hysterectomy at AUBCON, Organized by Jaipur Obstetrics and Gynaecological Society, Jaipur, 12:7:2014, (iv) Endoscopy in BOH, at 36th Annual conference of AOGD, Organized by Association of Obstetricians and Gynaecologists of Delhi, Delhi, 26:10:2014, (v) Endoscopy in BOH, at 10th Annual National conference of Indian Fertility Society, organized by Western Maharashtra Chapter at Indian Fertility Society, Pune, 21:12:2014; Chief Guest for CME of ESI-PGIMSRS, Organized by Dept of Obs & Gynae, ESI-PGIMSRS under the aegis of IFS & Infertility Committee of AOGD, Basaidarapur, Delhi, 24:7:2014.

Professor Sunesh Kumar was Peer Reviewer 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 Gynae at PGI, Chandigarh; Member, Selection Committee for the selection of Faculty in Gynae at PGIMER, Rohtak; Member, Selection Committee at Pt. B.D. Sharma University of Health Sciences, Rohtak; Member, PG Teaching Board, Aligarh Muslim University; Member, ICMR Group on Research in Reproductive Medicine; Member, ICMR Research Advisory Committee for Model Rural Health Research Unit (MRHRU), Rajasthan; Member, Selection Committee for the selection of Faculty at Sher-i-Kashmir Institute of Medical Sciences, Srinagar; Member, Bureau of Indian Standard, Ministry of Consumer Affairs, Food & Public Distribution, Govt. of India; Member, DBT Sub-Group Committee for finalizing the REACH Scheme for Biotechnology based Programme for Women; Member, Subcommittee on Cancer Cervix, Tata Memorial Hospital, Mumbai; Member, Technical Specification/Selection Committee at AIIMS, New Delhi; Member, Staff Council Committee at AIIMS, New Delhi; Member, Ethics Committee, AIIMS, New Delhi.

Professor Dipika Deka delivered Prof. Padma Rao Memorial Oration on Intersex at Annual Postgraduate update on July 12th–13th 2014 at Manipal. Organised by Manipal O & G Society; Delivered Dr Suman Kher Oration on Preconceptional Care at the National Conference of the Society of Fetal Medicine on 1–3 August 2014 at Kochi; Elected President, Society for Fetal Medicine, 1 April 2014–31 March 2016.

Professor Neerja Bhatla started the following New Teaching Initiatives as National Expert for the Certificate Course in Gestational Diabetes Mellitus in Evidence Based Diabetes Management at Public Health Foundation of India (PHFI), New Delhi, developed teaching module on Gestational Diabetes; Course Convenor for the First Indian Live Cadaver Hands on training course on Peritonectomy and HIPEC, Bangalore, 28-29 March, 2015, (under the aegis of AGOI); Worked with Medical Council of India as an Expert to redraft the existing UG curriculum in Obstetrics & Gynaecology, 2014; involved in the Development of Guidelines as Member of an Expert Group to develop 'Training modules for Comprehensive Cancer Cervix Screening & Management, WHO South East Asia Regional Office, New Delhi, 13-14 November 2014; Delivered the Dr. Harald zur Hausen Oration: Eradication of Cervical Cancer: Dream or Reality? On Cancer Cervix Eradication Day, Regional Cancer Centre, Cuttack, Odisha, 11 March, 2015; President, Asia Oceania research organization on Genital Infections & Neoplasia (AOGIN), 2014-16; President, Association of Gynaecologic Oncologists of India (AGOI), 2014-15; Board Member, International Federation for Cervical Pathology and Colposcopy (IFCPC), 2014-17; Member, Scientific Committee of the International Federation for Cervical Pathology and Colposcopy (IFCPC), 2014-17; Chairperson, Oncology & Trophoblastic Tumors Committee, FOGSI, 2014-17; Participated in a delegation from AIIMS to visit the Universities in Netherlands to explore areas of academic and scientific collaboration based on the principle of mutual equality and reciprocity of the benefits, 26-29 August, 2014; Invited by MOHFW to attend the meeting to develop a Comprehensive PPH strategy for India, Colombo, Sri Lanka, 29 October, 2014; As Media & Protocol Division Chairperson, facilitated the visits of delegations to AIIMS from: (i) Japan Foundation for Cancer Research (JFCR), (ii) Swedish Ministry for Health Care, Public Health and Sport, (iii) The Royal College of Physicians, UK, (iv) Bangladesh, (v) International Business Council, USA, (vi) Osaka University, Japan, (vii) Korea and (viii) Republic of Fiji; Conducted Usability Assessment Exercise on models for a new Cryotherapy device for treatment of cervical intraepithelial neoplasia with Jhpiego at AIIMS, 1-2 Dec 2014.

Professor Nutan Agarwal was Chairperson of Committees of Endo Society of AOGD; Prepared guidelines for management of the abnormal uterine bleeding in Indian perspective; Corion Award for innovative research from FOGSI 2014-15 on topic Intrammativ installation of surfactant before preterm birth to prevent respiratory distress syndrome in neonate; Second Award for poster presentation in National Conference of Gynae Endocrine on 25-27 April 2014 on topic Rare Case of Escobar syndrome diagnosed on ultrasound Authors: Agarwal N, Lata K, Kriplani A, Kabra M; Leelawati Award for best thesis as chief guide To study the role of combined Hormonal vaginal ring in the management of Dysfunctional uterine bleeding – Student Dr. Monica Gupta; Chief Editor of India J. of Obst. & Gynae. under Red flower publication; Advisory Committee of Wolter Kluwer – for up-to-date in clinical practice on 23.02.2015; Examiner for UPSC selection for gynae specialist on 18.02.2015.

Dr J.B. Sharma attended Satya Paul Oration Awards on 8 th November 2014 as, Editor in Chief of Indian Obstetrics and Gynaecology a speciality National Journal Of Obsterics and Gynaecology published from New Delhi; Author: Textbook of Obstetrics, Avichal Publishing Company, New Delhi, 2014; Editor: Indian Obstetrics and Gynecology; Obs. & Gynae Today. A speciality national journal of obstetrics, Gynaecology and infertility, Mediworld publications, Delhi; Associate editor: International Journal of Gynecology & Obsterics India. A joint publication of FIGO (International Federation of Gynecology and Obstetrics) and Medical communication Network, India; Asian Journal of Obstetrics and Gynaecology, published from Delhi; Indian Journal of Gynaecologic Endoscopy published from Delhi; Case reports in Medicine; International Journal of Gynae Plastic Surgery; Reviewer for International Journal Of Gynecology and Obstetrics, USA; European Journal of Gynecology and Obstetrics, Europe; Archives of Gynecology and Obstetrics, Switzerland; Indian Journal of Medical Research; Journal of Obstetrics & Gynaecology of India; Fertility & Sterility; Journal of Midlife Health; Journal of Obstetric & Gynaecological Research

Dr Neeta Singh was Awarded Fellowship of American College of Surgeons (FACS); Member of Expert Group for formulation of Indian Guidelines for Obstructive Sleep Apnea (INOSA); Member of Expert group on formulation of Guidelines for Bariatric Surgery for CGHS–Ministry of Health & Family Welfare.

Dr Garima Kachhawa was Delhi Gynae Endocrine Society- Secretary, 2014-2016

Dr Reeta Mahey Participated in organizing annual Endoscopy Workshop and conference IAGEMISCON 2014 as Treasurer (held on 29-31st August 2014); Participated in organizing GESICON 2014; Organized an IVF Symposium Update in IVF- Bridging the Gaps held on foundation day celebration of IVF Facility (AIIMS) on 8th February 2015; Helped in organizing and conducting WHI Endoscopy Training Programme in the department in November 2014.

Dr P.Vanamail became annual member of Royal Statistical Society of London; Chairperson for Moot court session in annual conference of IAGE -MISCON 2014, New Delhi, 29-31st August; Reviewer Women & Health; and Indian Journal of Medical Research.

Dr Vidurshi Kulshrestha awarded 2nd prize for paper presentation as co-author for 'Chylous ascitis: A rare laparoscopic finding in a case of infertility' at IAGE MISCON 2014- Annual Conference of Indian Association of Gynaecological Endoscopists, New Delhi, August 2014; Invited as Member-Expert Group for the following: 2nd Expert Group meeting for framing guidelines for calcium supplementation, deworming, Gestational Diabetes Mellitus and Hypothyroidism in pregnancy, organized by Dept of Obs & Gyn, KGMU, Lucknow and MH Division, Ministry of Health & Family Welfare, Govt. of India, Srinagar, 25th-27th July, 2015; Expert group meeting on newer RMNCH+A Initiatives, organized by MH Division, Ministry of Health & Family Welfare, Govt. of India, Delhi, 3 Sep 2014; Expert Group Meeting for developing guidelines on Extrapulmonary TB under the Revised National Tuberculosis Control Programme (RNTCP), organized by Dept of Medicine, AIIMS, New Delhi, 24th Jan 2015; Expert Group Meeting for developing guidelines on Extrapulmonary TB under the Revised National Tuberculosis Control Programme (RNTCP), organized by Dept of Medicine, AIIMS, New Delhi, 18th March 2015; Member-Expert Group for developing *Evidence-based Clinical Practice Recommendations for Indian women* for Management of Abnormal Uterine Bleeding in Reproductive Period [*A Gynae Endocrine Society of India (GESI) initiative in collaboration with Endocrine Committee of Association of Obstetricians & Gynaecologist*]; Attended following workshops related to teaching and Research: Microteaching Workshop organized by CMET AIIMS, New Delhi, 12:11:2014; AIIMS-UM Research Methods Workshop-2014, conducted by Research Section, All India Institutes of Medical Sciences (AIIMS) and University of Michigan, 1-5:12:2014, New Delhi; Cochrane Protocol Development Workshop, organized by South Asian Cochrane Network & Centre, Christian Medical College, Vellore, 9-13:2:2015; Pre conference Workshop on Gynae Endocrine & Adolescent Health at 36th Annual Conference of AOGD, New Delhi, 24:10:2014 as Co-Convenor.

Dr Seema Singhal was Conferred memberships of European society of Gynaecologic Oncology (ESGO); The International society for Gynaecologic Endoscopy ISGE); Asia Oceania research organisation on Genital Infections and Neoplasia India (AOGIN); Association of Gynae oncologists of India (AGOI); National academy of Medical sciences (MNAMS); Subject Expert Committee member: (i) Subsequent New Drug Division (SND) CDSCO (HQ) for the evaluation of various categories of applications of clinical trials, new drugs and new medical devices. Attended 10th and 11th SEC Reproductive and Urology on 16th January, 2015 and 27th February, 2015 organized by central Drug Standard Control organization, (ii) Revision of National List of Essential Medicines in 6th National Consultation meeting held on 18th and 19th February, 2015 at AIIMS Delhi, (iii) Expert member for the development of Indian first aid manual at Indian Red Cross society; Reviewer for following journals: European Journal of Obstetrics & Gynecology and Reproductive Biology, European journal of Medical Research, Obstetrics and Gynaecology Cases – Reviews, Indian Journal of Medical research and Journal of clinical and diagnostic research; Moderated a panel discussion entitled Management of Amenorrhoea on 30.11.14 in UP Chapter of Obstetrics and Gynaecology (UPCON 2014) held on 28th, 29th, & 30th November 2014 at Muzaffarnagar Medical College; Participated as a panelist in panel discussion entitled Health hazards of PET paediatric, geriatric and reproductive age organized by AGE India at Indian Habitat centre on 16th Feb 2015; Judged the Free paper session in Trauma 2014, Annual conference of Indian Society of Trauma and Acute Care, New Delhi; Chair person 58th All India congress of Obstetrics and Gynaecology at Chennai from 21st to 25th of January, AICOG; Judge of free paper session in IAGE MISCON 29th – 31st August 2014 organized by Department of Obstetrics and Gynaecology All India Institute of Medical sciences New Delhi; Examiner for Obstetrics & Gynecology of the IIIRD M.B.B.S Annual Examination 8th to 11th December 2014 at University College of Medical Sciences, Delhi.

Dr Rajesh Kumari attended Basic workshop on Research Methodology held at Dr Ramalingaswamy Board room from 8th -9th August 2014; Basic course workshop in Medical & Health Professions Education held at KL Wig.

Dr Jyoti Meena Member of interview Board in ICMR on 1.2.15, Attended Basic workshop on Research Methodology held at Dr. Ramalingaswami Board Room from 8-9th August 2014.

9.25 Orthopaedics

Professor and Head

Prakash P. Kotwal

Professors

Shishir Rastogi
Hira Lal Nag

Arvind Jayaswal
Ravi Mittal

Rajesh Malhotra
Chandra Shekhar Yadav

Additional Professors

Shah Alam Khan

Vijay Kumar

Assistant Professors

Bhavuk Garg

Ashok Kumar

HIGHLIGHTS

The Department of Orthopaedics has been a leader in providing quality patient care in all specialities of Orthopaedics. Joint Replacements are being regularly performed at AIIMS in large numbers which includes Complex Revision Joint replacement, Navigation Assisted Joint replacement Surgery. The Department has the only functional Cadaveric Bone bank in the country. The bones from this bone bank have been extensively used in various Complex Orthopaedic Surgeries. Various Complex Hand Reconstruction Surgery are being regularly performed such as Microvascular surgery, Vascularised bone transfers, Wrist Arthroscopy, Distal Ulna Replacement, Reverse Shoulder Replacement and Wide Awake Hand surgery. The Scoliosis Clinic at AIIMS is one of the largest Spine deformity Clinic and Minimally Invasive Spine Surgery, Vertebral Column resection, Navigation Assisted Spine Surgery are being performed at AIIMS. The Department has been a leader in treatment of Musculoskeletal Tumours with pelvic resections, endoprosthetic replacements as well other complex tumour surgeries being performed regularly. Various paediatric disorders have also been treated with use of newer procedures such as hip arthroscopy. Shoulder and Knee arthroscopic procedures including treatment of multiligament injuries have been done successfully.

The Department has organized cadaver courses, national and international conferences and Continuing Medical Education programmes for training of Orthopaedic surgeons. The Faculty of the Department have served as faculty for many National and International Conferences and Courses.

A number of Funded Research Projects and Clinical trials are being carried out in the Department. A number of scientific articles from the department have been published in indexed journals and presented in various national and international conferences.

EDUCATION

MBBS, MS Orthopaedics, and Short Term, Long Term and Nurses Training

CMEs/Workshops/Symposia/National and International Conferences

1. Current Concepts in Arthroplasty 2014, AIIMS, New Delhi on August 16-17, 2014.
2. AIIMS Oxford Partial Knee Replacement Course, JPNA Trauma Center, New Delhi on October 19, 2014.
3. AIIMS Cadaver Arthroplasty Course 2015" at AIIMS, New Delhi on 11th and 12th March 2015.
4. Computer Navigation Assisted Knee & Hip Arthroplasty Course at AIIMS, New Delhi on 14-15th March, 2015
5. Pre conference workshop of ISKSAA-2014 (Cadaver Arthroplasty TKA course) 4th Sep. 2014.
6. 3rd AIIMS Arthroplasty Update on 7th Dec, 2014 .JLN Auditorium, AIIMS

Lectures delivered

P.P. Kotwal: 25

R. Malhotra: 54

C.S. Yadav: 38

Bhavuk Garg: 16

S. Rastogi: 17

H.L. Nag: 7

Shah Alam Khan: 17

Ashok Kumar: 3

A. Jayaswal: 28

Ravi Mittal: 24

Vijay Kumar: 29

Oral papers/posters presented: 57

RESEARCH

Funded projects

Ongoing

1. Assessment of proximal femoral bone mineral density and systemic metal ion levels after Birmingham Mid Head Resection Arthroplasty, Rajesh Malhotra, ICMR, 4 years and 3 months, 15.03.2011 – 14.06.2015, Rs 27,30,930/-
2. 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, 3 years, 26.11.2012- 25.11.2015, Rs. 35.50 Lakhs.
3. To study the bacterial adherence and bacterial tendency of bio-film formation of different bacteria to various Bio-materials, Rajesh Malhotra, ICMR, 1 year 3months, 01.02.2014- 16.04.2015, Rs. 12.52 Lakhs.
4. Medication use patterns, Treatment satisfaction, And inadequate control of Osteoporosis Study (MUSIC):an Asia Pacific study of postmenopausal women treated for osteoporosis in clinical practice” Approved for funding by Merck for 1 year, Rajesh Malhotra, MERCK, 2 years, 25.02.2014 – 24.02.2016, Rs.3.30 Lakhs.
5. Safety Suitability and Clinical Effectiveness of Unicompartmental Knee Replacement in the Indian Population, Vijay Kumar/Rajesh Malhotra, DST-UKIERI, 2 Years, 24/09/2015-24/09/2017, Rs 35 lakhs.
6. Evaluation of Adverse Reaction to Metal Debris (ARMD) in Indian patients who have undergone Hip Arthroplasty with a Metal on Metal Articulation, Vijay Kumar, AIIMS, 2 years, Oct 2015-Oct 2017, Rs 3,55,382/-
7. Isolation and molecular characterization of human bone marrow derived mesenchymal stem cells, Ravi Mittal, AIIMS, 2 years, October 2013- october2015, Rs.10 lacs.
8. Does thumb opposition recovers following carpal tunnel release, Bhavuk Garg, AIIMS, 2 years, 2014-2015, Rs. 3 lakhs.
9. 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 Innovative Young Biotechnology Award, 3 years , 2014-2017, Rs. 50 lakhs.

Completed

1. Database of Scoliosis Patient” (ICMR I-644), Arvind Jayaswal, Indian Council of Medical Research (ICMR), 5 years, 18/03/2010 to 16/03/2015, Rs. 17, 65,800/-

Departmental projects

Ongoing

1. Management of adhesive capsulitis of shoulder.
2. The effect of pre-operative psychological factors on the post- operative outcome following total knee arthroplasty.
3. Role of extra corporeal radiation therapy in malignant bone tumours – a clinical & biomechanical study.
4. Comparison of MR Arthrogram and Wrist Arthroscopy in evaluation of chronic wrist pain.
5. Evaluation of results of unicompartment knee replacement with an attempt to define its role in Indian population.
6. Evaluation of tunnel widening and bony bridge between femoral and tibial tunnels in patients treated with double bundle ACL. Reconstruction for ACL tear. Using multi-detector ct scan and their correlation with the knee stability and functional outcome.

7. Retrospective study assessing clinical and radiological outcome in patients who have undergone that with metal on metal vs metal on poly articulation.
8. Comparison between PFNA and DHS in type ii intertrochanteric fractures.
9. Ct based morphometric study of subaxial cervical spine pedicle in young asymptomatic individuals.
10. A prospective randomized clinical trial to compare clinical, fluoroscopic and radiological outcome between medial pivot and posterial stabilized knee.
11. Clinical and electrophysiological assessment of injury to infra patellar branch of saphenous nerve during ACL reconstruction using oblique incision for hamstring graft harvest: pilot prospective study.
12. Retrospective and prospective study to evaluate clinical and radiological outcome of total hip arthroplasty in patients of age equal to or less than 35 years.
13. Correlation between serum biomarkers, dynamic MRI and histopathology in paediatric osteosarcomas.
14. Clinico-radiological evaluation of anterolateral ligament of knee in ACL injury patients.
15. A prospective observational study of pelvic fractures managed in level 1 trauma centres.
16. To study the socket widening and graft heading in all inside arthroscopically assisted ACL reconstruction with use of MRI.
17. Clinical and Electro physiological Assessment of injury to Infra-Patellar Branch(es) of Saphenous Nerve during ACL reconstruction using Oblique Incision for Hamstring graft Harvest: Prospective study.
18. Evaluation of a Novel Clinical Test for Diagnosis of Tear of Posterior Horn of Medical Meniscus of Knee with the Help of Magnetic Resonance Imaging.
19. Retro prospective Analysis of “partial” Bundle Anterior Circulate Ligament Tear – Diagnosis and Management with ACL Augmentation.
20. Role of NMR spectroscopy in Recurrent and Aggressive Giant Cell Tumours – A clinical pathological and radiological correlation.
21. Evaluation of comparison of factors associated with local recurrence in operated cases of osteosarcoma and Ewing’s Sarcoma.

Completed

1. Botulinum toxin versus single event multilevel surgery (sems) in children with lower limb deformities in spastic cerebral palsy a – randomised comparative study.
2. Ultrastructural morphology of anterior cruciate ligament stump in ACL injured patients and semitendinosus graft used for ACL reconstruction with the help of electron microscopy and light microscopy: a comparative study.
3. Arthroscopy of the hip in children with legg-calve-perthes disease and its correlation with imaging.
4. 3D CT evaluation of ACL foot print on femur and the position of femoral tunnel after single bundle ACL reconstruction.
5. Randomised trial comparing injection PRP with Corticosteroid injection in subacromial impingement syndrome.
6. Randomised controlled trial for comparison of functional outcome in TKR with and without tourniquet.
7. Role of bisphosphonates in the management of giant cell tumor of the bone-a randomized comparative clinical, histopathological and radiological study.
8. A prospective study comparing the clinical, radiological and functional outcomes between variable angle and fixed angle volar locking plate for displaced Intra-articular distal radius fractures.
9. Evaluation of Functional and Radiological Outcome of Surgically treated posterior wall fractures of acetabulum – a Prospective Study.

Collaborative projects

Ongoing

1. Patient specific stress analysis in Congenital Dislocation of the Hip, IIT, Delhi.

2. Biomechanical Investigation of Extracorporeal Irradiation Therapy in Malignant Bone Tumors, IIT, Delhi.
3. Evaluation of Clinicopathological features, treatment outcome and prognostic factors of patients with Osteosarcoma, Department of Medical Oncology, IRCH, AIIMS.
4. Design and Development of Hip Protective Device, Indian Institute of Technology, Delhi (IIT).
5. Etiology of rheumatoid arthritis – An exploratory study of the role of phosphoproteomics, Institute of Genomics and Integrative Biology, New Delhi.
6. Safety, Suitability and Clinical Effectiveness of Unicompartmental Knee Replacement in the Indian population, IIT Delhi, Deptt. Of Radio diagnosis, New Delhi.
7. Efficacy & safety of Lawsonia inermis, Colchicum luteum, Terminellachebula in experimental models of Arthritis, Deptt. Of Pharmacology, AIIMS.
8. A study to establish the role of T – helper 17 (Th-17) cells in Asian Indian Arthritis patients, Deptt. Of Pharmacology, AIIMS.
9. Efficacy & safety of Gloriosa superba, Berberis aristata, Cissus quadrangularis in experimental models of Arthritis rats., Deptt. Of Pharmacology, AIIMS.
10. Establishing a national level repository of clinical samples & Mycobacterial isolates, Deptt. Of Lab. Medicine.
11. MR evaluation of chronic ankle pain, Deptt. Of Radiodiagnosis.
12. Comparison of EMT/MET profile in Mesenchymal stem cells and synovial sarcoma, Deptt. Of Biochemistry.
13. MR evaluation of chronic elbow pain, Deptt. Of Radiodiagnosis.
14. Clinical and molecular investigation of Bone Tuberculosis in humans, Institute of Genomics and integrative biology.
15. Total intravenous anaesthesia Vs sub arachnid block in unilateral TKA- A comparison of recovery profile and time to readiness for discharge” Candidate, Department of Anaesthesia.
16. Magnitude of Prosthetic Joint Infection and role of amplification based DNA analysis for identifying microbial profile of prosthetic joint infection in a tertiary care hospital, Department of Microbiology.
17. To study the waiting time for elective surgical procedures in select surgical specialities at AIIMS Hospital. Analyzed the factors leading to wait time and suggest ways to reduce the same, Department of Hospital Administration.

PUBLICATIONS

Journals: 40

Chapters in Books: 4

PATIENT CARE

General Outpatient Services

Hand Clinic, Sports Clinic, CTEV Clinic, Scoliosis Clinic and Bone Bank

1. Prof HL Nag attends the injured athletes at J.L Nehru Stadium, New Delhi, in the afternoon, once a week,
2. One day camp in Ranchi, organized by IICM on 23rd Feb 2015, attended by Dr Bhavuk Garg
3. Two days camp in Sitamarhi and Muzzafarpur organized by Maulana Mazroof educational society on 11th to 12th March, 2015 attended by Dr. Vijay Kumar and Dr. Bhavuk Garg

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor P.P. Kotwal delivered the IORA (Indian Orthopaedic Rheumatology Association) Oration on “Rheumatoid Hand” at the 6th Annual Conference of the Indian Orthopaedic Rheumatology Association held at Srinagar; June 2014; PLENARY lecture on “Going Forward: The Reverse Way” at the “Current Concepts in Arthroplasty” held at AIIMS, New Delhi, August 2014; Dr B. Mukhopadhyaya Eponymous Lecture of the Indian Orthopaedic Association at the Annual Conference of the Indian Orthopaedic Association held at Hyderabad; November 2014. Topic “Kienbock’s Disease: The evolving experience”. The Paul R. Manske Award for the 2013 Article with the Greatest Impact on the Surgical Care of the Child’s hand for the Best Upper Extremity Congenital

Research Manuscript published in the J. Hand Surgery; Nominated as Nominee of His Excellency the Governor of Haryana and Chancellor of the Pt. B. D. Sharma University of Health Sciences, Rohtak on the Selection Committee for 2 years, April 2013; Chairman, UG/PG Curriculum Committee of the Indian Orthopaedic Association, from 2009 – To Date; President of the Indian Society for Surgery of the Hand, Sept., 2014- To Date; Chairman, Selection Committee for Junior Physiotherapist/ Occupational Therapist at AIIMS, Feb. 2015; Chairman, Committee for Computerization at AIIMS, New Delhi, Jan. 2014 to date; Chairman, Medical Board for verification of Physically Handicapped Candidate for recruitment to the post of Lab Technicians at AIIMS, New Delhi, August 2014; Chairman, Committee constituted to resolve the issue of supply and release of payment for supply of Electric Autopsy Saw for the Department of Forensic Medicine at AIIMS, New Delhi, Oct. 2014; Chairman, Committee for creation of New OPD Block at Masjid Moth campus, AIIMS; Feb. 2015; Kendriya Vidyalaya, INA Colony, New Delhi, 2003 - to date; Member, National Coordination Committee for Antarctic Programme (NCAP) and National Coordination Committee for Polar Science Programme (NCPP); constituted by the Ministry of Earth Sciences, New Delhi; August, 2011 – To Date; Member, Central Committee of the 42nd Annual Convocation at AIIMS, New Delhi, Sept. 2014; Member Selection Committee – Programmers at AIIMS, March 2015 Attended the Selection Committee Meeting of Pt. B.D. Sharma Univ. of Health Sciences, Rohtak as Nominee of His Excellency Governor of Haryana & Chancellor of the University; June 2014; Expert Member, Selection Committee of Pt. B.D. Sharma Univ. of Health Sciences, Rohtak for the selection of Professor/ Assistant Professor of Orthopaedics, Jan. 2015; Expert Member, Selection Committee of the Indira Gandhi Institute of Medical Sciences, Patna for the selection of Assistant Professor of Orthopaedics, Feb. 2015; Expert Member, Selection Committee of K. G. Medical University, Lucknow to select Assistant Professor of Orthopaedics, Feb. 2015; Member, Medical Device Advisory Committee (MDAC - Orthopaedics) constituted by CDSCO (Central Drug Standard Control Organization), Director General of Health Sciences, New Delhi 2014; Expert Member, Sub-committee constituted by the Chairman, Medical Council of India in reference to the order by the Hon'ble High Court of Chief Commissioner for persons with disabilities – Regarding provisions relating to reservation of disabled persons contained in Graduate and Post –Graduate medical education regulations, October 2014; Member, Subject Expert Committee (SEC), Constituted by the Drug Controller General of India, New Delhi, July 2014. To advise in matters related to approval of: Clinical Trials, New Drugs., New Medical devices; Expert Member, National Consultation Meeting for National List of Essential Medicines, Feb. 2015

Professor A. Jayaswal was President of the Society for Minimally Invasive Spine Surgeons of India (MISSI); Chairman of Asia Pacific Spine Society (APSS) – Spine Section of Asia Pacific Orthopaedics Association; Fellow of Scoliosis Research Society (SRS); Board/Executive committees member of Pacific Asia Society for Minimally Invasive Spine Surgery (PASMIS), Association of Spine Surgeons of India (ASSI) & Indo- American Spine Alliance (IASA), Asia Pacific Orthopaedic Association (APOA); Dr. A.K. Saha Memorial Oration of the West Bengal Orthopaedics Association; Demonstrated Spine Surgeries at Operative Course in Spinal Surgery at Hanoi (Vietnam), Yangon (Myanmar), Kathmandu (Nepal) and Bangalore; Course coordinator for conducting Spine Course & CME by Asia Pacific Orthopaedic Association (APOA) and Asia Pacific Spine Society (APSS).

Professor R. Malhotra was Expert for DBT Committee of Task Force on Stem Cell Research and Regenerative Medicine; Member of Expert Group for Department of Biotechnology (DBT) Task Force on Bio Engineering Project; Chairman in ICMR Task Force on Cancer Management of the sub-committee on guidelines for Soft Tissue Sarcoma and Osteosarcoma; Expert for Committee Constituted by Director, ICMR for selecting key during “Innovations in Medical Science and Biotechnology” held at Rashtrapati Bhavan on 11th March 2015; Chairman Subcommittee - Fragility Fracture Network (FFN); Convener Orthopaedic Initiative of ISBMR (Indian Society of Bone Mineral Research).

Professor H.L. Nag was Honorary consultant for Sports Authority of India (SAI), Secretary General of Indian Federation of Sports Medicine (IFSM), Appointed Member, Hospital Management Board, Nominated Member, Technical Specification Selection Committee of Surgical Items, External Examiner for MS, D Orth and DNS Examination; Secretary, Orthopaedic Research Society, AIIMS; Member, store purchase committee AIIMS; Nominated Expert of High Powered Therapeutic use Exemption (TUE) Commission of National Anti Doping Agency (NADA), Govt. of India; Nominated Appraiser for DNB Trainees by National Board of Examination; External Expert to assist the assessment board for selection of faculty members in Dept. Orthopaedics, Indira Gandhi Institute of Medical Sciences, Patna; Expert for ‘Total Health’ on sports injuries – live TV programme on DD News; Member, Dept. Promotion to the officers in GDMO, sub-cadre at AIIMS; Chairman, Enquiry Committee or Departmental complains; Member, Selection Committee of junior Occupational Therapist; Faculty In-charge of physiotherapist unit

Professor Ravi Mittal was Member of drug selection committee at AIIMS; Member of MBBS curriculum at AIIMS; Member of postgraduate board of studies at PGIMER Rohtak; Reviewer for Indian Journal of Orthopaedics; Member of editorial board of Journal of Foot and Ankle Surgery Asia and Pacific; Editorial board member of Journal of Krishna Institute of Medical Sciences university; Member of core committee of RNTBCP

Professor C.S. Yadav Nominated to Limca Book Record for TKA, Jan. 2015; Yash Bharti Award ON 9TH Feb. 2015 by Chief Minister of UP - Highest Civilian award by Government of UP

Dr Shah Alam Khan was Awarded the “Gandhian Young Technological Award-2015” for work on Biomechanical investigation of Extracorporeal Irradiation Therapy in Malignant Bone Tumors

Dr Vijay Kumar was Member, Management Committee of CMET; Central Assistant Public Information Officer (CAPIO), Department of Orthopaedics; Editorial Board of Orthopaedics Today; Reviewer for Journal of Medical Case Reports, Indian Journal of Orthopaedics, Clinical Orthopaedics and Related Research; Subject Expert for the Selection Committee Meeting for recruitment of Faculty and SR on 11.12.2014 at Department of Orthopaedics, AIIMS, Bhubaneswar; Examiner MS Orthopaedics and MBBS Exam, AIIMS; Examiner for Orthopaedics Surgery of the BPT Program at College of Physiotherapy, PGIMS, Rohtak

Dr Bhavuk Garg was awarded Fellowship of American college of Surgeons (FACS); Member of Indo-American Spine Alliance; Member of Indian biologics orthopedic society; Member of Asian Council of Science Editors; Member, editorial board, Indian Journal of Orthopedics

VISITING SCIENTIST

1. Mr. Hemant Pandit, UK
2. Ross Crawford, UK
3. Bijayendra Singh, UK
4. Fredrick Picard, UK
5. Aaron Ng, UK
6. Manjeet Bhamra, UK
7. Tarek M. Abuzazkuk, UAE

9.26 Otorhinolaryngology and Head - Neck Surgery

Professor and Head
Suresh Chandra Sharma

Professor
Alok Thakar

Additional Professor
Rakesh Kumar

Assistant Professors
Chirom Amit Singh
David Victor Kumar Irugu

Kapil Sikka
Prem Sagar

Rajeev Kumar
Hukam Singh (Contract)

HIGHLIGHTS

The Department of Otorhinolaryngology and Head-Neck Surgery at AIIMS is among the best in the country and has developed expertise in most of the current subspecialties in the Otorhinolaryngology. The department has expanded the patient care, teaching and research activities by expanding the existing clinics. The cochlear implant clinic and facial plastic surgery clinic were started on Wednesday and Friday in ENT OPD respectively.

EDUCATION

CMEs/Workshops/Symposia/National and International Conferences

1. Rhino bronchial CME – 14 March 2015
2. AIIMS Temporal bone dissection workshop- AIIMS: 12-14 February, 2015
3. AIIMS Facial Plastics and Rhinoplasty workshop 8-10 December; All India Institute of Medical Sciences, New Delhi
4. The AIIMS and ENT Master class, UK joint update 6-7 December; 2014 at All India Institute of Medical Sciences, New Delhi.
5. 12th Annual conference of Cochlear Implant Group of India, 20-22 November 2014 at AIIMS, New Delhi
6. Preconference workshop and Hands on course of Laryngology update 2014 October 2014
7. Association of Otolaryngologists of India Delhi state branch monthly meeting, AIIMS, New Delhi on 18-7 2014.

Lectures delivered

S.C. Sharma: 6	Alok Thakar: 43	Rakesh	Kumar: 14
Kapil Sikka: 16	Chirom Amit Singh: 9	Rajeev Kumar: 13	Prem Sagar: 3
David Victor Kumar Irugu: 5			

Oral papers/posters presented: 8

RESEARCH

Funded projects

Ongoing

1. Development of Indocyanine-Green loaded Cytokeratin targeted calcium phosphate nanoparticulate system for sentinel lymph node mapping in head & neck cancer. Alok Thakar. Department of Biotechnology. 3 years. 2014-2016, Rs.45 lakhs.

2. Double blinded, placebo controlled randomized, controlled trial to Evaluate the efficacy of adjuvant treatment with homeopathic medication Thuja (arbor vitae) in decreasing severity and decreasing post- surgical recurrence in recurrent respiratory papillomatosis. Alok Thakar. Indian Council of Medical Research. 3 years. 2012-2015, Rs. 55 lakhs.
3. Prevalence & Etiology of Hearing Impairment- National Task Force project (Coordinating Centre). Alok Thakar. Indian Council of Medical Research. 4 years. 2015-18, Rs. 60 lakhs.
4. Prevalence of human papilloma virus in head and neck squamous cell carcinoma. Alok Thakar. Head and Neck Cooperative Oncology Group. 3 years. 2015-18, 37 lakhs.
5. Effect of non-ionizing electromagnetic field (EMF) on human health: Auditory and vestibular effect. Rakesh Kumar. ICMR. 3 years. 2012-2015, Rs. 56 lakhs.
6. An evaluation of the surgical trauma after insertion of intracochlear electrode arrays: a Histologic Study. Kapil Sikka. AIIMS. 2 Years, 2012-2015, Rs 4,80,000.
7. An Evaluation of different endoscopic approaches on inner ear. Chirom Amit Singh. AIIMS. 2 years, 2012 2015, 4, 78,000.

Completed

1. Phase II/III randomized placebo controlled clinical trial of curcumin in resectable stage III and IV oral squamous cell cancer. Prof. Alok Thakar, Department of Biotechnology. 5 years. 2008-2012, Rs. 95 lakhs.

Departmental projects

Ongoing

1. Long term and Short term outcomes of Cochlear Implantation in prelingual children
2. Clinico Radiological and Histopathological evaluation of mandible on Oral Squamous Cell Carcinoma
3. Study of serum survivin levels in cases of oral submucosal fibrosis and oral squamous cell carcinoma comparison in age matched control subjects
4. In vivo exploration of lymphatic drainage pathway of sinonasal tumor by lymphoscintigraphy
5. To assess hearing results and complication following primary stapes surgery in otosclerosis patients with comparison between CO2 laser and conventional stapedectomy
6. Comparison between conventional cochleostomy vs round window approach for b/l profound hearing loss in cochlear implant patients
7. Single sided deafness –a study to assess the disease related morbidity and patient acceptance of the treatment options
8. Auditory and vestibular evaluation in stapes surgery in otosclerosis
9. Exploration of origin of JNA by histological assessment of fetal development of pterygoid fossa and assessment of 1st branchial arch/ vidian artery in cases of JNA
10. Estrogen B receptor positivity in JNA and its correlation with clinico radiological findings
11. A study of CPAP and its non compliance in osa patients

Completed

1. TORS for management of oropharyngeal tumors-a study of intraoperative difficulty and morbidity and disease clearance
2. Application of TORS in treatment of t1-t4 carcinoma of middle 1/3rd and oral cavity
3. A study for assessing effect of IJV ligation in intracranial pressure in patients undergoing neck dissection

PUBLICATIONS

Journals 34 Chapters in Books: 1

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:

Number of patients operated

Main OT Major cases-2391 Minor Cases-1624
Minor OT OPD procedures: 23731

Number of patient seen in OPD

New patients: 31042 Old registration: 50633

Total number of ward admissions

1259 (in ENT ward); 4309 (admitted as short admission in AB7-PAR)

No. of cases in Specialty Clinics

S. No.	Clinic	New cases	Old cases	Total
1.	Vertigo	83	69	152
2.	Audiology and Skull Base	78	46	124
3.	Cochlear Implant (This clinic runs along with audiology)	123	50	173
4.	Voice	253	60	313
5.	Rhinology	74	38	112
6.	Head and Neck Cancer	964	4300	5264

Community service clinics

Twice weekly clinics in community hospital in Ballabgarh (Recently started the operative facilities also)

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. To improve services further, faculty has also been posted at Jhajjar and also once a week at Ballabgarh.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor S.C. Sharma was Chairperson, session on keynote address on Robotic Surgery by Gregory R Weinstein. RGCON 2015. February 27 –March 1; 2015. Rajiv Gandhi Cancer hospital/ Hotel Crown Plaza, New Delhi; was organizing chairman of 7 departmental meetings organized by faculty, Department of Otolaryngology, Head and Neck Surgery. These meetings included the prestigious 12th Annual Conference of Cochlear Implant Group of India. He was Chairman of Ear, Nose and Throat surgery instrument sectional committee, MHD-04. He was invited guest faculty at various conferences including RGCON 2015 where he chaired the keynote address on Robotic Surgery. He was visiting professor at OHU Columbus and visited, department of ENT, New Cancer center and regenerative and stem cell facility. He attended 3rd annual retreat of center for regenerative medicine and cell based therapies at Mohican State park Ohio and delivered a talk on “All India Institute of Medical Sciences-An Institute of National Importance”. He delivered the AOI Delhi Guest Oration on “Management of Facial Nerve Tumors”- Various Surgical Approaches on 21-22 February; 2015 at Maulana Azad medical College, New Delhi

Professor Alok Thakar delivered Andhra Pradesh AOI Regional Guest Oration- Minimally Invasive OncoSurgery: 33rd Annual Conference of AOI AP State, Karimnagar, 14 Sept 2014. Shri Ashwani Saxena Memorial Oration- Minimally invasive approach to Head & Neck Cancer, Haryana State AOICON 2014, 8 November 2014. NES Guest Oration - The Pathophysiological Approach to Vertigo at 34th Annual Conference, Neuro-Otological & Equilibriometric Society of India, Ahmedabad, 14 March 2015. Dr. A Thakar was Invited International Faculty to the 5th World Congress of International Federation of Head-Neck Oncology Societies, the 11th Middle East Otolaryngology Conference, and the 43rd Congress of the Hungarian Society for Oto-Rhino-Laryngology, Head &

Neck Surgery. He was invited to Lecture on Robotic Head-Neck Surgery at the Medical Assembly of the Pécs Medical School at Hungary. Dr. A Thakar was conferred the Honorary Membership of the Hungarian Society for Oto-Rhino-Laryngology and Head-Neck Surgery. Hony. Secretary, Foundation for Head-Neck Oncolog. Hony. Treasurer, Skull Base Surgery Society of India. Executive Committee Member, Asia Pacific Society of Thyroid Surgery. Editorial Board member of JOURNAL OF ENT MASTERCLASS, UK. 2010-2013; THE OTORHINOLARYNGOLOGIST, UK. 2010- till date; Editorial Board Member, OTORHINOLARYNGOLOGY CLINICS- AN INTERNATIONAL JOURNAL, 2011-.

Dr Rakesh Kumar was selected for Commonwealth Fellowship on Fcaial plastics and Rhinoplasty at Doncaster Royal Infirmary Hospital and NHS trust UK from March to June 2014. Organised Pre-conference Hands on Training Course Laryngology Update 2014; Workshop on Facial plastics and rhinoplasty Dec 2014; CME rhino bronchial allergy March 2015. Executive member of AOI (Delhi Br) for the year 2015-16. Co- opted member of MHD-4 of BIS for looking after standards of ENT surgical instruments in India. Contributed to the starting of new facilities at other places in India: Cochlear implant programme at RML hospital, New Delhi and at IGIMS Patna, Bihar. Delivered a Public talk show on Hearing Impairment on Lok Sabha TV in July 2014.

Dr Kapil Sikka was organising secretary for 12th annual conference of Cochlear Implant Group of India. Member, executive committee, Association of Otolaryngologists of India, Delhi state Branch. Invited guest faculty at the 13th Asia Oceania Otolaryngology Congress, Taipei Taiwan. Assistant Editor, Indian Journal of Otology and Reviewer, Indian Journal of Otology, Indian Journal of Otolaryngology, Head and Neck Surgery and Indian Journal of Pediatrics.

Dr Chirom Amit Singh was Member of AIIMS team conducted health camp in SNM hospital, Ladakh from 25th to 30th August 2014.

Dr Rajeev Kumar was Reviewer for Indian Journal of Otolaryngology, Head and Neck Surgery.

Dr David Victor was invited as a Guest Faculty to the OTO- 2014 “Hands on Temporal Bone Dissection & Live Ear Surgery Workshop” Organized by ISO & AOI Hyderabad Branch in Association with Govt. ENT Hospital, Koti, Hyderabad, Telangana (State). Editorial Board member, ORL, Open Access /On- Line JOURNAL, India. 2014-till date.

VISITING SCIENTIST

1. Prof. Jatin P Shah , Memorial Sloan Kettering cancer center, New York
2. Prof Martin Birchall UCL’s Professor of Laryngology and a Consultant in ENT Surgery at the Royal National Throat Nose and Ear Hospital
3. Prof Bruce Haughey, Kimbrough Professor of Otolaryngology - Head and Neck Surgery, Washington University, St. Louis, US
4. Shahed Quraishi, Doncaster, UK
5. Vinidh Paleri, Newcastle upon Tyne, UK
6. Jaydip Ray, Sheffield, UK
7. Nirmal Kumar, Wigan, UK
8. Firaque Riffat, Sydney, Australia
9. Hesham Saleh, London, UK
10. Oliver Kaschke, Berlin, Germany
11. Tim Woolford, London, UK
12. Codrutta Neumann, East Kent, UK
13. Prepageran N, Malaysia
14. Prof Shakeel Saeed, London, UK
15. Richard Irwing, Birmingham UK
16. Barbara Weinstein, New York
17. Leo de Raeve, Belgium
18. Julie Hughes, Hampshire
19. Dr Ullas Raghavan- Doncaster Royal Infirmary Hospital UK

9.27 Paediatrics

Professor and Head

Vinod K. Paul

Professors

Ashok K. Deorari (Neonatology)	Arvind Bagga (Nephrology)
Sushil K. Kabra (Pulmonology, Intensive Care, Tuberculosis and Rheumatology)	Madhulika Kabra (Genetics)
Pankaj Hari (Nephrology)	Sheffali Gulati (Neurology)

Additional Professors

Ramesh Aggarwal (Neonatology)	Vandana Jain (Endocrinology)
Rachna Seth (Oncology)	Rakesh Lodha (Pulmonology, Intensive Care, Tuberculosis and Rheumatology)

Assistant Professors

Biswaroop Chakrabarty (Neurology)	Aditi Sinha (Nephrology)
Neerja Gupta (Genetics)	Jeeva Sankar (Neonatology)
Kana Ram Jat (Pulmonology, Intensive Care, Tuberculosis and Rheumatology)	Jhuma Sankar

Scientists

Madhumita Roy Choudhary	Manju Saxena
Shivram Shastri (Contract)	Rashmi Shukla (Contract)

Other Staff

Savita Sapra: Clinical Psychologist	Pallavi Mishra Biochemist
Anuja Agarwala: Dietician	Sumita Gupta: Physiotherapist
D. Yadav: Medical Social Service Officer	

HIGHLIGHTS

Six new assistant professors joined the Department. The Department has been rated as the best paediatrics department in the country by the magazine, The Week, consecutively since 2007. The Department organized three public lecture events viz. i. Childhood Cancer, ii. Children with Disabilities and iii. Childhood Asthma. The Department conducted the following awareness and family interaction events: Mucopolysaccharidosis Day (May 2014), National Fragile X Awareness Day (July 2014), Autism Awareness programme (April 2014), Type 1 Diabetes Education program (May, 2014), Childhood Obesity Family Based Interaction Program (April, 2014) and Education program for parents with children with cystic fibrosis (October 2014), Rare Disease Day (February 2015) and World Kidney Day (March 2015).

The Department released a bilingual information booklet for parents on Autism, and a bilingual DVD with presentations, video and information on the subject; updated guidelines for diagnosis and management of Childhood Epilepsy which have been incorporated as National IAP Guidelines October 2014. Patient information booklets for neurological conditions in Hindi, English or bilingual uploaded on AIIMS website for free download.

Patient information material on childhood cancer, and a pediatric cancer helpline, were launched.

A 496 gram 23 weeks ultra preterm baby was discharged healthy from the NICU. This may be the lowest birthweight neonate to survive in India.

The Department continues to host two WHO Collaborating Centres, for Clinical Genetics and Newborn Care, and host ICMR's Advanced Centre for Newborn Health Research.

The Department played a pivotal role in creating WHO guidelines on care of preterm neonates and on simplified treatment of neonatal sepsis.

The 116E rotavirus vaccine, developed originally by the Department, was approved for introduction in the country's national immunization program.

EDUCATION

MD Program: 31 MD students are trained in the Department. There are regular teaching sessions every day morning along with bedside teaching by all the faculty members. The Department conducted in-house symposia on Communication skills and Monitoring of sick children for all residents.

DM program: Two programs in Neonatology and Pediatric Neurology are conducted by the Department. DM in Pediatric Nephrology and in Pediatric Pulmonology and Critical Care has been approved by the statutory bodies of the Institute.

Senior Residency Program: Specialty based senior residency program was strengthened and awards of excellence instituted.

PhD program: 22 scholars (including clinical pediatrics and epidemiology) are registered for PhD. An active teaching program including weekly Journal club, research methods and guest lectures are a part of the PhD teaching activity. English language education was introduced for all PhD scholars.

MBBS teaching: Departmental faculty is involved in bedside teaching of MBBS students during their posting in Pediatrics (OPD and wards) along with lectures and integrated seminars. The Department reintroduced faculty teaching at CRHSP Ballabgarh for 7th Semester students.

Nurses Teaching: Faculty is involved in teaching of BSc nursing as well as MSc (Pediatric Nursing) and training of nurses posted in Pediatric wards and Intensive care.

TRAINEES: A total of 30 short term or long term trainees were trained in various divisions of department. (Ped Endocrinology 3, Genetic 9, Child Psychology 2, Child Nephrology 6, Child Neurology 2, Pediatric Pulmonology 1 and Endocrinology 3, Neonatology 4).

Neonatology

1. Ms. Ola Aryoyewun Salimot Bisoye, Ms. Ofulue Martina Lydia, Ms. Mustapha Abiola from Nigeria attended training in April 2014.

Pediatrics

1. Dr. Madise Wobo AD from Nigeria attended training in April 2014
2. Mr. Husain Khaki from UK attended training from 16.04.14 to 02.05.14
3. Mr. Kartik Yadav from Rajasthan attended training from 24.07.14 to 08.08.14
4. Ms. Khushboo and Ms. Kanchan attend training from 07.10.14 to 06.01.15.
5. Mr. Muhammad Ali Zoubair Fokeerbux, Mr. Hulkoree Ackmez Ibni Mutalib, Mr. Ramputh Muhammad Saahir from Mauritius attended training from 04.11.2014 to 20.12.2014.
6. Ms. Tanvi Rishi from Kenya attended training from 24.11.2014 to 06.12.2014
7. Dr. Siah Kim from Australia attended training w.e.f 26.11.14 to 09.12.14.

Pediatric Endocrinology

1. Dr Ruchi Mishra, Specialist cum Assistant Professor, ESI PGIMSR Basai Darapur New Delhi, for 3 months from 15th Jan to 15th April, 2014
2. Dr Subhana Karki, Assistant Professor in Pediatrics, NAMS, Kanti Children Hospital, Kathmandu, Nepal for 3 months from 25th April to 24th July 2014
3. Dr Sapna Mittal, Senior Specialist and HOD, Deptt. of Pediatrics, ESI Hospital, Gurgaon, Haryana for 6 months from 1st June to 30th Nov, 2014

Genetics

1. Shelly Singh, Netaji Subhas Institute of Technology, Dwarka, New Delhi-110075, for 1 month (02.06.14 to 01.07.14) in Cytogenetics.
2. Stuti Relan, Sri Venkateswara College, Dhaula Kuan, New Delhi-110021, for 2 month ((02.06.14 to 22.07.14) in Molecular / Biochemical Lab.
3. Charuta Arvind Yadav, Gautam Buddha University, School of Biotechnology, Greater Noida, for 1 month (01.07.14 to 25.07.14) in Biochemical lab.
4. Ritu, University Institute of Engineering & Technology, Maharishi Dayanand University, Rohtak, Haryana 124001, for 2 months (20.06.14 to 01.08.14) in Cytogenetics
5. Moni, University Institute of Engineering & Technology, Maharishi Dayanand University, Rohtak, Haryana 124001, for 2 months (20.06.14 to 01.08.14) in Biochemical Lab.
6. Dr.Nipun Sharma, Indian Academy of Medical Genetics, Department of Genetics, SGPGIMS, Raebareli Road, Lucknow, Uttar Pradesh-226014, for 3 months (01.10.14 to 31.12.14) in Cytogenetics.
7. Dr.Hirak Das, Assam Medical College & Hospital, Dibrugarh-786002, for 1 month (02.01.15 to 30.01.15) in Molecular lab.
8. Bhaskar Jyoti Saikai, Assam Medical College & Hospital, Dibrugarh-786002, for 15 days (16.01.15 to 30.01.15) in Molecular Lab.
9. Pooja Shukla, Awadhesh Pratap Singh University (APS University), Rewa, Madhya Pradesh – 480003, for 6 months (02.01.15 to 30.06.15) in Molecular Lab.

Pediatric Neurology

1. Dr Bina Prajapati Manadhar (January 2014-December 2014) from Nepal
2. Dr Deepa Bhaskaran (22nd September 2014 -26th September 2014)

Pediatric Nephrology

Six fellows were trained in Pediatric Nephrology. Two fellowships each were supported by the International Pediatric Nephrology Association and the Indian Society of Pediatric Nephrology.

Pediatric Pulmonology

Dr Sapna Taneja, 1.4.2014 to 30.6.2014 from ESI Hospital Delhi

CMEs/Workshops/Symposia/National and International Conferences

A.K. Deorari

1. ONTOP Workshop on developing course contents for e-Learning for nurses and doctors. 29-30th June, 2014, AIIMS, New Delhi.
2. NIPI supported Workshop for field testing of 'Facility Based Newborn Nursing' module 'Normal', 'At-Risk' & 'Sick' newborn 12-14th September 2014, at AIIMS, New Delhi.
3. UNICEF supported Nursing Workshop alongwith Training of Doctors on use of STPs, 22nd to 25th September 2014, at Medical College, Raipur, Chattisgarh.
4. WHO-SEARO, UNICEF, NIPI supported workshop on launch of learning resource materials on newborn health, 11th December 2014, AIIMS, New Delhi.
5. Workshops on CPAP remotely lead by VC/Webex from AIIMS, New Delhi at Ludhiana 5th April in collaboration with Dayanand Medical College and Hospital; Delhi 10th August in collaboration with IAP East Delhi at Swami Dayanand Hospital; Shillong 8th June in collaboration with IAP Branch at Nazareth Hospital; Goa 13th September in collaboration with Goa Medical College.
6. Workshop on 'Neonatal Ventilation at Kathmandu, 27-29th December 2014 in collaboration with Nepal Pediatric Association Society.

Arvind Bagga

1. The *XII Asian Congress of Pediatric Nephrology* was organized by the Department of Pediatrics, All India Institute of Medical Sciences, New Delhi, India, on behalf of the Indian Society of Pediatric Nephrology and Asian Society of Pediatric Nephrology between 4 and 6 December 2014 at the Manekshaw Centre, Parade Road, New Delhi.
2. Two pre-Congress CMEs on '*Pediatric Transplantation*' and '*Critical Care Nephrology*' were organized on 4 December 2014 and preceded the main Congress. Each of the meetings was attended by 75-100 delegates.

S.K. Kabra and Rakesh Lodha

3. AIIMS Pediatric Pulmonology and Intensive Care Course Module 1: Pulmonary Function Test on 19-20 April 2014 at AIIMS (LT 1), New Delhi.
4. AIIMS Pediatric Pulmonology and Intensive Care Course Module II: Bronchoscopy on 11-12 Oct 2014 at AIIMS (LT 3), New Delhi.
5. AIIMS Pediatric Pulmonology and Intensive Care Course Module III: Mechanical ventilation on 14-15 Feb 2015 at AIIMS (LT 3), New Delhi
6. Education program for parents having children with Cystic fibrosis on 26.10.2014 at AIIMS (LT 3) New Delhi
7. AIIMS Childhood Tuberculosis Conference on 15-16 Nov 2014 at AIIMS, JLN Auditorium.
8. Departmental symposium on "Communication Skills" at LT3 AIIMS, on 9.11.2014
9. PEDICON preconference workshop "Respiratory Tract Infections Group Education Module" on 21.1.2015 at Kalawati Saran Children Hospital, New Delhi
10. RESPICON preconference workshop "Common office procedures in Pediatric Pulmonology" at Varanasi on 30.10.2014

Madhulika Kabra and Neerja Gupta

11. Rare Disease Day and MEDIGENCON CME on 28th February 2015 at AIIMS, New Delhi
12. Thematic group meeting on Newborn screening and management and prevention of Down syndrome 5-6 August 2014, New Delhi, India
13. Thematic group meeting on management and prevention of Thalassemia, 7-8 August 2014, New Delhi, India
14. WHO training on birth defects- Delhi model on 31.12.14 at AIIMS

Sheffali Gulati and Biswaroop Chakrabarty

15. Autism Awareness programme: Autism Awareness and way forward (Empowering the children with autism and their families) on 17th April 2014, AIIMS, New Delhi
16. Childhood Neurodevelopment Disorders Workshop in collaboration with GOI, UNICEF, UNDP and NIPI from 1st to 3rd December 2014, India Habitat Centre, New Delhi
17. Public lecture and panel discussion 'Children with disabilities-let's make their lives better' on 11.12.2014 at AIIMS, New Delhi

Vandana Jain

18. CME '**Endocrinology for Postgraduates in Pediatrics**', on 9th and 10th Aug, 2014 at AIIMS, New Delhi

Rachna Seth

19. National Training Workshop on Practical Pediatric Oncology (PHO chapter and Delhi IAP) 6.12.14 AIIMS, New Delhi
20. National workshop on Pediatric Hematology –Oncology(Pre conference workshop) Annual conference of Pediatrics, PEDICON21.1.15 AIIMS, New Delhi
21. Patient education program 12.05.15 22.11.14 AIIMS, New Delhi

22. Public lecture & Exhibition (Childhood Cancer) 14.2.15 AIIMS, New Delhi
 23. North India Pediatric Oncology Forum (NIPOF) 28.2.15 AIIMS, New Delhi

Ramesh Agarwal and M. Jeeva Sankar

24. Workshop on 'Research Methodology' for faculty from different medical colleges at Patna, Bihar on 4/12 2014 (Neocon 2014).

Lectures delivered

V.K. Paul: 12

Pankaj Hari: 11

Rakesh Lodha: 42

Sheffali Gulati: 32

Vandana Jain: 14

Kana Ram Jat: 10

Madhumita Roy Chaudhury: 2

Savita Sapra: 4

A.K. Deorari: 19

Aditi Sinha: 7

Madhulika Kabra: 25

Biswaroop Chakrabarty: 3

Rachna Seth: 7

M. Jeeva Sankar: 6

Rashmi Shukla: 3

Arvind Bagga: 20

S.K. Kabra: 37

Neerja Gupta: 19

Ramesh Agarwal: 7

Jhuma Sankar: 12

Dhaneshwar Yadav: 6

Oral papers/posters presented: 63

RESEARCH

Funded projects

Ongoing

1. Centre for Advanced Research in Newborn Health. Dr. Vinod K Paul & Dr Ashok Deorari. ICMR. 5 years (2010-15), Total funds sanctioned Rs 9.5 crores.
2. Translational Health research in Child Health: linking basic and clinical science departments in inter-institutional linkages; Glue Grant. Dr Vinod K Paul. DBT. 5 years 2010-15, Rs 4 Crore.
3. Randomized controlled trial to compare the efficacy and safety of mycophenolate mofetil versus levamisole in children with frequently relapsing or steroid dependent nephrotic syndrome. Arvind Bagga. Indian Council of Medical Research (ICMR). 3 years, 2012-2015, Rs 28,08,221.
4. Functional characterization and genetic basis of anti-complement factor H autoantibodies in hemolytic uremic syndrome. Arvind Bagga. Department of Biotechnology (DBT). 4 years, 2011-2015, Rs 108,33,018.
5. Serum soluble urokinase receptor as putative permeability factor in children with focal segmental glomerulosclerosis and steroid resistant nephrotic syndrome. Arvind Bagga. DBT. 3 years, 2012-2015, Rs 44,86,635.
6. Anti-factor H autoantibody associated hemolytic uremic syndrome. Arvind Bagga. Indo-French Centre for the Promotion of Advanced Research. 3 years, 2012-2015, Rs 40,67,280.
7. Research on nephrotic syndrome. Arvind Bagga. Trilateral Partnership in Research, UK India Education and Research Initiative. 2 years, 2013-2015.
8. Identification of correlates of disease severity in pediatric dengue patients in Delhi (N 1363). SK Kabra. DBT. 3 years, May 2012 to May 2015, Rs 4642172.
9. Why acute respiratory infections during infancy lead to chronic airway diseases during childhood: differential role of smaller airways and immune imbalance. SK Kabra. DBT. 3 years, March 2012 to August 2015, Rs 12438192
10. Hib Meningitis Sentinel Surveillance in North India (NI-1088). SK Kabra and S Bhatnagar. INCLIN. 3 years, 2011-2014, Rs 1,09,88,946.
11. Role of GeneXpert MTB/RIF assay in the diagnosis of pulmonary tuberculosis in children (I1830). SK Kabra. ICMR. 3 years, 2013-2016, Rs 6455379.

12. Biomarker discovery in asthma using an integrated –omics approach. (Site PI). Dr. Rakesh Lodha. CSIR, IGIB. 2009- 15. 2009- 15, Rs 2.1 crores.
13. Effects of malnutrition and HIV infection on pharmacokinetics of anti-tubercular drugs in children'. Dr. Rakesh Lodha. ICMR. 3 years, 2012-2015, Rs 48 lakhs.
14. Clinical application of array-based Comparative Genomic Hybridization (array CGH) in the genetic evaluation of stillbirths. Madhulika Kabra. DBT. 3 years, 2013-2015, Rs 85 lakhs.
15. Identification of Human Chromosome 21-Derived miRNA in Maternal Circulation for Non Invasive Prenatal Diagnosis of Down Syndrome. Madhulika Kabra. DBT. 3 years. 2013-2015, Rs 57 Lakhs.
16. Molecular Genetic Studies in Indian patients with Tuberos Sclerosis ICMR March 2013 -2015. Madhumita Roychowdhury (PI), Madhulika Kabra (Co-PI). ICMR. 3 years, 2013-2015, Rs 50 Lakhs.
17. Multi Centric Collaborative Study of The Clinical Biochemical and Molecular Characterization Of Lysosomal Storage Disorders In India: The Initiative For Research in Lysosomal Storage Disorders. Madhulika Kabra (PI), Neerja Gupta (Co-PI). ICMR. 3 years, 2015-2017, Rs 30 lakhs.
18. A Novel feasibility study of newborn screening for treatable disorders and epidemiological data generation for inborn metabolic errors in Delhi state. Madhulika Kabra (PI), Neerja Gupta (Co-I). DST. 2 years, 2014-2016.
19. Identifying the Spectrum of Mutations in Indian Ataxia telangiectasia Patients. Rashmi Shukla. Department of Biotechnology. 3 years, 2014-2017, Rs 3487400.
20. Effectiveness of socio-culturally sensitive indigenously developed module administered by parents as compared to professionals for Indian children with autism spectrum disorder aged 18 months to 6 years. Dr. Savita Sapra. ICMR. 3 Years, 2014-2017, Rs. 2696492/-.
21. Blood heavy metal levels and quantitative EEG correlates in children with autism. Dr Sheffali Gulati. ICMR. 3 yrs, 2014-2017, 4 years, Rs 49,04,232.
22. Randomized Placebo Controlled Trial of Valproate and levocarnitine in Children with Spinal Muscular Atrophy aged 2-15 years. Dr Sheffali Gulati. Institute Research Grant. 3 years, 2012-2015, Rs 10,00,000.
23. 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 Indian children 2 to 24 months of age (ICMR funded project, technically approved) . Dr Sheffali Gulati. ICMR. 2 yrs. 2015-2018, Rs 31,56,881.
24. Role of gain in fat mass in early infancy on programming of adiposity and biochemical markers associated with cardiometabolic risk. Vandana Jain. DBT. 3 yrs. 2012-15, Rs 69,87,324.
25. Influence of genetic polymorphisms, clinical and biochemical parameters in determining susceptibility to nonalcoholic fatty liver disease in Indian overweight adolescents. Vandana Jain. ICMR. 3 yrs. 2012-15. Rs 49,00,000.
26. To determine the role of procalcitonin (PCT) as a diagnostic and prognostic biomarker for febrile neutropenic episodes in children undergoing treatment for childhood cancers. Rachna Seth. AIIMS. 2 years, 2014-2016. Rs 3,00,000/-
27. Chemo to Cure (C to C): A study of cancer Survivorship. Rachna Seth. Jiv Daya Foundation, Dallas, USA. 6 years. 2011-2017, Rs 20,00,000/-
28. Molecular Characterization For the Prediction Of Relapse Risk in Indian Acute Lymphoblastic Leukemia Patients. Rachna Seth. ICMR. 3 years, 2014-2017, Fellowship for Research Associate.
29. Molecular alterations in childhood acute lymphoblastic leukemia: Role of *CRLF2* rearrangements and Janus kinase (JAK 1 & JAK2) mutations. Rachna Seth. ICMR, 3 years, 2015-2018. Stipend for Senior Research Associate
30. To determine the profile, evaluate the predictors of serious bacterial infections in febrile neutropenic episodes in pediatric oncology patient aged 1-14 years at our centre. Rachna Seth. CSIR project. Pool officer Dr Amitabh Singh. 3 years, 2015-2018, Stipend for Senior Research Associate.
31. Improving the quality of childbirth and neonatal care in Primary Health Centres in two districts in Haryana, India. Dr Ramesh Agarwal. WHO, Geneva. 2 years. September 2014 to September, 2016, USD 25000.

Completed

1. To update the Essential Newborn Nursing for Small Hospitals Learner's Guide, 2nd Edition". Dr. A.K. Deorari. WHO. 1st July to 31st December 2014. 2014, Rs 5,57,500/-.
2. Antiproteinuric effect of oral calcitriol in chronic proteinuric nephropathies: a randomized controlled trial. Pankaj Hari. ICMR. 4 years 2010-2014, Rs 29,10,592.
3. Effect of atorvastatin on hyperlipidemia and progression of carotid intima media thickness in steroid resistant nephrotic syndrome: a randomized controlled trial. Pankaj Hari. Indian Council of Medical Research (ICMR). 3 years. 2011-2014, Rs 19,40,142.
4. Role of zinc supplementation in children with cystic fibrosis: randomized controlled trial. SK Kabra. ICMR. 2 years. 2012-2014, Rs 200000.
5. A systematic review of emergency fluid management of critically ill children. Rakesh Lodha. WHO. 9 month. 2014, US\$ 10600.
6. A Systematic review on the management of clinical severe infections and critical illness through simpler antibiotic regimens delivered at outpatient and/or community level where referral was not possible. Rakesh Lodha. WHO. 4 month. 2014, Rs. 451049.
7. A systematic review and provide GRADE profiles if appropriate regarding evidence on emergency clinical signs and markers of severe circulatory impairment in critically ill children. Rakesh Lodha. WHO. 5 month. 2014, US\$ 9600.
8. To study the effect of highly active antiretroviral therapy on B cell sub-populations in HIV infected children. Rakesh Lodha. ICMR. 3 years. 2011-14, Rs 39 Lakhs.
9. GHR gene mutations in children with Idiopathic short stature. Vandana Jain. AIIMS. 3 yrs. 2012-15, Rs 5, 00,000.
10. Molecular alterations in childhood acute lymphoblastic leukemia: Role of CRLF2 rearrangements: A pilot study. R Rachna Seth. AIIMS. 1 year. 2013-2014, Rs 5, 00,000/-.
11. To conduct a systematic review and provide GRADE profiles regarding evidence on management of sick young infants when referral is not accepted by the families. Dr V K Paul. WHO, Geneva. 3 months. 16 APR-2014 to 15-JUN-2014, Rs 4, 79,120.
12. Conduct a set of Systematic Reviews on care of the for the preterm infant. Ramesh Agarwal. WHO, Geneva. 1 year. Feb 2013-Feb 2014, Rs 14, 44,800.

Departmental projects

Ongoing

1. Efficacy of daily supplementation of 800/IU Vitamin D on Vitamin D status at six months of age in term healthy infants
2. Randomized open labeled controlled trial to compare the efficacy and safety of mycophenolate mofetil and tacrolimus in maintaining remission in patients with steroid resistant nephrotic syndrome.
3. Open label, randomized, controlled study trial to compare the efficacy of daily therapy with low dose prednisolone versus standard therapy on alternate days in patients with frequently relapsing steroid dependent nephrotic syndrome
4. Gonadal function in children with nephrotic syndrome treated with oral cyclophosphamide
5. Role of soluble urokinase plasminogen activator receptor (suPAR) and urinary CD80 in predicting the course of disease and histology in patients with nephrotic syndrome
6. Effect of rituximab on lymphocyte subsets and urinary CD80 excretion in patients with steroid dependent nephrotic syndrome
7. Functional characterization of anti-factor H autoantibodies in patients with hemolytic uremic syndrome
8. Validation of the Renal Angina Index to improve the prediction of acute kidney injury in critically ill children

9. A study of the spectrum of vesicoureteral reflux in Indian children and its correlation with grade of reflux, renal hypoplasia and clinical presentation
10. Pharmacokinetics of antitubercular medications in children (PhD)
11. Cloning and expression of Chickengunia Virus genes and evaluation of their role in chickengunia pathogenesis in children and adults (PhD)
12. To study the effect of highly active antiretroviral therapy on B cell sub-populations and their co-stimulatory receptors in HIV-1 infected children (PhD)
13. Effects of exercise intervention program on bone mineral accretion in children and adolescents with Cystic fibrosis. (PhD Thesis)
14. Ventilator associated pneumonia in Pediatric intensive care unit: incidence, risk factors and etiological agents. (MD thesis)
15. Etiology of pulmonary exacerbations in children with cystic fibrosis. (MD)
16. Fluid overload related morbidity in critically ill mechanically ventilated children (MD)
17. Prevalence of aquagenic wrinkling of skin in children with cystic fibrosis.
18. Ventilator associated pneumonia in Pediatric intensive care unit: incidence, risk factors and etiological agents
19. Metabolic Abnormalities in Children with Asthma
20. Association of Fluid Overload with Outcomes in Critically Ill Mechanically Ventilated Children
21. Molecular Genetic studies in Indian families with Autosomal recessive non syndromic hearing loss
22. Mutation analysis and association of biomarkers in patients with mucopolysaccharidosis type I, II & III
23. Molecular genetic studies in Indian patients with Ectodermal dysplasia (ICMR fellowship Shweta Kushmakar Guide Madhulika Kabra)-Ongoing
24. Mutation spectrum in TSC gene in Indian patients with tuberous sclerosis(PhD thesis – Shruthi Sudershan)
25. To study the mutation spectrum & its correlation with histopathology, neuroimaging & biochemical metabolites in Indian patients with mitochondrial disorders”-(PhD Thesis-Anushree Mishra)
26. Molecular And Biochemical Characterization of Hepatic Glycogenoses Type I and III (PhD thesis Ms Shama Parveen)
27. Comparative study of virtual and conventional autopsy in the phenotypic characterization of still births. (MD thesis –Dr Shruti)
28. A study of subtelomeric imbalances in children with idiopathic mental retardation using real time PCR
29. A study of Genomic rearrangements in Indian Children with Idiopathic MR using whole genome CGH array
30. Mutation analysis and association of biomarkers in patients with Mucopolysaccharidosis type I, II and III
31. Molecular genetic studies in Indian families with autosomal recessive Nonsyndromic hearing loss
32. Utility of pediatric sleep questionnaire in the diagnosis of sleep disorders in children with Down syndrome
33. Comparison of radiological outcome of 7 days versus 28 days albendazole therapy along with steroid in patients with parenchymal neurocysticercosis with lesion load <5: a randomized controlled trial
34. Effect on serum vitamin D levels and bone mineral density in children and adolescents aged 3 to 14 years with newly diagnosed epilepsy on 6 months of Valproate monotherapy- A Prospective Study
35. Development and Validation of AIIMS Modified INCLIN Diagnostic Instruments of epilepsy and neuromotor Impairments in Children aged 0-18 years.
36. Comparison of Blood 25 hydroxy Vitamin D and Other Micronutrient levels between Children with Autism Spectrum Disorder with Typically Developing Children: Analytical Cross-sectional Study
37. Electroencephalographic Abnormalities in Children with Single Calcified Neurocysticercosis Lesion: A Cross sectional Study
38. Indian adaptation and validation of Ages and Stages Questionnaire 3 (ASQ3) as a neurodevelopmental screening tool in infants and children aged 1 month to 2 years “at risk” for developmental delay as compared to standard reference test Developmental Assessment Scale for Indian Infants (DASII)

39. Providing insights into the mechanism of modified Constraint Induced Movement Therapy in children with hemiparetic cerebral palsy – a Functional Magnetic Resonance Imaging based study
40. Pulmonary function test in dystrophinopathy patients aged 5-18 years old on oral steroid therapy for atleast for 6 months
41. AIIMS modified INDT-ASD tool for Autism spectrum disorder based on DSM 5 criteria: development and validation
42. Comparison of early versus late EEG in detection of epileptiform abnormalities among children with first unprovoked seizure: A longitudinal study.
43. AIIMS modified INDT-ADHD tool for ADHD based on DSM 5 criteria: development and validation
44. Effect of total body fat and its regional distribution on bone health in adolescents
45. Exploring the genetic basis of idiopathic short stature in children: Prevalence of SHOX, GHR and IGFALS mutations
46. NOTCH1 in childhood acute lymphoblastic leukemia: Mutation profile, Gene expression, role of leukemogenesis and correlation with clinical outcome
47. Correlation of IKZF-1 gene alterations and cytokine Receptor-like Factor 2 gene expression as predictive indicators of clinical outcome in Indian children with Acute Lymphoblastic Leukemia (ALL).
48. Clinicopathological Analysis Of Malignant Mediastinal Masses
49. To determine the prevailing organism profile and antimicrobial sensitivity in febrile neutropenic episodes
50. To evaluate the outcome of children with recurrent LCH using prednisone, Cytosine arabinoside and VCR
51. Prevalence Of Tuberculosis Infection In Newly Diagnosed Children Of Acute Leukemia
52. Validation of PIM3 (Pediatric Index of Mortality-3) score in a tertiary care pediatric intensive care unit
53. Incidence of hypertension in critically ill children
54. Efficacy and safety of vitamin D supplementation in asthmatic children: a randomized controlled trial (ESDAC trial)
55. Effect of initiation of complementary food at 4 month compared to 6 months corrected age on growth of preterm infants less than 34 weeks of gestation: a multisite, randomized trial
56. Efficacy of daily supplementation of 800/IU Vitamin D on Vitamin D status at six months of age in term healthy infants
57. Urinary Metabolomic profile of healthy term neonates at postnatal age 24-72 hours
58. Do very preterm infants (28 to 32 wk gestation) achieve developmental milestones at a later age than the reference norms even after correction for prematurity? – A prospective observational study
59. Diagnostic Performance of the Bayley Infant Neurological Screener (BINS) as a Neurodevelopmental Screening Tool for High Risk Infants in India
60. Diagnostic accuracy of different types of oto-acoustic emissions (OAEs)
61. Incidence and risk factors for rehospitalisation of preterm neonates (<33 weeks' gestation) discharged from a tertiary care newborn unit in India within 4 weeks of discharge
62. Evaluation of current status and cumulative missed opportunities of Kangaroo Mother Care (KMC) practice in mother infant dyads in very low birth weight infants admitted in a level III neonatal unit
63. Colonization pattern of skin in very low birth weight (VLBW) infants born by different methods of delivery - A prospective observational study
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71. Colonization pattern of skin in very low birth weight (VLBW) infants born by different methods of delivery – A prospective observational study

Departmental projects

Completed

1. AIIMS-WHO CC STP Apps for managing common newborn conditions – Education of impact among SNCU Doctors.
2. Comparison of profile of DNA damage in lymphocyte of neonate with hyperbilirubinemia receiving high vs low irradiance LED phototherapy.
3. Randomized open labeled controlled trial to compare the efficacy and safety of mycophenolate mofetil and tacrolimus in maintaining remission in patients with steroid resistant nephrotic syndrome
4. Effect of cholecalciferol supplementation on FGF23 levels in vitamin D deficient children with CKD
5. To study the association between the beta 2 adrenergic receptor gene polymorphism and bronchodilator response to inhaled salbutamol in Indian children between 5-15 years of age with mild to moderate acute exacerbation of asthma. (MD thesis)
6. Prevalence of peripheral neuropathy in patients aged 3 to 18 years with cystic fibrosis on vit E (twice the RDA) for 6 months. (DM Thesis).
7. Role of FeNO in identification of uncontrolled asthma in children between age group (MD)
8. Serum vitamin D levels and its association with level of control of childhood asthma
9. A study to compare the oscillometric non-invasive BP and invasive arterial BP measurements in critically ill children
10. A study of Genomic rearrangements in Indian Children with Idiopathic MR using whole genome CGH array
11. To study the mutation profile of Indian patients with common organic acidurias (ICMR fellowship Pawan K. Singh, Guide Madhulika Kabra)-Ongoing
12. Stress, Quality Of Life and Coping Responses of Mothers Having Children with Down Syndrome (MD thesis Dr Akai)
13. Role of skin biopsy in childhood muscular dystrophies
14. Efficacy of Modified Atkins diet versus Ketogenic diet in children with refractory epilepsy aged 1 to 8 years age- A randomized controlled trial
15. Telephone based follow up of children with West syndrome and Lennox Gestaut syndrome aged 4 months to 7 years : How accurate it is to identify critical events requiring face to face consultation?
16. Prevalence of electrophysiologically defined peripheral neuropathy among post renal transplant children aged 6-18 years.
17. Quality of life among children with dystrophinopathy aged 6-18 years
18. Cardiovascular autonomic dysfunction in children aged 2-18 years with Rett Syndrome; a descriptive study.
19. A study of serum level of trace elements in patients with childhood epilepsy.
20. A study of ultrasonography of skeletal muscle in the assessment of hypotonic infants and children upto 12 years of age

21. Prevalence of electrophysiologically diagnosed peripheral neuropathy in children aged 5 to 14 years on phenytoin monotherapy for more than 6 months: A cross sectional study
22. Clinical spectrum of psychogenic non - epileptic events in children (6-16 years)
23. Clinical and biochemical characterization of short stature in 4 to 16 year old children with special attention to idiopathic short stature
24. Prevalence of Invasive Fungal Infections in Children with Febrile Neutropenia treated for Acute Leukemia
25. Pharyngeal pressure in preterm infants receiving nasal continuous positive airway pressure
26. Effect of stepwise interventions aimed at improving hand hygiene compliance among health care providers in a level III neonatal intensive care unit: Before and after study
27. Effect of daily physical activity in preterm neonates less than 35 weeks gestation on salivary cortisol and clinical markers of stress
28. Effect of daily physical activity on bone strength as measured by quantitative ultrasound in less than 35 weeks gestation preterm neonates – A randomized trial
29. AIIMS-WHO-CC-STP apps for managing common newborn conditions: Evaluation of impact on knowledge and skills among special newborn care unit doctors
30. Comparison of the profile of DNA damage in lymphocytes of neonates with hyperbilirubinemia receiving high versus low irradiance using light emitting diode phototherapy
31. Vitamin D status at three months of age in term healthy infants on daily supplementation of 400 IU vitamin D
32. Intra-Amniotic instillation of surfactant for prophylaxis of neonatal respiratory distress syndrome in preterm birth
33. Pharyngeal pressure in preterm infants receiving nasal continuous positive airway pressure
34. Effect of stepwise interventions aimed at improving hand hygiene compliance among health care providers in a level III neonatal intensive care unit: Before and after study
35. Effect of daily physical activity in preterm neonates less than 35 weeks gestation on salivary cortisol and clinical markers of stress
36. Effect of daily physical activity on bone strength as measured by quantitative ultrasound in less than 35 weeks gestation preterm neonates – A randomized trial
37. AIIMS-WHO-CC-STP apps for managing common newborn conditions: Evaluation of impact on knowledge and skills among special newborn care unit doctors
38. Comparison of the profile of DNA damage in lymphocytes of neonates with hyperbilirubinemia receiving high versus low irradiance using light emitting diode phototherapy
39. Vitamin D status at three months of age in term healthy infants on daily supplementation of 400 IU vitamin D

Collaborative projects

Ongoing

1. Evaluation of the Role of Retinal Renin Angiotensin System (RAS) in the Animal Model of Retinopathy of Prematurity (ROP). (RPC Centre, AIIMS).
2. Functional characterization and genetic basis of anti-complement factor H autoantibodies in hemolytic uremic syndrome. (National Institute of Immunology, New Delhi)
3. Anti-factor H autoantibody associated hemolytic uremic syndrome. (Laboratoire d'Immunologie, Hôpital Europe' en Georges Pompidou, INSERM UMRS 872, Paris, France)
4. Research on nephrotic syndrome. (University of Michigan, USA, University of Bristol, USA)
5. Development of taqman based real time quantitative polymerase chain reaction assay for detection of pneumocystis carinii/ jirovecii pneumonia. (Microbiology)
6. Immunological characterization of HIV 1 infection in children in India. (Department of Biochemistry)
7. To study prevalence of uveitis in juvenile rheumatoid arthritis. (Department of Ophthalmology)

8. A randomized controlled trial to compare the effectiveness of deep inhalation over tidal breathing during metered dose inhaler use in pediatric asthmatics. (College of Nursing)
9. Expediting the diagnosis of intrathoracic tuberculosis and drug resistant tuberculosis. (Microbiology)
10. A study on alternate antimicrobial agents against typhoidal salmonellae. (Microbiology)
11. Characterization of genetic diversity and neutralization antibody response in HIV-1 infected Indian Children. (Biochemistry)
12. Evolution of the HIV-1 clade C envelope in chronically infected Indian pediatric patients. (Biochemistry)
13. Immune network in the pathogenesis of pediatric HIV 1 infection. (Biochemistry)
14. Clinical application of array-based Comparative Genomic Hybridization (array CGH) in the genetic evaluation of stillbirths DBT 2013-2015 –Approximately 85 Lacs (ongoing). (Division of Genetics, Department of Pediatrics, MAMC, New Delhi)
15. Randomized Controlled Trial of early vs late surgery in childhood intractable epilepsy patients in India. (Department of Neurology)
16. Pharmacokinetic and pharmacodynamic interaction of ayurvedic medication with antiepileptic drugs: an experimental and clinical study. (Department of Pharmacology)
17. Evaluation of reflexology as an adjunctive therapy in children with spastic cerebral palsy. (Department of Biophysics)
18. Evaluation of reflexology as an adjunctive therapy in children with intractable epilepsy including west syndrome. (Department of Biophysics)
19. Efficacy, safety and tolerability of Modified Atkins Diet in Adolescents and Adults with Drug Resistance Epilepsy: A Randomized Controlled Trial". (Department of Neurology)
20. Effectiveness of structured teaching program on first aid measures for convulsion in improving the Knowledge of caregivers. (College of Nursing)
21. Comparative proteomic profiling of PBMC isolated from FRDA patients and that in presence of different frataxin up-regulating therapeutics. (Department of Biochemistry)
22. Vitamin D supplementation in patients with congenital ichthyosis. (Dermatology)
23. ICMR Young Diabetics registry. (Endocrinology and Metabolism)
24. Developing a long term partnership for translational health research in child health. (Department of Pediatrics ,lab oncology, THSTI (Pediatric Biology Centre) and IGIB)
25. Evaluation of safety and efficacy of multimodal treatment modalities in advanced retinoblastoma. (Department of Ophthalmology)
26. The role of Notch synergies in pediatric T-ALLs. (THSTI)
27. Panel of markers for febrile neutropenia in Pediatrics oncology patients. (Department of microbiology)
28. To determine the role of NOTCh as a prognostic indicator in T- lineage acute lymphoblastic leukemia. (Department of Lab Oncology)
29. Invasive aspergillosis in immune suppressed children: Diagnosis and prognosis. (Department of Microbiology)
30. Outcome of advanced retinoblastoma (extraocular disease). (Department of Ophthalmology)
31. Evaluation of the role of PET CT to predict response to chemotherapy in childhood Hodgkin lymphoma. (Radiodiagnosis, Nuclear medicine)

Completed

1. Diagnosis of symptomatic CMV infection in neonates. (Microbiology/Virology, AIIMS)
2. Stem cell in cord as a predictor for ROP in pre terms. (R.P. Centre, AIIMS)
3. A study to find out the prevalence of depression in mothers of children with autism spectrum disorders. (College of Nursing)
4. To study the Quality of life in children with Cerebral palsy and their parents. (College of Nursing)

5. Evaluation of frequency of polymorphism affecting lead and mercury toxicity among children with cerebral palsy. (Department of Pharmacology)
6. Health related quality of life in children with epilepsy; child and parental perceptions, knowledge and attitudes. (College of Nursing)
7. To develop and characterize Duchenne Muscular Dystrophy disease specific induced pluripotent stem cells from adult cells. (Stem cell facility, ORBO)
8. Ocular manifestations in children with HIV infection. (RP center)
9. ICMR Childhood Obesity Task Force. (INCLIN, India, Department of Endocrinology and Metabolism)
10. Psychopathology and body shape concerns in overweight and obese children. (Department of Psychiatry)

PUBLICATIONS

Journals: 127

Abstracts: 26

Chapters in Books: 30

Books: 14

PATIENT CARE

Outpatient Services

Department of Paediatrics provides general OPD services daily in Paediatrics OPD. Over 1 lakh outpatient consultations took place in this year. There are 15 superspeciality clinics run by the Department.

Name of Service	New Cases	Old Cases	Total Attendance
Paediatric General OPD	34528	53811	88339
Pediatric Neurology Clinic	904	2030	2934
Paediatric Myopathy Clinic	400	1200	1600
Pediatric Gastroenterology Hepatology and Nutrition	841	1966	2807
Paediatric Well Baby Clinic	573	50	623
Paediatric High Risk Neonatology Clinic	301	1839	2140
Pediatric Nephrology Clinic	554	4362	4916
Paediatric Chest Clinic	555	5580	6135
Paediatric Tuberculosis Clinic	300	2139	2439
Paediatric Rheumatology Clinic	276	2148	4424
Paediatric Genetics and Birth Defects Clinic	1396+676(2072)	2984+312(3296)	5368
Paediatric Oncology Clinic	365	2600	2965
Pediatric Cancer Survivors' Clinic	278	2200	2478
Pediatric Endocrine and Metabolism Clinic	560	1510	2070
Paediatric Development Clinic	724	426	961
Neurocysticercosis clinic	298	1837	2135
Autism Clinic	145	355	500
Grand Total	43674	87349	1,31023

In addition, Cystic fibrosis and Paediatric HIV services were provided in Paediatric Chest Clinic.

Kangaroo Mother Care unit, 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 2014-15:

Social services provided by MSSO of M S W unit of Department of Pediatrics

Activities	Number of patients benefited in approximation
• Information and guidance given to patients.	3610
• Counselling and psychotherapy.	2000
• Issuing railway concessions.	1100
• Helping in having accommodation.	260
• Exemption of charges of various investigations.	2700
• Mobilization of financial assistance to poor patient.	700
• Rehabilitation of unknown babies of unwed mother.	06
• Supervision of social work trainees.	04
• Miscellaneous needs of poor patient e.g. arranging cremation, deportation of dead bodies to their native places.	5

INDOOR SERVICES

- Indoor services include admission facilities in general wards, day care facility, neonatal units (NICUs A and B), Kangaroo Mother Care unit and Pediatric 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 program 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	13823
Long admissions in Paediatric wards:	1969
Admission in day care facility:	11854
Patient admitted in PICU:	354
Admissions in NICU A + B	858

LABORATORY SERVICES

Various laboratories of the Department provide over 50 unique diagnostic tests - many of them for rare disorders not readily available in the country.

Central Laboratory:

Endomysium Antibody [EMA]	1312	Tissue transglutaminase [tTg Elisa]	814
Nitro Blue tetrazolium [NBT]	90		

Dietetics

1) Total number of outdoor patients referred for Nutrition prescriptions	5945
New Cases	4319
Old cases	1777
GRAND TOTAL	6096
2) Indoor detailed/specialized counseling for patients on specific medical nutrition therapy (C5, D5, AB5, Private wards, consultations from periphery)	1962

Endocrinology

HbA1c	500	Urine Micro albumin	200
Growth Hormone Elisa	200	17-OH Progrestrone Elisa	200
Growth Hormone	600	25 Hydroxyvitamin D	200
PTH	100	Free T3	100
Free T4	100	Cortisol	400
Insulin	200		

Gastroenterology

Upper gastrointestinal endoscopy	1022	Colonoscopy	39
Liver biopsy	7	Anti-endomyseal antibody	1120
Anti-tissue transglutaminase by ELISA	856	Anti-tissue transglutaminase by Biocard	456

Genetics**Molecular Genetics Lab**

1. Beta Thalassemia (â Thal) mutation analysis carried out in 357 families
2. Prenatal diagnosis for â Thal offered to 94 families
3. XmnI polymorphism carried out in 5 families
4. Spinal Muscular atrophy (SMA) mutation analysis carried out in 172 cases
5. Prenatal diagnosis for SMA offered to 25 families
6. Albinism mutation analysis carried out in 4 cases
7. Duchene Muscular dystrophy (DMD) mutation analysis carried out in 476 families
8. Prenatal diagnosis for DMD offered to 29 families
9. Hemophilia A Linkage analysis carried out in 21 families
10. Prenatal diagnosis for Hemophilia A offered to 3 families
11. Hemophilia B Linkage analysis carried out in 2 families
12. Fragile X screening carried out in 156 families
13. Prenatal diagnosis for Fragile X offered to 2 families
14. Cystic fibrosis molecular analysis carried out in 87 cases
15. Prenatal diagnosis for Cystic fibrosis offered to 6 families
16. Achondroplasia mutation analysis carried out in 15 cases
17. Prenatal diagnosis for achondroplasia offered to 1 family
18. Hypochondroplasia mutation analysis carried out in 6 cases
19. Non-syndromic hearing loss (Connexin 26) screening carried out in 27 cases

Tests carried out on Research basis:

1. Glutaric acidemia type 1 mutation analysis carried out in 10 families
2. Methylmalonic Acidemia (MMA) mutation analysis carried out in 4 families
3. Biotinidase deficiency mutation analysis carried out in 2 families
4. Screening for Intellectual disability carried out in 92 cases
5. Screening for small micro-deletion syndromes carried out in 102 cases
6. Prenatal diagnosis for small micro-deletion syndromes offered to 2 families
7. Megalencephalic leukoencephalopathy (MLC) mutation analysis carried out in 5 cases
8. Prenatal diagnosis for MLC offered to 3 families
9. Gaucher syndrome mutation analysis carried out in 29 cases
10. Prenatal diagnosis for Gaucher syndrome offered to 3 families

11. Congenital adrenal hyperplasia (CAH) mutation analysis carried out in 20 families
12. Prenatal diagnosis for CAH offered to 4 families
13. Metachromatic leukodystrophy (MLD) mutation analysis carried out in 8 families
14. Prenatal diagnosis for MLD offered to 1 family
15. Mucopolysaccharidoses (MPS) I patients recruited: 12
16. Mucopolysaccharidoses (MPS) II patients recruited: 15
17. Mucopolysaccharidoses (MPS) III patients recruited: 3
18. Prenatal diagnosis for MPS I offered to 1 family
19. Tuberous Sclerosis (TSC) patients recruited: 20
20. Prenatal diagnosis for TSC offered to 2 families
21. Mitochondrial disorder patients recruited: 21
22. 16. Glycogen storage disease (GSD) I patients recruited: 22
23. Glycogen storage disease (GSD) III patients recruited: 18
24. Prenatal diagnosis for GSD I offered to 1 family
25. Prenatal diagnosis for GSD III offered to 1 family
26. Common deletion (31 Kb in GALC gene) for Krabbe disease in 3 families

Other tests

S.No.		Disorder	No. of Pts.
1	Triple Marker	Antenatal screening	739
	MSAFP alone		8
	â hCG alone		6
	Dual Marker test		448
2	TLC for disorders of amino acid metabolism	Metabolic screening	
	A Urine		102
	B Plasma		NIL
	C Serum		NIL
3	Disorder of Mucopoly saccharidosis (Urine Spot test)		35
4	Homocysteinuria test		42
5	Reducing Substances in urine		186
6	DNPH		135
7	FeCl ₃		126
8	Urine Porphyrin		55
9	Oligosaccharides		74
10	Blood Ammonia		887
11	GAGS		31

Biochemical Laboratory

Enzyme assays for Inborn of Metabolism:

Total no. patients for enzyme assays: 657

No. of patients with single enzyme assays: 266

with multiple enzyme assays: 391

1	Arylsulfate A	Met Metachromatic- leukodystrophy	55
2	β – Glucosidase	Gaucher Disease	81
3	α - Iduronidase	Hurler Syndrome (MPS-I)	42
4	Galactose-6- Sulphate Sulphatase	Morquio A (MPS IVA)	3
5	Gangliosidosis	GM1 Gangliosidosis and Morquio B(MPS IV B) (MP)	36
6	Arylsulphatase-B	MPS-VI	11
7	α - Glucuronidase	Maroteaux- Lamy Syndrome (MPS VII)	9
8	Biotinidase		99
9	GALT	Galactosemia	16
10	Hexosaminidase A	Tay-Sachs	53
11	Plasma Hex-A	Mucopolipidosis	11
12	Plasma – ASA	Mucopolipidosis	10
13	Chitotriosidase (Plasma)		93
14	α -Galactocerebrosidase (Krabbes)	Krabbes	45
15	Palmitoyl-protein-thioesterase (INCL)	INCL	39
16	Sphingo myelinase	Neimenn pick disease	65
17	CVS(NIH)	Non- immune Hydrops	12
18	CVS(ASA)		4
19	CVS(GM1)		4
20	CVS(MPS-I)		2
21	CVS(Hex-A)		2
22	CVS(NPD)		1
23	CVS(MPS-VI)		1

Cytogenetics Lab

S.No.	Test	Number of Patients
1.	Amniotic Fluid Culture	338
2.	Chorionic Villi Culture	24
3	Peripheral Blood Culture	529
4	Cord Blood Culture	36
5.	QF-PCR	222

Specialised psychology support

D.Q. / I.Q. assessment 1093

1. Behavioral Problems

Temper Tantrums	148	Bed wetting	47
Aggressive behavior	45	Abusive behavior	7
Hyperactivity	76	Habit disorders	3
Conduct disorders	24		

2.	Autism		200
3.	Attention Deficit Hyperactivity Disorder	30	
4.	Pseudo seizures, Conversion reactions	142	
5.	Functional problems		
	Headache	132	Vomiting 34
	Abdominal Pain	120	Chest Pain 25
	Giddiness	10	Breathlessness 59
	Pseudo hearing loss	2	Hyperventilation 41
6.	Learning Disability	66	
7.	Ward Consultations	55-60	
8.	Referrals from other hospitals and department	29	

Nephrology

Special tests and procedures

Hemodialysis		1257
Acute peritoneal dialysis (including automated peritoneal dialysis)		134
Continuous ambulatory peritoneal dialysis		39
Plasmapheresis sessions		495
Continuous renal replacement therapy		12
Temporary hemodialysis catheter placement (internal jugular, femoral)		201
Renal biopsies		126
Renal transplantation		8
ELISA for complement factor H		115
ELISA for antibodies to complement factor H		485

Neurology

EPS lab		
NCV	460	EMG 202
RNST	25	EEG 2827
Routine	1812	Ambulatory 744
Video EEG	271	Muscle biopsies 165
Skin biopsies	18	Nerve biopsy 7
Arterial lactate	327	CSF lactate: 196
Forearm ischemic test	7	Neostigmine challenge test 11
Hand held dynamometer	54	Oto-acoustic emission testing 11

Oncology

<i>Bone Marrow & CSF examination</i>	545	Lymph node aspirations	60
Trucut biopsies	100	Skin biopsies	5
Flowcytometry is done for patients of acute leukemia	100	Karyotyping and molecular studies for acute leukemia is available	70
MRD estimation for acute lymphoblastic leukemia	70	Hemogram facility via 5 part analyzer	250

Pulmonology

Spirometry	3657	Impulse oscillometry	3002
Infant PFTs	463	Bronchoscopies	256
Sweat test			624

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor V.K. Paul was elected as a Fellow of the National Academy of Sciences (FNASc); is the chairman of the Technical Resource Group on Child Health and a co-chair of the Neonatal Services Action Group of the Ministry of Health and Family Welfare (MoHFW). He is a member of the following committees of the MoHFW: National Technical Advisory Group on Immunization (NTAGI), Central Supervisory Board (PC&PNDT Act), committee on Implementation Research, committee on MDG 4, New Drug Advisory Committee (NDAC) on vaccines, CDSCO, DCGI. He is a member of the core group on National Nutrition Mission and of the National Shadow Codex Committee (Department of Women and Child Development). He made pivotal contribution to the India Newborn Action Plan launched in September 2015 as a co-chair of the Commission on Health, Himachal Pradesh, Dr Paul is engaged in reform of health services in that state. He is the chairman of the committee on Child Health Strategy, Govt. of Punjab, and a Member, Task Force on Health, Punjab Governance Reforms Commission, Govt of Punjab; chairs the ICMR project review committee on preterm birth research, the steering committee of the ICMR pneumonia etiology study and the STAG of the Social Innovation Program for Affordable and Relevant to Social Health of the BIRAC / DBT. He was also the chairman of the DSMB of the DBT-WHO study on severe acute malnutrition, and of the WHO/BMGF study on emollients in neonatal health. He is a member of the ICMR technical advisory group on surveillance of neonatal infections, a member of the technical advisory group of the DBT- Gates Foundation Grand Challenges Initiative; Chair of the standing selection committee and member Institute Body of AIIMS, Raipur, a member of the Board of Management, Baba Farid University of Health Sciences, Faridkot (Punjab), and a member of the academic committee, Pondicherry University, Puducherry; Visiting professor at Public Health Foundation of India, and, in addition, a member of the Institutional Ethics Committee and of the board of the Centre for Control of Chronic Diseases there. He is the chair of the ethics committee of the Futures Group; a member of the specialty advisory board (SAB) for public health, NBE; a member of the executive board of the National Health Systems Resources Centre; and a visiting faculty at the Lal Bahadur Academy of Administration, Mussorie; member of the global Steering Committee on Every Newborn Action Plan, and of Editorial Board, BioMed Central, Maternal Health, Neonatology and Perinatology, and a member of the Scientific Advisory Group, Harvard-BMGF-WHO BetterBirth program study; WHO Technical Advisor at Hq Geneva for a. the care of preterm neonates, and b. simplified regimens for treatment of newborn sepsis and quality of maternal-neonatal care at childbirth; member of the global Sustainable Development Solutions Network's Thematic Group on Health for All; appeared on multiple shows on child health on DD National, and DD News, and was quoted in the New York Times for his work on antimicrobial infections.

Professor A.K. Deorari was IAP-Neocon Oration during 7th Annual meeting at Meerut on 2nd November 2014; Technical Advisory Group, on “Effective and Practical Respiratory Support for Premature Infants (Seattle-PAP)” by Seattle Children Hospital; Co-Program Director for the National Task Force on “Prevention of Blindness from Retinopathy of prematurity” constituted by Ministry of Health & Family Welfare, 26th September 2014; Programme Advisory Group, NHRSC (National Health Systems Resource Centre), NIHFW, GOI; Member, Core Team for Development of National Guidelines on Newborn Health for Ministry of Health & Family Welfare, Government of India; India Newborn Action plan 2014; Kangaroo Mother Care and Low Birth Weight Feeding Operational Guideline 2014; Vitamin-K Guidelines 2014.

Professor Arvind Bagga was President, XII Asian Congress of Pediatric Nephrology, 4-6 December 2014; Chair, Scientific Committee of XVII Congress of the International Pediatric Nephrology Association being held at Iguazu, Brazil 2016; Managing Editor, Indian Pediatrics; Member, Editorial Board of Indian Journal of Pediatrics, Current Pediatrics, World J Pediatrics, Pediatric Research; Member, Pediatric Review Group, Indian Council of Medical Research

Professor Pankaj Hari was Organizing Secretary, XII Asian Congress of Pediatric Nephrology, 4-6 December 2014; President, Indian Society of Pediatric Nephrology; Fellow of Indian Academy of Pediatrics in January 2014; Editorial Board, Indian Journal of Trauma and Emergency Pediatrics, Journal of Progress in Pediatric Urology, International Journal of Nephrology Urology.

Dr Aditi Sinha was Secretary, Scientific Committee, XII Asian Congress of Pediatric Nephrology, 4-6 December 2014; Joint Secretary, Indian Society of Pediatric Nephrology; Member, Task Force on Kidney and Metabolic Diseases, Department of Biotechnology; Junior Representative from Asia, Council of the International Pediatric Nephrology Association; Reviewer for Pediatric Nephrology, Indian Pediatrics, Indian Journal of Nephrology, Indian Journal of Pediatrics.

Dr Rakesh Lodha was invited as an expert to the WHO meeting on revision of ETAT guidelines Sep 30- Oct 2, 2014, Geneva; expert to the WHO meeting on Ebola Virus Disease in Children, March 25-26, 2015, Geneva; Expert to the Gates Foundation meeting on Research Priorities for 2015: Optimizing Pneumonia Treatment in the Developing World, 8th August 2014, Seattle, US; Chairperson of the Ethics Committee of the Translational Health Sciences and Technology Institute; Judge for Free Paper Presentation at the 16th National Conference of Pediatric Critical Care (NCPCC); Expert to the NLEM consultation by the National Pharmaceutical Pricing Authority on 27 August 2014.

Professor Madhulika Kabra delivered Prof L.S. Arya Oration in CME organized by Indian Academy of Pediatrics on 26th October 2014 at Apollo hospital New Delhi; member of the committee for Centralized Core Research Facilities at AIIMS, New Delhi; member of Task committee for DBT Carrier Advancement and Reorientation Programme for Women Scientists (BIOCARE); member of CMET Management committee; member of the Project review committee for the intramural projects at AIIMS, New Delhi; expert member of “Regional Newborn Screening Committee” by Ministry of Health & Family Welfare, Government of India

Professor Sheffali Gulati was selected for Sheila Wallace Award, International Child Neurology Association conferred May 2014 and delivered the award plenary lecture for the same; Lifetime Achievement Award by Child Neurology Chapter of IAP, Oct 2014; Award of Excellence in research by AIIMS Sep 2014; West syndrome; Expert member of the International group for a launching of a Global Action for Autism, as a side event in SEARO Health Ministers meeting in Dhaka in September 2014; Member of National Advisory Board of Indian Epilepsy Society for developing ting Phenobarbitone- Drug status guidelines; served as Expert for Neurology projects for Indian Council of Medical Research. Editorial Board member (3 Journals) and reviewer for various National and International journals (26) including American Journal of Medical Genetics, BMJ open. Examiner and Reviewer of various theses of MD, DCH DM and PhD. Member of many International and National Professional bodies (18); Organising secretary for the Childhood Neurodevelopmental Disorders Workshop detailed above; Member of Committee to draft the 5th Edition of National Formulary of India; ICMR expert Group of Non polio AFP; Expert for the Rashtriya Bal Swasthya Karyakram; Expert for development of DM (Pediatric Neurology) curriculum, competency based guidelines, MSR and teacher eligibility qualifications for MCI; Expert for developing guidelines for certification in Autism (Ministry of health & family welfare); Member of Committee to examine reports of Serious Adverse Events of death that have occurred in clinical trials, (DCGI); Expert for developing Framework for Convergent action towards comprehensive care of children with difficulties (Ministry of health & family welfare); Expert for the Development of Indian Extrapulmonary TB guidelines; Expert for formulating Comprehensive services for individuals with Autism, Thiruvanthapuram; Expert for module development for strengthening Early childhood intervention program, Orissa; Expert for faculty recruitment, NIMH Secunderabad; Technical advisory group member of Parent mediated intervention for autism spectrum disorders in South Asia Plus; Gulati S, Chakrabarty B, Dubey R, Kaushik JS, Naik N (revised and updated). Guidelines for diagnosis and management of Childhood epilepsy; Expert Committee on Pediatric Epilepsy, IAP (Pediatric Epilepsy, Jaypee Publications, Under IAP) 2014 and also accepted as National Guidelines of IAP Oct 2014; Dr Sheffali Gulati and Dr. Biswaroop Chakrabarty were part of expert group for developing consensus criteria for management of pediatric status epilepticus (IAP guidelines)

Dr Vandana Jain was AIIMS representative and Chairperson of the NOC committee of Central Adoption Resource Agency (CARA), an autonomous body under the Ministry of Women & Child Development, Government of India; Member, Virtual Advisory Group of Wellcome Trust, UK for the Wellcome Trust Innovations Award 2014; Trained and mentored 3 pediatricians working in government sector, 2 from india and 1 from Nepal as short term fellows (3- 6 months) in Pediatric Endocrinology, in the year 2014; Invited contributor of teaching resource material for European Society for Pediatric Endocrinology (ESPE)’s interactive e-learning portal (www.espe-elearning.org) aimed at enhancing the competencies and skills of medical students, fellows and postdocs; Served on writing committee of International Society for Pediatric and Adolescent Diabetes (ISPAD) for ‘Guidelines on Management of Hyperglycemic Crises in Children with Diabetes’

Dr Rachna Seth won the following Awards (a) PG quiz at the annual conference of the Indian Society of Hematology & Blood Transfusion; (b) Post graduate (Dr Vinay) Secured the first place at State & Zonal level and won the second place at the national level; (c) Indian Journal Of Pediatrics Best Thesis award: Post graduate (Dr Manish Sharma) secured second place for thesis entitled ‘To compare the role of hydroxyurea and hyper hydration versus hyperhydration alone to decrease total leukocyte count in children of acute leukemia with hyperleukocytosis:

a randomized control trial.’ (d) BD –TCS Award to paper entitled ‘Immunophenotypic analysis of T-acute lymphoblastic leukemia. A CD5 –based ETP –ALL perspective of non –ETP T –ALL.’ jointly awarded to paper published in Eur J Hematol 2014. Chopra A, Bakhshi S, Pramanik SK, Pandey RM, Singh S, S Gajendra, Seth R, A Sharma, L Kumar, A Gogia, S RAI, R Kumar; Nominated member of Apex committee at the Indian cancer Society- NDTV Fortis Health4you, a telethon initiative.

Dr Ramesh Agarwal was appointed as member of the editorial board of the Seminars in Fetal & Neonatal Medicine; Member of IAP-ICMR panel for developing guidelines for rational antibiotics therapy; Appointed as member of New Drug Advisory committee (NDAC)- Vaccine of CDSCO

Dr M. Jeeva Sankar was invited as an Expert in the meeting of Authors of Manuscripts “Breastfeeding in a changing world” at WHO, Geneva

Dr Kana Ram Jat is FCCP (Fellow of American College of Chest Physicians) 2014; Editorial member of Asian Journal of Clinical Pediatrics and Neonatology; Frontier in child health and development; Reviewer for following journals: Cochrane Collaboration; Pediatric Allergy, Immunology, and Pulmonology; Indian Pediatrics; Indian Journal of Pediatrics; Respiratory care; Journal of AIDS and HIV Research (JAHR); Indian J of Critical Care Medicine (IJCCM); Bulletin of WHO

Dr Jhuma Sankar was part of organizing team of “Pediatric Advanced life support course at AIIMS- 10th and 11th Jan 2015”; Part of organizing team of “Workshop on mechanical ventilation”.

VISITING SCIENTIST

1. Dr Doug McMillan, Professor, University of Dalhousie, Halifax, Canada
2. Dr Shoo Lee, Professor, University of Toronto, Toronto, Canada
3. Dr Nalini Singhal, Professor, University of Calgary, Alberta, Canada
4. Professor Moin Saleem, University of Bristol, Bristol, United Kingdom
5. Professor Debbie Gipson, University of Michigan, Ann Arbor, MI, USA
6. Dr Marie Agnes Dragon Durey, Hôpital Européen Georges Pompidou, Paris, France
7. Professor C.A. Alfiler, Philippines, General Hospital, Manila
8. Professor Mignon McCulloch, Red Cross Children Hospital, Johannesburg, S. Africa
9. Dr Ashok Vellodi, Consultant Metabolic Pediatrician, Great Ormand Street, London (U.K)
10. Dr Subhashini Chandra Sekharan, Assistant Research Professor, Duke Global Health Institute, USA
11. Dr Susan J. Gross (MD), Professor of clinical obstetrics & Gynecology and women’s health, Pediatrics and genetics at the Albert Einstein College of Medicine in New York City.
12. Dr Alexendar Broomfield, Consultant Metabolic Pediatrician, Great Ormand Street Hospital, London, UK
13. Chitra Prasad, Associate Professor, Genetics, Metabolism and Pediatrics, 800 Commissioners Road East, London, ON CA
14. Ms Tanya Collin Histed- Gaucher’s association U.K.
15. Dr Kavita S. Reddy, Director of Medical Genetics, Institute of Bioinformatics, Bangalore
16. Dr Alexander Lyon, Imperial college and consultant Cardiologist, Royal Brompton Hospital, London delivered a talk on emerging concepts on onco-cardiology on 14.3.15
17. Dr Annavarupu Srinivas, Associate Clinical Lecturer, Newcastle University, UK delivered a talk on ‘Wnt signalling in rhabdomyosarcoma’ on 24.2.15

9.28 Paediatric Surgery

Professor and Head

D.K. Gupta

Professors

V. Bhatnagar
S. Agarwala

M. Bajpai
M. Srinivas

Assistant Professors

Shilpa Sharma
Devendra Kumar Yadav (from 5 June 2014)

Vishesh Jain (from 21 May 2014)

Prabudh Goel (from 22 May 2014)
Anjan Dhua (from 12 June 2014)

Professor D.K. Gupta joined the Department on 11 April 2014 after serving as Vice Chancellor at KGMU on lien from 11 April 2011 to 10 April 2014.

HIGHLIGHTS

The Department of Pediatric Surgery at AIIMS offers State-of-the-art patient care not only in General Pediatric Surgery but also in the field of neonatal surgery, urology including Intersex disorders, thoracic surgery, oncology, GI Surgery and Neurosurgery in children up to 14 year of age.

Department faculty is also actively involved in various intramural and extra mural research projects pertaining to congenital malformations and cancers in the field of molecular biology and the stem cell research. Department being on the forefront in patient care, research and teaching and training, receives large number of requests from India and overseas to visit the department and seek training in Pediatric surgery and its sub-specialties.

The department faculty has been regularly receiving national and international recognitions, awards, honors and medals for their academic excellence and scientific contributions most notably of these has recently been Prof. D.K. Gupta being elected unanimously as the President of World Federation of Association of Pediatric Surgeons (WOFAPS) FOR THREE YEARS 2014-2016 representing 134 countries. This is a unique and rare honor not only for AIIMS, India but also for Asia. Dr DK Gupta was also invited to deliver the Key Note Address at the Parliament Hill, Ottawa, Canada, on Global Child Health, October 21, 2014, a rare opportunity as the President of WOFAPS to highlight the need for global support to improve the health of the children in the world.

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-specialties and caring for children with serious malformations, advanced cancers, trauma and others.

EDUCATION

Undergraduate, postgraduate, paramedical teaching

Teaching of undergraduate medical and nursing students-Lectures and seminars are held for the undergraduate students on topics related to Pediatric Surgery

Postgraduate teaching and training of M.Ch Pediatric Surgery trainees-inclusive of Seminars, Journal clubs case discussions. Thesis presentations and Teaching Rounds

Trainees on rotation – M.Ch trainees in Neurosurgery, DM trainees in Neonatology, MS trainees in General Surgery

Training in the ward of B.Sc and the M.Sc. Nursing students

Short term training provided to:

Dr Venkatachalapathy, T.S. Bangalore Medical College & Research Institute, Bangalore February 2015

Dr Amit Kumar Yadav, Bangalore Medical College & Research Institute, Bangalore-March 2015

Dr Raashid Hamid, Sher-I-Kashmir Institute of Medical Sciences, Soura, Srinagar February 1-28, 2015

CMEs/Workshops/Symposia/National and International Conferences

- Masterclasses in Pediatric Surgical Oncology-2015, 24th to 26th February, 2015, AIIMS, New Delhi.
- Guest lecture on “Animal Models in Medical Research” by Prof. Prem Puri, President National Children’s Research Centre Our Lady’s Children’s Hospital, Crumlin, Dublin –16th December 2014, Board Room, AIIMS, New Delhi
- Symposium on Vesicoureteric Reflux, Hotel Shangri la, 16th December 2014, New Delhi

Lectures delivered

D.K. Gupta: 23

Sandeep Agarwala: 8

V. Bhatnagar: 9

Shilpa Sharma: 29

M. Bajpai: 6

Vishesh Jain: 3

Oral papers/posters presented: 53

RESEARCH

Funded projects

Ongoing

1. A comparative correlation of serological markers of autoimmune inflammation with the immunohistochemistry of liver in biliary atresia, V. Bhatnagar, AIIMS, 1 year 2014-15, 4,80,000/-
2. A study on Clinical and Molecular Markers of Chronic Interstitial Nephropathy in Congenital Unilateral Ureteropelvic Junction Obstruction (Non-Genetic Markers) Dr. M. Bajpai, Indian Council of Medical Research (ICMR), 3 years, 2011-14, continuing in 2015, 25,00,000/-
3. To study the role of molecular markers (non-genetic) in the diagnosis & treatment of Posterior Urethral Valves (PUV) Dr. M. Bajpai Indian Council of Medical Research (ICMR), 3 years, 2011-14-continuing in 2015, 25,00,000/-
4. Exploring global methylation patterns in Wilms tumor, S. Agarwala, AIIMS intramural grant, 1 year, 2014-15, 5,00,000/-
5. Comparison of various bilio enteric anastomosis-Ultrastructural evaluation by electron microscopy, M Srinivas, AIIMS, 2014-15, 4,50,000/-
6. Establishing Guidelines for Fetal Counseling for Surgical Congenital Anomalies, Shilpa Sharma. Department of Biotechnology, Three years, 2014-2017, 39,00,000/-
7. Role of Bone marrow mononuclear cells and Renal Stem cells in renal preservation in Obstructive Renopathy An Experimental study in mice. Shilpa Sharma, AIIMS Institute Research Grant, Two years, 2013-15, 5,00,000/-

Completed

None

Departmental projects

Ongoing

1. Study of various gastric tubes for esophageal replacement surgery
2. Safety and feasibility of appendectomy using various energy sources in rats
3. Comparison of HSVL, LSVL and auto transplantation in rat testis
4. Assessment of long term urological outcomes in children of sacrococcygeal teratoma.
5. The comparison of laparoscopic high ligation of spermatic vessel versus low ligation of spermatic vessel in undescended testis in children: A Randomized Clinical Trial
6. To evaluate gastroesophageal reflux disorder in children treated for esophageal atresia using multichannel intraluminal impedance pH monitoring
7. The comparison of laparoscopic herniotomy versus open herniotomy in children : a randomized controlled trial
8. An ambispective evaluation of prognostic factors and long term outcome in patients of Hepatoblastoma

9. An ambispective evaluation of prognostic factors and long term outcome in patients of Neuroblastoma
10. Knowledge, stress and coping abilities of parents of children below 18 yrs having Congenital adrenal hyperplasia
11. Results with the use of platinum based regimes in the treatment of pediatric malignant germ cell tumors.
12. Prospective study of treatment of children with hepatoblastoma on treatment with Monotherapy and PLADO regime.
13. Prospective study on five drug regimen for the management of clear cell sarcoma of the kidney
14. Primary definitive procedure versus conventional three-staged procedure for management of low anorectal malformations in females: A randomized controlled trial

Completed

1. To study the hyperglycemic response in neonates after surgery with and without infiltration of local anesthesia
2. Evaluation of rat testis following neonatal phototherapy using conventional method and Biliblanket
3. GDNF and GFR in children with Hirschsprung's disease
4. To study the clinical profile of patients during the first year after undergoing surgery for esophageal atresia tracheoesophageal fistula
5. Randomized controlled trial comparing DJ stent and trans-anastomotic feeding tube plus a nephrostomy following pyeloplasty in children

Collaborative projects

Ongoing

1. Defining the role of T-regulatory cells and cytokines in the tumour microenvironment in Wilms tumour [Biochemistry, Pathology, Pediatric Oncology]
2. A comparative correlation of serological markers of autoimmune inflammation with the immunohistochemistry of the liver in biliary atresia [Biochemistry, Pathology, Biostatistics]
3. Primary definitive procedure versus conventional three-staged procedure for management of low anorectal malformations in females : a randomized controlled trial [Biostatistics]
4. The ratio of preoperative and postoperative levels of serum bilirubin and alkaline phosphatase as simple markers to predict early outcome post Kasai's portoenterostomy [Pathology]
5. The role of sentinel lymph node biopsy in children with soft tissue sarcoma of extremities [Pediatric Oncology, Nuclear Medicine, Surgery, Pathology, Anesthesiology]
6. Exploring Global methylation pattern in Wilm's tumor [Pathology, Oncology]
7. Renal reserve in different grades of vesicoureteric reflux [Nuclear Medicine]
8. Evaluation of effects of epidural analgesia on lower urinary tract function in children by using urodynamic studies. [Anesthesiology]
9. Detection of beta catenin (CTNNB1) gene mutations in hepatoblastoma in India [Oncology, Pathology]
10. Comparison of high spermatic vessel ligation, low spermatic vessel ligation and auto transplantation in rat testis [Anatomy]
11. To estimate the levels of NRG1 in peripheral blood leukocytes and aganglionic segment in cases of Hirschsprung's disease. [Anatomy, Pathology]
12. Role of diffusion-MRI in diagnosis of hepatoblastoma and role of VEGF in pathophysiology of hepatoblastoma [Radiology, Biochemistry]
13. Prospective study of treatment of children with Wilms' tumor on treatment with modified NWTS-5 regimen [Medical Oncology, Radiotherapy and Radiology]
14. Prospective study of treatment of children with rhabdomyosarcoma on treatment with IRS-5 regimen [Medical Oncology, Radiotherapy and Radiology]
15. Evaluation of cardiotoxicity related to administration of adriamycin in children with solid tumors [Nuclear Medicine]

16. Role of ICE therapy in the treatment of recurrent wilms tumors [Medical Oncology, Radiotherapy and Radiology]
17. Role of MIBG therapy for advanced non-responsive and recurrent neuroblastoma [Nuclear Medicine]
18. Role of 68GA labeled Octreotide whole body positron emission tomography-computed tomography (PET CT) in initial staging and restaging of paraganglionoma and comparison with 131I MIBG SPECT CT [Nuclear Medicine, Endocrinology, Surgery]
19. Defining role of T-regulatory cells and cytokines in tumor micro-environment in wilms tumor [Medical oncology, Biochemistry]
20. A randomized controlled trial to assess the effectiveness of comprehensive discharge counseling plan for the pediatric surgical patients and their parents in pediatric surgical ward (AB5 ward) at AIIMS [College of Nursing]
21. Evaluation of neuronal markers in the colon of patients with persistent constipation following pull through for Hirschsprung's disease [Pathology]
22. Evaluation of clinicopathological characteristics treatment outcome and prognostic factors in soft tissue sarcoma patients [Medical Oncology]
23. Outcome of treatment with ICE (Ifosphamide, carboplatin and etoposide) salvage regime in children with relapsed/recurrent solid tumors [Medical Oncology, Radiotherapy and Radiology]
24. Apoptotic evaluation of rat testis following neonatal phototherapy using conventional method and Biliblanket [Anatomy]
25. Comparison of caudal epidural block with single shot paravertebral block for renal surgeries in pediatric patients [Anesthesiology]
26. To assess the chromosomal variations and its functional relevance vis-à-vis Hypospadias patients through genotyping and transcriptomics array [Advanced Molecular Science Research Center, KGMU, Lucknow]

Completed

1. Testicular Fixation and its effects on ipsilateral and contralateral testis in rat model [Anatomy and Pathology]
2. To evaluate the incidence of portal hypertension in patients of choledochal cyst and to correlate serum nitric oxide levels in the peripheral blood with portal hypertension and liver histology [Biochemistry, Pathology, Radiology]
3. GDNF and GFR- α 1 in children with Hirschsprung's disease. [Anatomy, Pathology]
4. To evaluate the incidence of portal hypertension in EHBA patients and monitor its progress after Kasai's portoenterostomy by measuring serum nitric oxide levels in peripheral blood. [Biochemistry, Pathology]
5. To correlate hepatic duplex sonography in patients of biliary atresia with portal pressure, serum nitric oxide levels and liver histopathology [Radiology, Biochemistry, Pathology.]
6. Randomized controlled trial comparing long term DJ stent and short term external ureteric trans-anastomotic stent and a nephrostomy in children undergoing pyeloplasty for pelviureteric junction obstruction (PUJO). [Nuclear Medicine, Radiology]
7. Experimental diversion in newborn rats. [Anatomy]
8. To study hyperglycaemic response in neonates after surgery with and without infiltration of local anaesthesia. [Anesthesia, Endocrinology]
9. Comparison of three different dextrose containing intraoperative fluid regimens on glucose homeostasis and electrolyte balance in neonates [Anesthesia, Endocrinology, Cardiac Biochemistry]
10. A study to assess the effectiveness of video assisted teaching program on knowledge and practices of caregivers of children having colostomy in pediatric surgery department [College of Nursing]
11. Gene deletions and mutations in Wilms tumor: Correlation with histopathology and Outcome [Pathology]
12. Study of prognostic factors in pelvic PNET [Medical Oncology, Radiology, Radiotherapy]
13. Study of prognostic factors in thoracic PNET [Medical Oncology, Radiology, Radiotherapy]

14. Effect of clonidine as an adjuvant to Ropivacaine in ultrasound guided transverses abdominis plane (TAP) block in children [A randomized controlled trial-Anesthesiology]
15. Genomic and proteomic analysis of SCF/C-Kit gene in a pediatric neoplasm, Neuroblastoma [Pathology, Biochemistry]
16. Evaluation of outcome of treatment of patients with neuroblastoma [Medical Oncology, Radiology, Radiotherapy]

PUBLICATIONS

Journals: 62 Abstracts: 5 Chapters in books: 7

PATIENT CARE

Various speciality clinics run by the Department and faculty:

Hydrocephalus Clinic; Antenatal Diagnosis and follow up; Pediatric Urology Clinic; Craniosynostosis Clinic; GI Hepatobiliary; IRCH: Pediatric Solid Tumor Clinic; Pediatric Thoracic Surgery Clinic; Pediatric Urology, Intersex and Hypospadias

Facilities available

- Intensive care unit for neonatal surgical patients
- High dependency area for Pediatric Surgical patients
- Computer based Urodynamic and uroflowmetry study
- Computer based Anorectal manometry
- Computer based Esophageal manometry
- 24 hours pH monitoring for Gastroesophageal reflux
- ImpedenceManometry for Gastroesophageal reflux

Community services

- Weekly outpatient clinic and operative session at CRHSP, Ballabhgarh

Attendance in OPD and Speciality clinics

	New cases	Old cases	Total
General OPD	6803	13976	20779
Hydrocephalus clinic	25	148	173
Pediatric urology clinic (W/T/F)	380	3074	3454
Intersex clinic	10		
Pediatric Solid tumor clinic (IRCH)	168	2159	2327
Craniosynostosis clinic	Nil		
CRHSP Ballabhgarh OPD	1276		

Admissions

AB5 ward: 1447 AB5/ICU: 206

Surgical Procedures

Main OT: Major Procedures: 1454 Minor Procedures: 614
 OPD Procedures (Total): 566 Biopsies in OPD: 91

Special Investigations

Urodynamic study: 361 Uroflowmetry: 674 Anorectal manometry: 148
 Esophageal manometry: 5 24 hours pH monitoring: 2

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor D.K. Gupta delivered keynote address at Parliament Hill, Ottawa, Canada on October 21, 2014 on Global Child Health – learning points; Organized Guest Lecture – Animal Models in Medical Research, by Prof Prem Puri, Dublin, at AIIMS, New Delhi, December 16, 2014; Organized symposium on Management of Vesico-urtereretic Reflux, Hotel Shangri-la, New Delhi, December 16, 2014; Chaired scientific session and participated in panel discussion, scientific program and expert comments during the Alex-Pedsurgery Conference 2014, held in Alexandria, Egypt. May 24-29, 2014; Held a meeting with the Consul General of India for the promotion of Global Child Health Care, Sydney, September 11, 2014; Chaired the scientific session on Hirschsprung's disease, during the 5th Ibero-Americano Congress of Pediatric Surgery, Sao Paulo, Brazil, October 27-30, 2014; Chaired the scientific session on prestigious WOFAPS Lecture – history of WOFAPS during 40 years, delivered by Emeritus Prof. J. Boix Ochoa, the Life Hony. Secretary General, Spain, on October 30, 2014; Presided over the Executive Committee meeting of the World Federation Association of Pediatric Surgeons (WOFAPS), on October 27, 2014; Presided over the council meeting (Presidents of various organizations of Pediatric Surgeons from different countries) of WOFAPS on October 27, 2014; Presided over the CME-Masterclasses in Pediatric Surgical Oncology, AIIMS, New Delhi held from February 24-26, 2015; Chaired the International Symposium on Innovations in Pediatric Surgery organized by the National Children Hospital and the Sheikh Zayed Institute of Innovation, Washington D.C. with the following commitments: (a) To chair the pre planning meeting of the 4th coming of 5th World Congress of Pediatric Surgery, with the CEO and the Chief of Pediatric Surgery, the local organizers of the congress to be held in Washington DC in October, 2016; (b) to participate in the Symposium of Innovations, attended by over 300 delegates and the researchers from across the world; Chairman: Store Purchase Committee, AIIMS, New Delhi, 2014; Member, Advisory Committee for the Central Animal Facility at AIIMS; Chairman: Greenwood and Lister Fellowship Awards of the British Association of Pediatric Surgeons, UK, for the selection of Pediatric surgeons from SAARC Region; Chief Guest to address the New Batch of MBBS and BDS students, DY Patil University, Pune, July 23, 2014; Chief Guest, Haryana Branch of the ASI, Karnal, June 2014; Chief Guest – Recent Trends in Molecular Biosciences, IITR, Lucknow, July 25, 2014; Guest of Honor: Panel discussion: academics and Health care sustainability –policy to practice. IIM, Lucknow, October 14-15, 2014; Guest of Honor: 5th International Conference on Stem Cells and Cancer (ICSCC-2014) at JNU, New Delhi. Nov. 8-10, 2014; Teleconference with USA and South Africa, June 22, 2014; Editorial Board Member – Journal of the Clinical Epidemiology and Global Health, Lucknow; Chairman, Scientific Committee, 5th World Congress of Pediatric Surgery, Washington DC, October 2016; Chaired the scientific session on Indo-US workshop on Nano-engineering in Medicine, AIIMS, New Delhi, December 17-19, 2014; Guest faculty and Panelist Panel discussion, during the Global Association of Physicians of Indian Origin, GAPIO, Chandigarh, January 10-11, 2015; Guest Faculty to the Postgraduate CME Program, Wadia Children Hospital, Mumbai, January 24-26, 2015.

Professor V. Bhatnagar was Member Board of Studies for the newly created Department of Pediatric Surgery, Sanjay Gandhi Post-Graduate Institute of Medical Sciences, Lucknow since February 2011; Governing Council Member, Chacha Nehru Bal Chikitsalaya, New Delhi since 2012; Editorial Board Member, Indian Journal of Pediatrics since 2004; Member, Editorial Board, Journal of Indian Association of Pediatric Surgeons since 1996; Advisory Panel Member, National Academy of Medical Sciences since 2008; Vice President, The AIIMSONIANS; CME Chairman. Long term outcomes in pediatric surgery. 3rd Annual Conference of Delhi Chapter of IAPS, New Delhi, September 6-7, 2014; Master Class Chairman. Renal tumours. Pediatric Surgical Oncology Masterclass – Delhi 2015, New Delhi, February 24-26, 2015.

Professor M. Bajpai was President of Indian Association of Pediatric Surgeons (IAPS) and have presided over various conferences held under the aegis of IAPS; Chairman: Creation of Post Graduate Course in Trauma, AIIMS, New Delhi; Park Clinic Oration on Bladder Exstrophy at 35th Annual Conference of IAPS West Bengal Chapter held on 13-14 Dec. 2014 at KPC Medical College, Kolkata; Submitted report on Transgenders Issues constituted by Ministry of Health & Family Welfare and Ministry of Social Justice for developing basic infrastructure and health care facility for Transgenders in India; Member of Transgender Committee constituted by Indian Council of Medical Research (ICMR); Principal Investigator: Dissipation of information for Disorders of Sex Development. National Council for Science and Technology Communication, Department of Sciences & Technology, Ministry of Science & Technology, Govt. of India; Member of a Medical Board to prescribe the specific tests and the testing procedure to determine the gender of a person and creation of referral system where athletes can be referred to AIIMS for accreditation and certifications by Ministry of Youth Affairs & Sports, Department of Sports, Govt. of India and Indian Olympic Association; Member: Surgical Instruments and Suture

Selection Committee of AIIMS, New Delhi; Delivered lecture on Vesico-ureteric Reflux at Hotel Park under the aegis of R & R Hospital, Ministry of Defense, Govt. of India.; Guest of Honor at NEIAPS 2015 held on 14 Feb. 2015 at Regional Institute of Medical Sciences, Imphal, Manipur; Examiner in prestigious institutions like AIIMS, New Delhi; PGIMER, Chandigarh; West Bengal University of Medical Sciences, Kolkata; Gujarat University; St. John's Medical College, Bangalore; Invited Faculty at Videosurgery in Paediatric Urology Advanced Course held on 3-5 Apr. 2014 at Strasbourg, France

Professor Sandeep Agarwala was Nominated as Executive Board Member for the Asian Association of Pediatric Surgeons; Section Editor for the Indian Journal of Pediatrics; Vice Chairman of the Resource Challenged Nations study group of SIOPEL; Member of Committee to consider Ph.D reforms at AIIMS; Member of Committee to frame guidelines of the seats/posts of JR(MD/MS/MHA) and SR (DM/MCh) and SR (Non-DM/MCh) at AIIMS; Member OT management Committee, and Annual Report Committee of AIIMS; Course Instructor for Masterclass in Pediatric Surgical Oncology, Conducted by International Society of Pediatric Surgical Oncology (IPSO), and the European Board of Examination, and European society of pediatric Surgery

Professor M Srinivas has been inducted as Editorial Board of Frontiers in Gastroenterology as Review Editor.

Dr Shilpa Sharma was Nominated as Executive Committee member of International Society of Hypospadias and Intersex Disorders (ISHID) 2013-2015; Nominated as Editorial Board member of International Journal- Pediatric Surgery International in 2014; Secretary of Research Section of Indian Association of Pediatric Surgery 2013-2015.

Dr Prabudh Goel was elected as the 'Fellow of International College of Surgeons'. The degree was awarded at the 60th Annual Conference of the International College of Surgeons: Indian Section held at Bangalore from September 26-28, 2014; won Pune Gastroenterology Award for research on 'Nitric Oxide in Portal Hypertension: Its Utility in the management of extra hepatic portal venous obstruction, diagnostic differentiation of neonatal hepatitis vs extra hepatic biliary atresia and prediction of liver damage in neonatal cholestasis: A composite study' at the 60th Annual Conference of the International College of Surgeons: Indian Section held at Bangalore from September 26-28, 2014; Member 'World Association of Medical Editors'; Member of the 'Indian Association of Medical Journal Editors'; Associate Editor of 'Journal of Clinical and Diagnostic Research'; Editorial Secretary of the 'Journal of Progress in Pediatric Urology'.

VISITING SCIENTISTS

1. Prof. Robert Carachi, University of Glasgow, Glasgow, Scotland
2. Prof. Prem Puri, National Children's Research Centre, Our Lady's Children's Hospital, Crumlin, Dublin, Ireland
3. Prof Azad Mathur, Norfolk and Norwich University Hospital, Norwich, UK
4. Dr Rajendra Kumar, John Hunter Children's Hospital, Newcastle, Australia
5. Dr Ashish Minocha, Norfolk and Norwich University Hospital, Norwich, UK
6. Dr Surender Verma, Texas Tech University Health Sciences Center, Texas, USA
7. Dr Kamlesh Verma, Texas Tech University Health Sciences Center, Texas, USA
8. Prof. Piet Hoebeke, University Hospital, Gent, Belgium
9. Dr Ramanath Subramaniam, University of Leeds, UK
10. Dr Daniel C Aronson, Pediatric Surgical Center of Amsterdam, Netherlands.
11. Dr Hélène Martelli, Centre Hospitalier Universitaire Bicêtre, France
12. Dr Giovanni Cecchetto, University Hospital of Padua, Italy
13. Dr Jan Godzinski, Marciniak Hospital, Poland
14. Dr Dermot Murphy, Royal Hospital for Sick Children, UK.
15. Dr Annavarapu Srinivas, Royal Victoria Infirmary, Newcastle, UK.

9.29 Pathology

Professor and Head

Subrat K. Panda

Professors|

Chitra Sarkar
A.K. Karak
M.C. Sharma

Manoj K. Singh
Ruma Ray
Venkateswaran K. Iyer

S. Datta Gupta
A.K. Dinda

Additional Professors

Sandeep. R. Mathur

Vaishali Suri

Assistant Professors

Sudheer Arava
Deepali Jain
Seema Kaushal

Geetika Singh
Prasanjit Das
Shipra Aggarwal

Asit Ranjan Mridha
Rajni Yadav
Saumya Ranjan Mallick

Group A Officers

Bharat Bhushan Khurana

Himender Singh Tomar

HIGHLIGHTS

- 1) Establishment of slide scanning facility
- 2) Establishment of NGS facility

EDUCATION

Residents

MD students: 18

Senior Residents: 16

PhD students: 12

Short term training

1. Dr. Devki Keswani from Govt. Medical College, Kota, Rajasthan underwent short term for one month 8/1 2015 to 3/02/2015.
2. Dr. Abha Shrestha, Dr. Girishma Shrestha, Dr. Krishna Kumar Maharja and Dr. Tachona Nembang Subba from BP Koirala Institute of Health Sciences, Dharan, Nepal underwent one month training from February 2015.
3. Dr. Sushila Jaiswal from Sanjay Gandhi PG Institute of Medical Sciences, Lucknow underwent short term training for 10 days ie 16/6/2014 to 26/6/2014,
4. Dr. Kanika Kardam from Bhaskarya Charya, College of Applied Sciences, University of Delhi, Dwarka under went two months training from 1/6/2014 to 31/7/2014.
5. Surg. Lt. Cdr. Ritu Mehta from Ministry of Defence, New Delhi is undergoing long term for two years from 23/12/2013 to 22/12/2015.
6. Dr. Gaurav Pratap Singh Gahlot from from Ministry of Defence, New Delhi is undergoing long term for two years from 1/4/2014 to 31/3/2016.
7. Major Richa Ranjan underwent Long term training for 2 years from 4/6/12 to 3/6/2014.

CMEs/Workshops/Symposia/National and International Conferences

1. IAP-ID Mid Year Teaching Programme, Symposium on the Disease Process; from Pathogenesis to Prognosis 13- 15 June 2014, AIIMS New Delhi

2. IIIrd Annual Conference of the Delhi Chapter of Indian Academy of Cytologists, 13 Sep 2014, AIIMS New Delhi
3. The Indo-US Science and Technology Forum (IUSSTF) funded Indo-US Workshop on Nano-engineering in Medicine at AIIMS on 17 – 19 December, 2014 (Dr AK Dinda: Indian Principle Investigator and Chairperson)
4. Indo-US Symposium on Regenerative Medicine at AIIMS on 12 and 13 January, 2015 (Dr AK Dinda)

Lectures delivered

S.K. Panda: 1

S. Datta Gupta: 15

Mehar C. Sharma: 5

Vaishali Suri: 3

Asit Ranjan Mridha: 1

Rajni Yadav: 1

Chitra Sarkar: 14

Ruma Ray: 1

V.K. Iyer: 2

Geetika Singh: 2

Deepali Jain: 4

Seema Kaushal: 1

Manoj Kumar Singh: 6

A.K. Dinda: 12

Sandeep Mathur: 10

Sudheer Kumar Arava: 5

Prasenjit Das: 9

Shipra Agarwal: 2

Oral papers/posters presented: 82

RESEARCH

Funded projects

Ongoing

1. Development of an in vitro System to Study the Pathophysiology of Non-alcoholic Fatty Liver Disease (NAFLD) and Non-alcoholic Steatohepatitis (NASH). SK Panda. ICMR, 3 years, 01/08/2012 to 31/07/2015, Rs 48,33,840/-
2. Hepatic cytokine expression, hepatocyte proliferation, progenitor cell activation in chronic hepatitis. S. Datta Gupta All India Institute of Medical Sciences, 2 years, 2013-15, Rs 5 lakhs
3. Identification of EGFR mutation, ALK gene rearrangement, KRAS mutation, and FGFR1 mutation in molecular subtyping of lung cancer, Deepali Jain, ICMR, 2 years, 2014-16, Rs 20 lacs (approx) Technically approved.
4. Detection and comparison of EGFR mutations in matched tumor tissues and sera of patients with pulmonary adenocarcinoma, Deepali Jain, DBT, 3 years, 2014-17, Rs 25 lakhs, Technically approved.
5. 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, 3 years, 2015-18, Rs 15 lacs.
6. 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, Sudheer Arava, AIIMS, Research section, Two years, 2013, Rs 5 lakhs.
7. Immunohistochemical analysis of CXCR4, SDF-1, CXCR7 antigens, its correlation with p53 immunopositivity and Ki67 Labeling Index (LI) in Ewing sarcoma and its prognostic implication. Asit Ranjan Mridha, AIIMS, New Delhi, Two years, 2013, Rs 5 lakhs.
8. Development of Objective light microscopic and morphometric criteria for diagnosis and follow-up of coeliac disease in Indian patients, P Das, AIIMS Research fund, 2 years, 2013 March-2015 March, Rs 10 lakhs.
9. Molecular characterization of microscopic preneoplastic lesions of colon-exploring the prospect of future cancer screening, P Das, DBT, India 3 years, Funds not yet released, Rs 25 lakhs.
10. A Clinicopathological and Molecular Genetic Study of Polycomb Repressive Complexes in Gliomas. Chitra Sarkar. ICMR, 3 years, 2012-15, Rs 50 lakhs (approx)
11. Genomic and functional approaches to decipher the role of a large imprinted miRNA cluster in glioblastoma multiforme. Chitra Sarkar. Department of Biotechnology, 3 years, 2012-15, Rs 50 Lakhs (approx.)
12. Unraveling glioma development and progression through whole exome sequencing. Chitra Sarkar. Department of Biotechnology, 3 years, 2013-16, Rs 99 Lakhs (approx.)
13. A study of clinicopathological features and molecular genetic alterations in adult versus pediatric meningiomas

(Intramural project). Vaishali Suri. Intramural, 3 years, 2013-15, Rs 10 lacs

14. Association of BK Polyoma virus and Urothelial carcinoma: A study in the Indian population, Geetika Singh, AIIMS Research Section, 1 year, 2012-15, Rs 4,98,000.
15. ICMR Taskforce study on female genital tuberculosis: Evaluation of molecular methods (PCR, immuno histochemistry) against conventional methods (histopathology, culture, AFB staining in endometrial samples) and laparoscopy in detection of genital tuberculosis in infertile women. Venkateswaran K Iyer (Immunohistochemistry reference lab), ICMR, 3 years, 2013-16, Rs 35.24 Lakhs (for immunohistochemistry)
16. Role of glypican 3 in the molecular pathogenesis of Wilms' Tumor and its value in prognosis and treatment response. Venkateswaran K Iyer, DBT, 3 years, 2014-17, Rs 19.55 Lakhs
17. A pilot study on Micro RNA expression pattern in Wilms tumor samples and peripheral blood: Relation to histopathology classification and stage. Venkateswaran K Iyer, AIIMS, 2 years, 2013-15, Rs 10 Lakhs
18. Development of Cancer prognostic test for prediction of aggressive disease in breast cancer patients. Sandeep R. Mathur, DBT, 3 years, 2012-15, Rs 17 lakhs.
19. Stratification of breast cancer in young females by molecular subtypes and androgen receptor status: A clinicopathological study. Sandeep R. Mathur, AIIMS, 2 years, 2014-16, Rs 4.9 lakhs
20. Cell Sheet Engineering for assembling Human Corneal Construct, A.K. Dinda, IIT-Delhi, 5 years, 2011-15, Rs 1 crore.
21. Development of cost effective nanoparticle based drug delivery system of amphotericin B for treatment against visceral leishmaniasis. A.K. Dinda, DBT, 3 years, 2012, Rs 89 lakhs
22. Human pharmacology and toxicology profiling of INMAS biomedical products. A.K. Dinda, DRDO, 3 years, 2012-15, Rs 19 lakhs.
23. Nanoparticle based siRNA delivery for in vivo silencing of oxidized-LDL receptor (LOX-1) on monocyte macrophage cells by specific siRNA and its impact on the plasma level of proinflammatory cytokines. A study in animal model. A.K. Dinda. DBT. 3 years, 2013-16, Rs 35,66,136.
24. Development of novel nanoparticle based hepatitis B (HBV) vaccine with enhanced antigen presentation and prolonged immunity. A.K. Dinda, DBT, 3 years, 2013-16, Rs 91,36,000/-
25. Development of nanoparticulate antitubercular drug delivery system for macrophage receptor specific targeting through oral and respiratory route: Phase I study. A.K. Dinda, ICMR, 2 years, 2015-17, Rs 49,73,000/-
26. Design & Development of E-courses in Health & Medicine Sciences for Virtual Teaching, Manoj K Singh, Centre for Development of Advanced Computer (C-DAC), 3 years, 26-12-2013 to 25-12-2016, Rs 118.17 Lakhs
27. The Virtual Skills Laboratory, Manoj K Singh, Deity, 2 years, 10-10-2014 to 09-10-2016, Rs 262.5 lakhs

Completed

1. Hepatitis E Virus (HEV) super infection on chronic hepatitis B associated liver disease. S.K. Panda, DST, 3 years, 30/12/2011 to 29/12/2014, Rs 87,84,921/-
2. Analysis of the intergenic cis acting elements in Hepatitis E virus responsible for the formation of sub genomic RNA. S.K. Panda, DBT, 3 years, 04/04/2012 to 03/04/2015, Rs 78,84,926/-
3. EGFR expression in non- small cell carcinoma of lung: an IHC and FISH analysis, Deepali Jain, Research Section AIIMS, 2 years, 2012-14, Rs 10 lacs
4. Glioblastomas in children and adults: A comparative study with special reference to molecular pathways and MGMT methylation status, Vaishali Suri, ICMR, 3 years, 2010-13, Rs 25 lacs
5. Study of epithelial mesenchymal transition in ependymomas, M.C. Sharma, AIIMS, 1 year, 2012-13, Rs 5 lacs
6. Study of Expression of Biomarkers in Endometrial Hyperplasia and Carcinoma. Sandeep R Mathur, AIIMS Intramural Grant, 1 year, 2013-15, Rs 4.6 Lakhs
7. A study of miRNA de-regulation and IL-10 expression as prognostic marker in breast cancer. A.K. Dinda, CSIR, 3 years, 2012-15, Rs 25,00,000.

Departmental projects

Ongoing

1. Common driver mutations in lung adenocarcinoma in India: an immune-histochemical analysis
2. Detection of altered protein expression in microscopic preneoplastic mucosal lesions of the colon by immunohistochemistry and correlating them with colorectal cancer
3. Detection of Early microscopic preneoplastic lesion in colectomy specimen of colorectal carcinoma.
4. Searching role of SPARC in desmoplastic Gastroenteropancreatic tumors: A potential agent for targeted therapy
5. Characteristics of thrombus aspirated in Patients undergoing primary PCI For Acute Myocardial Infarction and its prognostic significance
6. Study on Metformin in Bleomycin-induced Pulmonary Toxicity in rats
7. Autologous non-cultured Dermal cell suspension transplantation in the treatment of Facial volume loss
8. Dermoscopic study of hyper pigmentation
9. Clinicopathological study of lupus Miliaris Disseminatus Faciei and Granulomatous cheilitis
10. HPV-16 and EGFR mutation in oral squamous cell carcinoma and verrucous carcinoma
11. Evaluation of Arjuna [*Terminalia arjuna* (Roxb.)] and Tulsi [*Ocimum sanctum* (Linn.)] in Experimental Pulmonary Artery Hypertension in Rats.
12. Exploring the role of adipose tissue ABCA1 in determining serum HDL cholesterol.
13. Molecular basis of estrogenism in endometriosis.
14. Comparative study of Virtual and Conventional autopsy in the phenotypic characterization of stillbirths.
15. Expression of histone markers in gliomas
16. miRNA profiling in oligodendrogliomas
17. miRNA profiling in pediatric glioblastomas
18. Simplified approach for molecular classification of GBMs
19. Expression of EZH2, Cyclin D1 and VEGF in ATRTs of CNS
20. Intracranial germ cell tumors – multicentric study
21. Pediatric oligodendrogliomas – study of molecular genetic alterations
22. Expression of DNA methyl transferases in glioblastomas
23. Epilepsy associated tumors – study of genetic alterations and micro RNA profiling
24. Pediatric Meningiomas-A Study of Clinicopathological features, hormonal profile and genetic alterations
25. Stratification of breast cancer in young females by molecular subtypes
26. Study of radioenhancing capability of gold nanoparticle
27. Development of targeted nanodrug delivery system for Rheumatoid Arthritis
28. Gene deletions and mutations in Wilms tumor: Correlation with histopathology and outcome

Completed

1. Detection of Early microscopic preneoplastic lesion in colectomy specimen of Colorectal carcinoma.
2. Pathological evaluation of dilated cardiomyopathy with special reference to histological and morphometric analysis of fibrosis, capillary density, arteriolar density and pattern of collagen IV distribution—a study on endomyocardial biopsies and explanted native hearts
3. Prevalence of Coronary Atherosclerosis in Young Indians: An Autopsy Study
4. Immunohistochemical study of e-Cadherin, β -catenin and vimentin in oral squamous cell carcinoma, verrucous carcinoma in comparison with that of a metastatic squamous cell carcinoma in a cervical lymph node.

5. A Clinico morphological study of cutaneous tuberculosis with special emphasis on immunohistochemistry.
6. Assessment of histopathological features of maculopapular viral exanthem and drug induced exanthem
7. Evaluation of Clinicopathologic characteristics, treatment outcome & prognostic factors in patients with Soft tissue sarcoma.
8. Molecular characterization and osteoblast differentiation of human bone marrow derived mesenchymal stem cells.
9. ATRX gene expression in gliomas
10. BRAF and EGFR alterations in adult pilocytic astrocytomas
11. Clinicopathological and molecular subtyping of medulloblastomas
12. Study of tuberous sclerosis complex and upregulation of WNT pathway in subependymal giant cell astrocytomas and focal cortical dysplasia
13. Characterization of pediatric posterior fossa ependymomas based on 1q gain and expression of laminin alpha -2 (LAMA2) and neural epidermal growth factor like-2 (NELL2) proteins
14. Expression of biomarkers in endometrial hyperplasia and carcinoma
15. Assessment of 1p/19q status in glial tumors by FISH assay
16. Analysis of LOH 10q in Glioblastomas
17. Analysis of 1p/14q deletion in meningiomas
18. Expression of Biomarkers in Endometrial Hyperplasia and Carcinoma
19. Study of endocytosis and fate of calcium phosphate based and gold nanoparticle.
20. Metal nanoparticle for imaging and cancer targeting

Collaborative projects

Ongoing

1. Plasma EGFR mutation in pulmonary adenocarcinoma. Pulmonary Medicine & Sleep Disorders AIIMS New Delhi
2. Role of 18F choline PET-CT in the localization of hyperfunctioning parathyroid tissue in patients with primary hyperparathyroidism (MD Thesis). Nuclear Medicine, AIIMS, New Delhi
3. Role of 11C-Methionine PET/CT in the localization of hyperfunctioning parathyroid tissue in patients with primary hyperparathyroidism. (M.Sc. Thesis) Nuclear Medicine, AIIMS, New Delhi
4. Gene expression analysis in colorectal cancer stem cells (Biochemistry)
5. To study the association between differentiation and tumor microenvironment in human colorectal cancer (Biochemistry)
6. Identification and validation of potential biomarkers in human colon cancer stem cells (Biochemistry)
7. Biomarkers for assessment of villous abnormality in patients with celiac disease and other enteropathies (Gastroenterology)
8. Assessment of prevalence of eosinophilic esophagitis in patients with dyspepsia. (Gastroenterology)
9. Predictive biomarkers for response to neoadjuvant chemoradiotherapy in locally advanced rectal cancer (IRCH)
10. Correlation of Metabonomics and Enzyme activity Profile of Intestinal Mucosa in Celiac disease using NMR Spectroscopy and Immunohistochemistry (Nuclear Medicine).
11. Detection of prevalence of Mycobacterium Paratuberculosis in intestinal biopsies of Crohn's disease (Gastroenterology)
12. Liver biopsy in Acute and Chronic liver disease (Gastroenterology)
13. A retrospective study of apoptotic pathway markers in early celiac disease: will it change the treatment strategy? (Gastroenterology)

14. Association of Mycobacterium avium subsp. paratuberculosis with Crohn's disease. ICMR project. (Gastroenterology)
15. Fibrosis in heart failure. Pharmacology, cardiology in India and UK
16. 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. AIIMS
17. Chip sequencing in gliomas. IGIB, Delhi
18. Regulation of FAT1 gene expression in Gliomas. Biochemistry, AIIMS, New Delhi
19. Signalling interactions between Fat1, p53 and HIF1 α in glioma. Biochemistry, AIIMS, New Delhi.
20. Centre of Excellence in Epilepsy with special reference to 'Difficult to treat Epilepsy'. Neurosurgery, AIIMS, New Delhi.
21. Role of Bone marrow mononuclear cells and Renal stem cells in renal preservation in Obstructive Renopathy—An experimental study in mice. Pediatric surgery, Trauma centre, AIIMS.
22. Prediction of tumor neo-angiogenesis and grade by imaging based biomarkers using diffusion weighted MRI and dual energy perfusion CT in advanced renal cell carcinoma. Radiology, AIIMS
23. Effect of Indian almond and sweet almond in Diabetes induced nephropathy and cataract in rats. Pharmacology, VP Chest institute
24. Imaging and molecular characterization of differentiated thyroid cancer. Nuclear medicine
25. 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 & Obstetrics.
26. Biostatistical aspects of prognostic factors including molecular parameters in breast cancer patients: An epidemiological appraisal. BRA-IRCH
27. To study the efficacy of nanoformulation of antiepileptic drugs in various animal models of seizure. Pharmacology
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
29. Identification of unique morphologically identifiable preneoplastic lesions in colon mucosa during colorectal carcinogenesis. GI Surgery, Surgery
30. Detection of altered protein expression in microscopic preneoplastic mucosal lesions of the colon. GI Surgery, Surgery
31. Validation of low cost methods for detection of KRAS mutations in colorectal cancer. Pathology
32. A study on the role of miRNAs modulating signal transduction in pancreatic cancer. Gastroenterology & HNU, Biochemistry
33. Association of various genotypes of M Tuberculosis with clinical, pathological manifestation and disease outcome of post-primary tuberculosis. Laboratory Medicine, Medicine, and LRS Institute of TB & Respiratory Diseases
34. Biomarker for assessment of villous abnormalities in patients with celiac disease and other enteropathies. Gastroenterology & HNU
35. Understanding the pathophysiology of endometriosis by protein profiling and correlation with stress. Physiology, Obstetrics & Gynecology, Reproductive Biology, Biostatistics
36. 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, Obstetrics & Gynecology
37. The ratio of preoperative and postoperative serum bilirubin and alkaline phosphatase as simple markers to predict early outcome post-Kasai portoenterostomy. Pediatric Surgery
38. Study of clinical and histopathological features of acute on chronic hepatitis. Gastroenterology & HNU

39. Histopathology of Non-cirrhotic Portal Fibrosis (NCPF) and Extrahepatic Portal Venous Obstruction (EHPVO). Gastroenterology & HNU, GI Surgery
40. Comparison of histological and fibroscan scoring of liver fibrosis. Gastroenterology & HNU
41. Histopathology of Celiac disease in symptomatic and asymptomatic cases and family members. Gastroenterology & HNU and Pathology
42. Impact of laparoscopic sleeve gastrectomy (Bariatric Surgery) on non-alcoholic fatty liver disease (NAFLD) in morbid obesity. Surgery, Gastroenterology & HNU

Completed

1. Yield of linear probe EBUS-TBNA in undiagnosed mediastinal lymphadenopathy. Pulmonary Medicine & Sleep Disorders AIIMS New Delhi
2. Gene expression analysis in colorectal cancer stem cells. Biochemistry
3. A retrospective study of apoptotic pathway markers in early celiac disease: will it change the treatment strategy? (Gastroenterology)
4. Association of Mycobacterium avium subsp. paratuberculosis with Crohn's disease. (Gastroenterology)
5. Study of placenta for oxidative stress status in pregnant women on daily versus weekly iron supplementation: An ICMR Task Force Study. ICMR Task Force project
6. Effect of blocking of HIF1 α gene expression on macrophage endocytosis and generation of ROS. Center for Molecular Medicine, JNU

PUBLICATIONS

Journals: 135

Abstracts: 17

Chapters in books: 5

PATIENT CARE

Laboratory services

Surgical Pathology Laboratory			
Specimens processed	45418	Special stains	35100
Cytopathology Laboratory			
Total specimens	23133		
FNAC (out patient)	8900	Exfoliatives routine	10633
Cervical smears (PAP smears)	3600		
Autopsies performed	14		
Electron microscopy			
Specimens processed	1515		
Kidney biopsy	801	Muscle biopsy	410
Tumor tissue	275	Nerve biopsies	29
Immunohistochemistry Laboratory			
Diagnostic	28224	Research	1809
Neuropathology services			
Surgical specimens	2513	Frozen sections	243
Immunohistochemistry	11,635		
<i>Muscle biopsies</i>			
Total number received	359	Muscle enzyme histochemistry	910
	Muscle Immunoblot	228	
Muscle immunohistochemistry	2550		
Diagnostic FISH	510		

Tissue Culture Lab			
H&E Staining	6905	Special Stains	1210
Helicobacter pylori	1191	Giemsa	1009
Immunohistochemistry	2443	Frozen sections	2040
Unstained	2504	Coated slides	18691
Research blocks	2720		
Renal pathology services			
Urine sediment analysis	2446	Kidney biopsy	651
IF kidney biopsy	614		
Cardiac pathology			
Routine	294	Research	87
Slides Coated			
APES	31827 slides		
Other work			
Immunohistochemistry	543	H & E slides	116
Unstained	750	Frozen section	2
Post cardiac transplant biopsies (Manual)	4		
Skin Biopsy	153	Kidney biopsy	570

AWARDS, HONOURS & SIGNIFICANT EVENTS

Professor S.K. Panda was nominated as a Chairman of the Medical Sciences Research Committee of Council of Scientific & Industrial Research upto 31 March, 2018; Expert for the Selection Committee for recruitment of Faculty at AIIMS, Bhubaneswar, Orissa on 20/11/2015; Expert for Assessment Promotion of Faculty Members for Department of Pathology in SGPGIMS, Lucknow on 23/6/2014; Expert for selection of faculty posts for ESIC Medical College, Faridabad at ESIC, New Delhi on 15, 19 & 20th May, 2014; Expert of Assessment Board for selection of faculty members for Pathology Department in IGIMS, Patna, Bihar on 30/6/2014.

Professor Chitra Sarkar was nominated Vice President of the International Society of Neuropathology; Chairperson of the AIIMS Intramural research committee (Basic Sciences); Member, Editorial Board of journal Neuropathology (published from Japan); Member, Assessment Committee for scientists' promotions of ICMR; Member of the Council of the Indian Academy of Sciences, Bangalore for the triennium 2013–15; Section editor of the journal "Current Science" (2013–15); Member, Governing Body and Scientific Advisory Committee of National Brain Research Centre, Manesar; Member, Scientific Advisory Committee of Institute of Pathology, New Delhi; Member, RNAi committee of Department of Biotechnology, Govt. of India; Co-chairperson, Human Ethics Committee of National Institute of Immunology, New Delhi (2013-15); Member, Human Ethics Committee of Dr Ambedkar Centre of Biomedical Research, New Delhi (2012-15); Member, Task Force of Neurosciences, Department of Biotechnology, Govt. of India; Invited by WHO to co-author the chapters entitled "Primitive neuroectodermal tumor of central nervous system" and Embryonal tumor with multilayered rosettes" in the upcoming WHO classification of Tumours of the Central Nervous System.

Professor Manoj Kumar Singh was Elected National President of the IAPM (Indian Association of Pathologists & Microbiologists); Appointed National Co-ordinator of the NPTEL Medicine (National Program for Technology Enhanced Learning) of the IITs.

Professor S. Datta Gupta continues as Professor-in-Charge of Examination Section; was requested to continue as the Vice-President of the Indian Association of Pathologists and Microbiologists for the year 2015; continues as an Associate Editor of the Indian Journal of Pathology and Microbiology; continues as a Member of the Editorial Board of the Indian Journal of Laboratory Physicians, Indian Journal of Dermatopathology and Diagnostic Dermatology; A Celiac Disease Diagnostic Kit developed jointly by International Centre of Genetic Engineering and Biotechnology (ICGEB) New Delhi, All India Institute of Medical Sciences (AIIMS), Translational Health Science and Technology Institute (THSTI), Gurgaon, was launched commercially by the Hon'ble Minister of Science & Technology on 28th October, 2014 at 11.00 A.M at ICGEB, New Delhi. The following were members of the team that developed the kit: Shinjini Bhatnagar [AIIMS, THSTI], Navin Khanna [ICGEB], Uma Chandra

Mouli Natchu [THSTI], Nitya Wadhwa [TSHTI], S Datta Gupta [AIIMS], Savita Saini [AIIMS], Meena Pal [ICGEB], Poornima Tyagi [ICGEB] and this has been patented [*Patent no.1133/DEL/2011 dated 18-04-2011*]

Professor M.C. Sharma was invited by WHO to be co-author in two chapters entitled “Tuberous sclerosis complex” and “Subependymal giant cell tumours” in the upcoming WHO classification of Tumours of the Central Nervous System

Professor A.K. Dinda delivered the P.C. Sengupta Memorial Oration at Tropical School of Medicine, Kolkata on 5 July 2014 entitled, “Nanotechnology and Future of Medical Practice”; Member of “Advisory Board of Academic Studies” of Motilal Nehru National Institute of Technology, Allahabad; Member of the Editorial Advisory Board of South Asia Edition of Robbins & Cotran Pathologic Basis of Disease, Elsevier Publication, 2014; Member Expert committee of Medical Biotechnology and Medical Nanotechnology, Sectional Committee of Bureau of Indian Standard, Govt. of India 2014–15; Expert member of the Advisory group for Development of Guideline for Nanosafety Regulation by Director General ICMR; Member, Nano-Biotechnology Task Force Committee of Department of Biotechnology (DBT), Govt of India

Dr Vaishali Suri was elected as a Member of National Academy of Medical Sciences in 2014.

Dr Deepali Jain was invited by WHO to be co-author in chapter entitled as “Cardiac Myxoma” in *WHO Classification of Tumours of the Lung, Pleura, Thymus and Heart year 2015*; received “Young Researcher Award” Lady Tata Memorial Trust 2015

Dr Sudheer Arava was Editorial committee member for the journal- Journal of the Practice of Cardiovascular Sciences. AIIMS, New Delhi; Editorial committee member for the journal- The Indian Journal of Dermatopathology and Diagnostic Dermatology

Dr Sandeep Mathur was appointed section editor of Cytopathology section of BMC Clinical Pathology journal; Founder Secretary cum treasurer of the Delhi Chapter of Indian Academy of Cytologists.

Dr Aruna Nambirajan got ‘Dr V R Khanolkar Award’ for best published research for paper entitled ‘Study of stem cell marker nestin and its correlation with vascular endothelial growth factor and microvascular density in ependymomas. Nambirajan A, Sharma MC, Gupta RK, Suri V, Singh M, Sarkar C. NeuroPatholApplNeurobiol. 2014 Oct;40(6):714-25.’ in APCON 2014 held at Armed Forces Medical College, Pune from the 4th to 7th of December 2014

Dr Rajni Yadav got ‘Smt Kunti Devi Mehrotra Award’ for best published research work for paper entitled ‘Prognostic value of MIB-1, p53, Epidermal Growth Factor Receptor, and INI1 in childhood chordomas. Yadav R, Sharma MC, Malgulwar PB, Pathak P, Sigamani E, Suri V, Sarkar C, Kumar A, Singh M, Sharma BS, Garg A, Bakhshi S, Faruq M. Neuro Oncol. 2014 Mar;16(3):372-81’ in APCON 2014 held at Armed Forces Medical College, Pune from the 4th to 7th of December 2014

Dr Brijnandan Gupta ‘Prof K C BasuMallick award’ for best research paper presentation at Annual conference of India Society of Pathologists & Microbiologists, at Dec’ 2014 AFMC, Pune

VISITING SCIENTISTS

1. Dr Upender K Kar, David Geffen, School of Medicine, UCLA
2. Dr Sonali Sengupta, Sidney Kimmel Comprehensive cancer Center, John Hopkins, Baltimore, Maryland
3. Dr Patrick Walker and Dr Shree G Sharma, Consultant, Nephropathology Associates, Arkansas, USA

9.30 Pharmacology

Professor and Head

Y.K. Gupta

Professors

V.L. Kumar

Kamal Kishore

N.R. Biswas
(on deputation from 17.2.2014)

S.K. Maulik

D.S. Arya

Additional Professors

Jatinder Katyal

K.H. Reeta

Surender Singh

Jagriti Bhatia

Assistant Professor

Pooja Gupta

Scientists

Sharda S. Peshin

Madhuri Gupta

Thomas Kaleekal

Amita Srivastava

Sunder Singh Samuel

EDUCATION

The department is engaged in the teaching programmes of MBBS (3rd, 4th and 5th semesters), BSc Nursing (Hons), MSc (Pharmacology), MD, PhD and DM (Clinical Pharmacology) courses.

CMEs/Workshops/Symposia/National and International Conferences

The following were organized by the Department:

1. Mini symposium on “Current regulatory frame work in clinical trials”. 25 April 2014. AIIMS, New Delhi.
2. Training Workshop on Software for Pharmacovigilance in Clinical Trials. 18th & 19th November 2014. AIIMS, New Delhi.
3. Webinar on “First Joint CReATE (Clinical Research Advancement towards Excellence) Center Workshop on Ethics, Data – Management, Biostatistics & Pharmacovigilance in Clinical Research”. 26th & 27th November 2014. Conducted in Goa Medical College and live streaming of the workshop was organized at AIIMS, New Delhi, KEM Mumbai and CMC Vellore.

Lectures delivered

Y.K. Gupta: 4

K.H. Reeta: 1

Pooja Gupta: 3

Oral papers/posters presented: 10

RESEARCH

Funded projects

Ongoing

1. Validation of claims of a traditional healer practicing folklore medicine by evaluation the efficacy of his herbal formulation in relevant animal models, YK Gupta, ICMR, 1 year, 2015-2016, Rs. 12,17,314.
2. Establishment of Clinical research Centre (CRRC) for Pharmacovigilance. YK Gupta, PATH (Program for Appropriate Technology in Health), 2 years, 2013-2015, Rs. 59,79,000.
3. Pharmacological Evaluation of Herbomineral Ayurvedic Formulations (AFYs) used in the Prophylaxis of Migraine, YK Gupta, IPCA Laboratories, 4 years, 2011-2015, Rs. 29,61,000.

4. Neuroprotective study of lecranidipine and citalopram in experimental model of stroke in rats, YK Gupta, DST (Department of Science and technology), 3 years, 2014-2017, Rs. 21,03,000.
5. Evaluation of the Frequency of Polymorphisms Affecting Lead & Mercury Toxicity among Children with Cerebral Palsy, YK Gupta, DRDE, Ministry of Defense, Gwalior, 3 years, 2011-2014, Rs. 9,00,000.
6. Validation of claims of traditional healer practicing folklore medicine by evaluation of the efficacy of herbal formulations in relevant animal models, YK Gupta, ICMR, 1 year, 2014-2015, Rs. 26,49,000.
7. Studies on the efficacy of artesunate in experimental model of colorectal cancer, VL Kumar, AIIMS, 2 years, 2014-2016, Rs. 4,00,000.
8. Evaluation of Arjuna [*Terminalia arjuna* (Roxb.)] and Tulsi [*Ocimum sanctum* (Linn.)] in Experimental Pulmonary Artery Hypertension in Rats, SK Maulik, AYUSH, 3 years, 2013 –2016, Rs. 28,73,791.
9. Proteomics and transcriptomic evaluation of the anti hypertrophic and heart failure properties of *Terminalia arjuna* extract, SK Maulik, Department of Science and Technology (DST), 3 years, 2013 -2016, Rs. 8,11,600.
10. Pre-clinical evaluation of anti-hypertensive and cardio-protective action of herbal formulations, SK Maulik, Dabur Research And Development Centre, Dabur India Ltd, 1 year, 2014-2015, Rs. 12,48,584.
11. Study of fibrosis in Heart Failure, SK Maulik, UK –India Education and Research Initiative, 3 years, 2013 – 2016, Rs. 17,00,00.
12. To determine the effect of seizure, zinc administration and antiepileptic drugs on brain and body zinc homeostasis, J Katyal, AIIMS, 2 years, 2014-2016, Rs. 4,56,000.
13. Preliminary pharmacological and safety studies of Homeopathic drugs”, S Singh, Central Council for Research in Homeopathy, AYUSH, Govt. of India, 1 year, 2015 – 2016, Rs. 9,96,240.
14. Evaluation of the potential of edaravone, taurine and their combination in sporadic model of Alzheimer’s disease in rats, KH Reeta, DST, 3 years, 2012 – 2015, Rs. 28,06,000.
15. Study of the efficacy of antiepileptic drug-nano drug delivery systems in experimental animal models, KH Reeta, AIIMS, 1 year, 2014-2015, Rs. 3,50,000.
16. Evaluation of the protective effect of Eugenol on bleomycin –induced pulmonary fibrosis in rats, J Bhatia, AIIMS, 1 year, 2014-2015, Rs. 4,00,000.
17. Evaluation of nephroprotective effect of enalapril, galangin and their combination in cisplatin induced nephrotoxicity in rats, J Bhatia, DST, 3 years, 2013-2016, Rs. 21,60,000.
18. Evaluation of the renoprotective effect of epicatechin gallate, nobiletin and hesperidin in cisplatin induced nephrotoxicity in rats, J Bhatia, DBT, 3 years, 2012-2015, Rs. 37, 72,390
19. Evaluation of nephroprotective effect of Telmisartan in cisplatin induced nephrotoxicity in rats, J Bhatia, AIIMS, 2 years, 2012-2014, Rs. 5,00,000.

Completed

1. Preliminary Pharmacological Studies of Homeopathic Drugs, YK Gupta, Central Council for Research in Homeopathy, AYUSH, Govt. of India, 2 years, 2012 – 2014, Rs. 7,67,000.
2. Herb-drug interaction studies of selected herbs and allopathic drugs used in treatment of Type 2 Diabetes, Rheumatoid Arthritis and Epilepsy, YK Gupta, ICMR, 2 years, 2012 – 2014, Rs. 18,17,000.
3. Effect of traditionally used Ayurvedic rasa aushadhies on renal & hepatic functions: Clinical & Experimental Study, YK Gupta, AYUSH, 3 years, 2011 – 2014, Rs. 6,89,000.
4. Double-blind, randomized placebo controlled clinical trial to study the add-on efficacy of a standardised preparation of the water extract of *Terminalia Arjuna* in patients with Left Ventricular Dysfunction, already receiving standard drug regimen, SK Maulik, DBT, 3 years, 2010 -2013, Rs. 46,06,000.
5. Effect of Bioactive Phytoconstituents in Experimental Metabolic Syndrome, KH Reeta, ICMR, 3 years, 2010-2014, Rs. 29,13,000.

Departmental projects

Ongoing

1. Evaluation of potential of genistein and tigecycline in middle cerebral artery occlusion model of stroke in rats.
2. A study to characterize Bortezomib induced Peripheral Neuropathy, and identify risk factors that may predict its occurrence.
3. Does the pharmacokinetics of metformin alter after sleeve gastrectomy: a quasi-experimental study.
4. Evaluation of interaction profiles of selected medicinal plants with conventional antiepileptic and oral hypoglycemic agent.
5. Neuroprotective potential of lercanidipine and citalopram, having anti-oxidant, anti-inflammatory and calcium channel blocking activity in experimental model of stroke in rats.
6. Pharmacokinetics and pharmacodynamic interaction of an Ayurvedic medicine with antiepileptic drug: An experimental and clinical study.
7. Optimization of traditional herbal ingredients for developing a formulation for Alzheimer's disease: *In vitro* and *In vivo* study.
8. *In vitro* studies on genotoxicity of commonly used organophosphate pesticides and evaluation of therapeutic potential of antioxidant vitamins.
9. Antibiotics, Analgesics and anti-inflammatory drugs prescribing practices and adverse drug monitoring in dentistry: A Questionnaire-based Study.
10. Studies on the phytotherapeutic potential of *Calotropis procera* latex fractions in arthritis.
11. Studies on the safety and efficacy of artesunate in experimental model of colorectal cancer.
12. Studies on the antiulcer properties of artesunate.
13. Studies on the efficacy of roxithromycin in experimental model of ulcerative colitis.
14. Studies on the effect of metformin in experimental models of inflammation and ulcerative colitis.
15. Evaluation of arjuna [*Terminalia arjuna* (Roxb.)] and Tulsi [*Ocimum sanctum* (Linn.)] in experimental pulmonary artery hypertension in rats.
16. A study to assess the prevalence of medication adherence and to compare disease outcome and mortality among adherent and non adherent patients of acute heart failure and chronic heart failure.
17. Adverse effect profile in patients taking antihypertensive medicines: a questionnaire based study.
18. Intensive adverse drug reaction (adr) monitoring of HIV positive patients on highly active anti retro-viral therapy (HAART).
19. Studies on pharmacological and molecular mechanisms to investigate apigenin in streptozotocin induced diabetic nephropathy in rats.
20. Study on metformin in bleomycin-induced pulmonary toxicity in rats.
21. Chronic seizures induced changes in cardiovascular parameters: effect of antiepileptic drug (sodium valproate) and cardiac remodeling agent (losartan) in rats.
22. To study the role of kappa opioid receptors in prevention of epileptogenesis and neurogenesis in lithium pilocarpine and pentylenetetrazole kindling model in rats.

Completed

1. Expression Profile of microRNAs in Chronic Myeloid Leukemia Patients and their Correlation with Imatinib Treatment Response.
2. Effect of antiepileptic drugs on metabolic parameters in obese persons with epilepsy: A cross section comparative study.
3. Focus pharmacovigilance of rituximab.
4. Treatment response to imatinib in chronic myeloid leukaemia: role of P-glycoprotein.
5. Evaluation of *Clitoria ternatea* and *Evolvulus alsinoides* extracts for cognitive impairment in rats.

6. Evaluation of Anti-epileptic property of selected Indian medicinal plants and their mechanism of action.
7. Study of immunosuppressive agents (*Mycophenolate mofetil* and rapamycin) on transient focal cerebral ischemia in rats.
8. Effect of traditionally used Ayurvedic rasa aushadhies on renal & hepatic functions: clinical & experimental study.
9. Effect of antiepileptic therapy on trace element status in Indian population in a tertiary care hospital from northern India.
10. Leaching of metal ions from orthodontic wires in different soft drinks.
11. Evaluation of silymarin on middle cerebral artery occlusion model of focal cerebral ischemia in rats.
12. To study the pharmacokinetic and pharmacodynamic interaction of an Ayurvedic medicine Panchagavya Ghrita with antiepileptic drugs in rats.
13. Studies on the anti-inflammatory and anti-arthritic properties of root proteins of *Calotropis procera*.
14. Studies on the anti-inflammatory and anti-arthritic properties of callus proteins of *Calotropis procera*.
15. Relevance of Catestatin level in Heart Failure Patients in Response to Pharmacotherapy.
16. Role of 5-HT_{2B} receptors in myocardial hypertrophy and infarction in rats.
17. Intensive Adverse Drug reaction monitoring and pattern analysis of observed ADRs in medicine department.

Collaborative projects

Ongoing

1. Comparison of the profile of DNA damage in lymphocytes of neonates with hyperbilirubinemia receiving high versus low irradiance using Light Emitting Diode phototherapy, Pediatrics.
2. Efficacy and safety of concomitant use of nevirapine and rifampicin in patients co-infected with HIV and Tuberculosis in India, Medicine.
3. Development of nanoparticulate anti-TB drug delivery system for macrophage receptor specific targeting through oral and respiratory route: Phase 1, Pathology.
4. Development of multifunctional metallic nanoparticles for cancer targeting, Pathology.
5. Development of targeted nanoparticles based drug delivery system for treatment of kala-azar, Pathology.
6. Effect of rifampicin as a part of antitubercular therapy on antihypertensive drug requirement in patient of renal disease, Nephrology.
7. Studies on the efficacy of artesunate in experimental model of colorectal cancer, Pathology

Completed

1. Once daily dose of Nevirapine vs twice Daily dose of Nevirapine based highly Active Antiretroviral Therapy regime in Antiretroviral naïve patients with HIV and TB infection in India, Dept. of Medicine AIIMS, N.Delhi

PUBLICATIONS

Journals: 34

Abstracts: 16

Chapters in Books: 1

PATIENT CARE

The department is involved in the estimation of a number of metals like heavy metals (Pb, Cd, Hg, As), trace metals and micronutrient levels in biological samples (blood, urine, semen, serum) by ICP-AES (Inductively Coupled Plasma Spectrophotometer JY-2000) at ppb levels.

Therapeutic Drug Monitoring facility

The Therapeutic Drug Monitoring (TDM) Facility in the department of Pharmacology is involved in estimating drug levels of Antiepileptic drugs (Phenytoin, Phenobarbitone, Carbamazepine and Sodium valproate), Anti-cancer/ Anti-rheumatic drug (Methotrexate) and Immunosuppressants (Mycophenolic acid) etc. in patient samples. The TDM facility helps in optimizing drug dosing regimen for the above drugs for the patients and this is useful in

minimizing drug toxicity and maximizing treatment benefit. The TDM facility is also engaged in collaborative projects with various other departments of AIIMS like Pediatrics, Nephrology and Neurology.

National Poison Information Centre

The National Poisons Information Centre (NPIC) in the Department of Pharmacology provides information on management of various poisonings all over the country. The NPIC provides round-the-clock (365 days) updated information on management of poisoning to medical professionals, healthcare personnel and instructions on first-aid to general public. Queries from various government and non-government organizations on different aspects of toxins are also answered. The NPIC has the backup of latest literature on poisoning due to a variety of products that include household items, agricultural and industrial chemicals, drugs, environmental toxins including plants, animal bites and stings and other miscellaneous products. The data received by the centre is compiled and analyzed.

Poisoning Calls received by National Poisons Information Centre, April 2014–March 2015

	n	%
Total no. of calls	2353	
Poisoning Calls	2297	97.62
Information Calls	56	2.37
Sex		
Male	1382	60.16
Female	915	39.83
Categories		
Household Products	1063	46.27
Industrial Chemicals	167	7.27
Agricultural Pesticides	338	14.71
Drugs	510	22.20
Bites & Stings	62	2.69
Plants	57	2.48
Miscellaneous	59	2.56
Unknown	41	1.78

Adverse Drug Reaction Monitoring

The department of Pharmacology is running the Adverse Drug Reaction monitoring Centre. The adverse drug reaction (ADR) data is collected, compiled, assessed and thereafter forwarded to the National Co-coordinating Centre, Ghaziabad. The total number of ADR reports collected during the year were 898. As part of the Pharmacovigilance training activity, webinars and symposiums on Pharmacovigilance were also organized.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Y.K. Gupta was Member, Governing Body, Central Council of Research in Ayurveda & Siddha (CCRAS), Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India; member, Governing Body, Central Council for Research in Unani Medicine (CCRUM), Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India; Member, Board of Directors, Bharat Immunologicals & Biologicals Corporation Limited (BIBCOL), Department of Biotechnology, Ministry of Science & Technology, Govt. of India; Member, Governing Body, Clinical Development Services, Agency (CDSA), Department of Biotechnology, Ministry of Science & Technology, Govt. of India; Chairman, Task Force on Nano Biotechnology, Department of Biotechnology (DBT), Ministry of Science & Technology, Govt. of India; Chairman, Scientific Advisory Committee (SAC), National Institute of Occupational Health of Indian Council of Medical Research, Ahmadabad; Chairman, Institutional Ethics Committee (IEC), National Institute of Malaria Research (NIMR), New Delhi; Chairman, Institutional

Ethics Committee, Rockland Hospital, New Delhi; Chairman, Institutional Ethics Committee, Institute of Nuclear Medicine & Allied Science (INMAS), DRDO, Ministry of Defense, Govt. of India; Chairman, Instructional Ethics committee, IIT, Delhi; Chairman, DSMB for Phase I Clinical Trial of novel chelating agent produced at DRDE, Ministry of Defense, Gwalior; Chairman, Committee of the Ethical consideration involved in Research on Human Subjects, Indian Institute of Technology (IIT), Delhi

Professor Kamal Kishore was Selection Committee member for teaching faculty interviews conducted by Hindu Rao Hospital; Selection committee member for Research associate interviews conducted by ICMR; Member of the Governing Council of IDC Foundation; Member, Subject Expert Committee (SEC), Drugs Controller General (India), New Delhi

Dr Surender Singh was Certified GLP Inspector, National GLP Compliance Monitoring Authority (NGCMA), Department of Science & Technology, Govt. of India, New Delhi; Member, Special Committee for Drugs Standardization, CCRH, Department of AYUSH, Ministry of Health & Family Welfare, Govt. of India; Member, Project Evaluation Committee, CCRAS, CCRUM and CCRH, Department of AYUSH, Ministry of Health & Family Welfare, Govt. of India; Member, Task Force, Standardization of Homeopathic Drugs, CCRH, Department of AYUSH, Ministry of Health & Family Welfare, Govt. of India; Member, Steering Committee (GPAT), AICTE, Ministry of HRD, Govt. of India; Member, Board of Research Studies, GGS Indraprastha University, New Delhi, Hamdard University, New Delhi, Uttar Pradesh Technical University (UPTU), Lucknow and Kumaon University, Uttarakhand and MD University, Rohtak; Member, Animal Ethics Committee, Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi; Chairman, Ethics Committee, Central Research Institute of Homeopathy (CRIH), Department. of AYUSH, Ministry of Health & Family Welfare, Govt. of India; Member, Ethics Committee, CCRH, Department of AYUSH, Ministry of Health & Family Welfare, Govt. of India.

K.H. 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; Peer Review Member, International Journal of Health Research and Medico Legal Practice (IJHRMLP).

9.31 Physical Medicine and Rehabilitation

Professor and Head

U. Singh

Sanjay Wadhwa

Professor

SL Yadav

Gita Handa

Assistant Professor

Srikumar V.

Supervising MSSO

Kiran Bala Singh

Chief Physiotherapist

Avinash Dhargave

Senior Occupational Therapists

Raman Kumar Singh

Lily Farhat Parveen

Senior Technical Officer

Ajay Babbar

HIGHLIGHTS

During the year, two trainees from the Armed Forces were posted for long-term training to our department. An Australian delegation visited our department for talks on collaborative research and to prepare a memorandum of understanding with AIIMS, Delhi. New services in Prosthetics and Orthotics were started for ischial containment sockets and Foot Clinic with insole forming equipment. The department's faculty, officers and resident doctors took active part in collaborative research projects within AIIMS and outside, besides taking part in speaking at the CME programs and patient education programmes through mass media and public lectures. The faculty of the department has been invited by various bodies of the Government and various universities to give their expert opinion for policy making and other tasks.

EDUCATION

Nine postgraduate students are doing MD (PMR). Under-graduate teaching: a set of 8 seminars for the VIII Semester and one for the VI Semester MBBS students was taken by the department. Besides, the students were shown various activities of the department, including a prosthetic and orthotic (P&O) workshop. This workshop was also attended by students of prosthetics and orthotics from two Government of India institutions. Two long term trainees from the Armed Forces took their training in PMR.

Lectures in CMEs/Workshops/Symposia/National and International Conferences

U. Singh: 5

Sanjay Wadhwa: 6

Gita Handa: 2

Srikumar V.: 1

Oral papers/posters presented: 3

RESEARCH

Departmental projects

Ongoing

1. Prolotherapy versus corticosteroid injections for the treatment of plantar fasciitis: a randomized controlled trial
2. Prolotherapy versus corticosteroid injections for the treatment of lateral epicondylitis: a randomized controlled trial

3. Effect of magnetic field on osteoporosis induced by spinal cord injury in rat.
4. Effect of transcranial magnetic stimulation on pain modulation status in fibromyalgia patients
5. Appraisal of needs for rehabilitation in patients with multiple myeloma
6. Effect of motivational video on QOL etc in patients with LL Impairments
7. Human factor & industrial design approach for biomechanical gait analysis studies on load carriage
8. Appraisal of needs for rehabilitation in patients with multiple myeloma
9. Prospective randomized control trial comparing outcome of local steroid injection by ultrasound versus palpation technique in plantar fasciitis
10. Comparison of effect of single dose of intra articular injections of platelet rich plasma and high molecular weight hyaluronic acid in pain reduction and improving quality of life in patients with osteoarthritis of knee
11. Evaluation of bone mineral density in paraplegic patients with spinal cord injury
12. Online speed adaptation of unilateral knee ankle prosthesis
13. Randomized control trial comparing efficacy of diclofenac sodium vs. combination of collagen peptide type I, chondroitin sulphate, sodium hyaluronate and Vitamin C in Achilles tendinopathy
14. Prospective randomized control trial to compare outcome of ultrasound guided suprascapular nerve block versus intra-articular steroid injection in adhesive capsulitis of shoulder
15. Evaluation of reflexology as an adjunct therapy in children with spastic cerebral palsy
16. Effect of dual-task exercise in conjunction with fluoxetine & intracranial direct current stimulation on postural stability and gait in stroke patients
17. A study to assess the effectiveness of muscle strengthening and balancing exercises on chemotherapy induced peripheral neuropathic pain and quality of life among cancer patients

Completed

1. A Study of the upper gastrointestinal disorders in patients with spinal cord injury under rehabilitation care
2. Study of comparison of various disability scales in conservatively treated patients of acute prolapsed intervertebral disc
3. A study to evaluate the efficacy of supervised exercise training programme in patients suffering from peripheral arterial disease of the lower limb attending the surgical outpatients department in a tertiary care centre

Collaborative projects

Ongoing

1. Role of vitamin D supplementation in vitamin D deficient COPD patients: a double blind, randomized controlled trial (Departments of Medicine and Endocrinology)
2. Prevalence of shoulder periartthritis in patients with type 1 diabetes mellitus attending tertiary care center AIIMS (Department of Endocrinology)
3. Design of artificial hand with artificial fingers (North Eastern Hill University, Shillong)
4. Design of smart functional electrical stimulator for physically challenged persons (Department of Biomedical Engineering, CRUST Murthal, Sonipat)
5. Randomized placebo controlled trial of valproate and levocarnitine in children with spinal muscular atrophy aged 2-15 years (Department of Pediatrics)

PUBLICATIONS

Journals: 2 Chapters in Books: 7 Books: 1

PATIENT CARE

Facilities available in the department

New Patients

OPD (Physician Consultations) 18997 Prosthetics and Orthotics 5693 Ballabgarh PMR OPD 9567
Total New Cases 34257

Old Cases

OPD Old cases (Physician consultation)	19942	Disability Evaluation Clinic	232
Railway Concession Certificates	267	OPD visits (PT Section)	17039
OPD visit (OT Section)	17723	OPD visit (MSW)	11166
OPD visit (P & O Clinic)	14023	Minor OT procedures	2292
Major Surgeries at Ballabgarh OT	11		
Total Old Cases	82695		

Grand Total for the Year 116952

New Services added:

- **Musculoskeletal Ultrasound Clinic for point of care diagnosis and intervention** has been started with the institution of new equipment to form insoles for foot deformities. The clinic is held on every Monday in the prosthetic and orthotic workshop of the department.
- **Ischial Containment Sockets** for the above knee prosthesis facility has been started in the department.

Ongoing Clinics

- Disability Evaluation Clinic
- Brace Check Out Clinic
- Case Conference: Discussion of long term rehabilitation patients for goal setting and treatment evaluation.
- Gym Round Clinic: Evaluation of the therapy of the 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: The departmental faculty has participated in a number of live phone-in television programs on various topics of general interest for patient education on the TV programs: Total Health on DD News and Lok Sabha TV, Doordarshan; e.g. **Dr. Sanjay Wadhwa** delivered the following talks: Sports Injuries (15th June, 2014), Stroke (Brain Attack) (25th October, 2014), Arthritis (26th October, 2014), and Healthy Lifestyle (4th January, 2015). Besides, the departmental faculty also participated in two lectures held in the series of public health lectures held at AIIMS, New Delhi: e.g. **Dr. Sanjay Wadhwa** participated in the public lecture & panel discussion on 'Arthritis' (28th October, 2014; AIIMS, New Delhi) and 'Symposium on Amputation' (Trauma-2014; 30th November, 2014, AIIMS, New Delhi).

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor U. Singh won First Prizes in Hindi Essay Competition and in Hindi Dictation work for Non-Hindi speaking faculty, during Hindi Fortnight at AIIMS, September 2014. He is Chairman, Academic Committee of the Indian Association of Physical Medicine and Rehabilitation; Emeritus Editor of the Indian Journal of Physical Medicine and Rehabilitation; Consulting Editor and reviewer for the Journal of Rehabilitation Council of India and Locomotor and Associated Disabilities; Editorial Board Member, Indian Journal of Physiotherapy and Occupations Therapy; and Editorial Board Member, Indian Journal of Physiotherapy and Occupations Therapy, and International Journal of BioSciences and Technology; Advisory Board Member of St John's Handbook of Physical Medicine and Rehabilitation (Bengaluru, August 2013); and Senior Editor of Astrocyte, the multispecialty journal of National Board of Examinations (from December 2013). He is a peer reviewer for Annals of Indian Academy of Neurology, Indian Journal of Neuro-surgery, Journal of American Academy of Physical Medicine and Rehabilitation. He chaired the following scientific session: Symposium on Exploring New Horizon in Spine Research (Indian Spinal Injuries Centre & University of Heidelberg, Germany, 25th April, 2014; New Delhi), IPARM Clinical Meet (9th

May, 2014; New Delhi), IAPMRCON-2015 (30th January – 1st February, 2015; Trivandrum). He was the Chief Guest at the Valedictory Function for the Delhi PMRCon-2015, 14th – 15th March, 2015; new Delhi). He serves as the Chairman of Ethical Committee and Research Review Committee of the Indian Spinal Injuries Centre, New Delhi; and member, Research Committee, Guru Nanak Dev University, Amritsar; and member, Academic Committee, National Institute for the Orthopaedically Handicapped, Kolkata.

Professor Sanjay Wadhwa served as the Dean, Faculty of Physiotherapy, Baba Farid University of Health Sciences, Faridkot, Punjab (till January, 2015). He is the Chairman, Artificial Limbs, Rehabilitation Appliances and Equipment for Disabled, Sectional Committee (MHD 09), Bureau of Indian Standards, GOI; Honorary Secretary to NAMS (till 3 November, 2014); and a member of the Medical Equipment & Hospital Planning Division Council (MHDC), Bureau of Indian Standards, GOI; Programme Advisory & Monitoring Committee for the TIDE Programme, DST; Working Group on 'Research in Disability', ICMR; Standing Committee on Management, Disciplinary Committee and Publication Advisory Committee of NAMS. He visited the Maharaj Vinayak Global University, Dhand, Jaipur on behalf of UGC (21st January, 2015) to verify the compliance report by the University; and the Vydehi Institute of Medical Sciences, Hyderabad (18th September, 2014) on behalf of NBE. He is the National Advisor for Indian Journal of Geriatric Care; and member of the Editorial Board for Annals of NAMS. He served as a member of the Interview Board of UPSC for selection of Assistant Professors in PMR; and as member of the Institutional Review Board of National Institute of Public Cooperation and Child Development, New Delhi. He conducted the convocation during the NAMS Annual Conference at AIIMS, Rishikesh (18th October, 2014).

Professor Gita Handa is a member of the UGC expert committee for evaluation and assessment of the proposals for availing travel grant assistance to attend international conferences abroad; Selection Committee for faculty appointments at AIIMS Bhubaneswar, and LHMC, New Delhi; and Expert Panel for 'Brainstorming Session on Robotics in Medicine' organized by DBT at Trivandrum

Dr Srikumar V. won 3rd prize for Hindi essay writing competition (Non-Hindi speaking category) on Hindi Diwas celebration (2014) at AIIMS. He is the Treasurer of the Indraprastha Association of Rehabilitation Medicine and was the Treasurer for DelhiPMRCon-2015; and an Executive Committee Member of the Indian Association of Rehabilitation Medicine.

Mr Ajay Babbar is a member of the Artificial Limbs, Rehabilitation Appliances and Equipment for Disabled Sectional Committee (MHD 09), Bureau of Indian Standards, GOI; and expert member to the Technical Standing Committee of CGHS.

Mr Avinash Dhargave was nominated as Organizing Chairperson for 3rd International Conference of Physical Therapy (17th – 18th December, 2014).

VISITING SCIENTIST

The Australian delegation from University of Sydney visited AIIMS and had discussions with the Director and the Dean AIIMS regarding MOU between two institutes for various collaborative research proposals. The members of delegation were:

- Prof Kathryn Refushage - Dean, Faculty of Health Sciences, University of Sydney
- Claire Hiller - Research Fellow
- Andrew Lever - Research Fellow.

9.32 Physiology

Professor and Head

Rashmi Mathur

Professors

Kishore Kumar Deepak
Kanwal Preet Kochhar

Hrudananda Mallick
Ratna Sharma

Debarata Ghosh
Nalin Mehta

Additional Professors

Suman Jain
Raj Kumar Yadav

Ashok Jaryal
Anjana Talwar

Assistant Professors

Asmita Patil

Renu Bhatia

Simran Kaur

HIGHLIGHTS

The department of Physiology has been involved in undergraduate and post graduate 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 symposiums at AIIMS and other institutions. The faculty undertook 18 extramural and intramural research projects in various areas including neurophysiology (including autonomic nervous system), nutrition, vascular physiology, reproduction, respiration and yoga. The research outcomes were presented in both national/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 surgery, and yogic intervention. Several awards and honours have been received by faculty members and the students of the department in appreciation of their innovative contributions in physiology research and medical education. The department organized meeting of the Delhi chapter of APPI on 9th Jan 2015 for felicitation of Prof Usha Nayar (former Prof and Head, Department of Physiology, AIIMS, New Delhi) with lifetime achievement award. The meeting also featured revival of Delhi chapter of APPI and elections for Delhi chapter of APPI.

EDUCATION

- Undergraduate teaching:** 100 hours
Postgraduate teaching: MSc, MD, PhD
- BSc Nursing and allied Courses:** 60 hours
- Short term Training**

The Reproductive and molecular biology laboratory provided short-term training to one MSc from Maharshi Dayanand University (23 June to 22 July 2014), Rohtak and 1 Assistant Professor from Government Medical College, Srinagar (15 December 2014 to 14 March 2015).

Integral Health Clinic provided short-term training to two B Tech students from Netaji Subhash Institute of Technology, Dwarka, New Delhi (2 June – 1 July 2014) and University Institute of Engineering & Technology, Rohtak (2 July to 31 July 2014) respectively.

CMEs/Workshops/Symposia/National and International Conferences organized by the department

Conference on Mind, Medicine & Meditation: An evidence based update MMMCON 2014, supported by ICMR, AYUSH, Ministry of Health & Family Welfare, SERB (DST) and CSIR (Organizing Secretary: Dr Raj Kumar Yadav, Joint Secretary: Dr Renu Bhatia) AIIMS, New Delhi; 15-16 April, 2014.

Lectures delivered

Rashmi Mathur: 2
N. Mehta: 10

K.K. Deepak: 15
A. Jaryal: 10

H.N. Mallick: 6
R.K. Yadav: 10

D. Ghosh: 2

Oral papers/posters presented : 31

Won Best paper awarded, Best PG award, Harish Gupta Award, R Shreenivashan Award, and Award presentation (poster): Third prize

RESEARCH

Funded projects

Ongoing

1. A study of cardiac and vascular autonomic mechanisms underlying the pranayama practices, K K Deepak, CCRYN, 2years, 2013-15, Rs. 17,64,138/-
2. Design and development of centralized system on heart rate variability analysis, K K Deepak, Media Lab Asia, 2years, 2015-17, Rs. 47,60,800/-
3. Role of the preoptic area thermo TRPV channels in thermoregulation of rat, H N Mallick, ICMR, 3years, 2014-2016, Rs 15,00,000/-
4. Role of dietary glutamate on thermogenesis and sleep in rats, H N Mallick, Ajinomoto Co Inc, Japan, 3.5years, 2011-July 2014, Rs 18,96,900/-
5. Cellular and molecular basis of action of cationic α -helical antimicrobial peptide on human placental cytotrophoblast cells, D Ghosh, ICMR, 3.5 years, 2012-2015, Rs. 41,58,457/-
6. Understanding endometriosis using high throughput proteomics strategy, D Ghosh, DST, 5years, 2010-2015, Rs. 35,00,000/-
7. Molecular basis of cationic anti-microbial peptide action on human cytotrophoblast cell lines, Nalin Mehta, AIIMS, 1 year, 2014-2015, Rs. 4,95,000/-
8. Functional development of the visual cortex following prenatal repetitive auditory stimulation in chicks (*Gallus domesticus*): role of noradrenaline, Suman Jain, DST, 3years, 2011-14, Rs. 23,12,000/-
9. Prospective study to evaluate the impact of bariatric surgery on glucose metabolism using biomarkers in obese patients, Raj Kumar Yadav, ICMR, 3 years, 2012–15, Rs 29 lakhs
10. Efficacy of yoga as an adjunct therapy to modify fatigability and stress in breast cancer patients: A randomized controlled trial, Raj Kumar Yadav, AIIMS, 1 year, 2014-15, Rs. 500,000/-
11. Multi-analyte profiling of plasma biomarkers in patients with stable COPD and their correlation with clinical parameters: A Pranayama based study, A Talwar, CSIR, 3 years, 2013-16, Rs 23,60,000/-
12. Genome-wide gene profiling using array based comparative genomic hybridization and global gene transcript profiling of respiratory tract macrophages in stable COPD patients , A Talwar, DST, 3 years, 2013-16, Rs 50,00,000/-
13. In-vitro study of the molecular nature of paracrine interaction between the testicular Sertoli and germ cells of immature and mature male mice, A Patil, AIIMS intramural project, 1 year, 2014-15, Rs 4,50,000/-
14. Effect of transcranial magnetic stimulation on pain status of chronic tension type headache patients, R Bhatia, AIIMS intramural project, 2 years, 2014-16, Rs 2,50,000/-

Completed

1. Adipokine mediated inflammation, angiogenesis and proteomic approach in pathophysiology of pelvic endometriosis, Raj Kumar Yadav, AIIMS, 1 year, 2013-14, Rs 500,000/-
2. A study of quantitative EEG changes, cognitive function and stress in mild cognitive impairment and Alzheimer's disease, Ratna Sharma, DST, 4.5 years, 2010-14, Rs 82,00,000
3. Quantitative EEG correlates of Cognitive deficits in Parkinson Disease, Ratna Sharma, DBT, 3.5 years, 2011

Departmental projects

Ongoing

1. Effect of transcranial magnetic stimulation on pain modulation status in fibromyalgia patients.
2. Effect of frequency and amplitude dependent oscillations of arterial blood pressure on dynamic cerebral autoregulation.
3. Role of the preoptic area thermo TRPV channels in thermoregulation of rat.
4. The mechanism of thermogenesis induced by glutamate in the gut and in the preoptic area.
5. Electrophysiological characterization of 'Yoga nidra' and its role in primary insomnia patients.
6. Effect of physiological challenges on regional brain temperature in rats.
7. Molecular basis of estrogenism in endometriosis.
8. A study of transcriptomic landscape of ovarian endometriosis.
9. In-vitro action of cationic antimicrobial peptide on cytokine profiles of early placental cytotrophoblast.
10. In-vitro generation of induced T-regulatory cells in chronic obstructive pulmonary disease.
11. A transcriptomic study of elucidate the pathophysiological basis of chronic obstructive pulmonary disease.
12. Molecular basis of cationic anti-microbial peptide action on human placental cytotrophoblast cells.
13. Quantitative EEG correlates of cognitive performance in Mild Cognitive Impairment and Alzheimer's Disease.
14. Quantitative EEG correlates of cognitive deficits in Parkinson Disease.
15. Quantitative EEG correlates of positive, negative and neutral affect on cognitive functions and associated psychological stress response.
16. Quantitative EEG correlates of the Effect of Music on Cognitive Interference.
17. Evaluation of autonomic functions in patients of spinocerebellar ataxia types 1,2 and 3 & comparison with morphological changes in brain.
18. Evaluation of vascular functions baroreflex sensitivity & Biochemical factors to investigate preeclampsia.
19. Assessment of autonomic and vascular function before and after tumor removal in patient with pheochromocytoma.
20. Effect of frequency and amplitude dependent Oscillations of arterial blood pressure on dynamic cerebral autoregulation.
21. Effect of Angiotensin converting Enzyme inhibitor on autonomic vascular & endothelial function in diabetics with newly diagnosed hypertensive.
22. Evaluation of autonomic tone, vascular and endothelial function in myocardial on Infraction patients undergoing yoga based cardiac rehabilitation.
23. Efficacy of yoga based lifestyle intervention as compared to dietary intervention on metabolic syndrome: A randomized controlled trial
24. Understanding the pathophysiology of endometriosis by protein profiling and its correlation with stress
25. Effect of vitamin D supplementation on pancreatic beta cell functions in obese Indian subjects: A randomized controlled trial
26. Effect of meditation on sleep architecture .
27. Effect of rTMS on central and peripheral pain modulation in chronic tension- type headache.
28. A study of Psychoneuroimmunological correlates of fibromyalgia: Effect of rTMS.
29. Quantitative EEG correlates of emotion induced changes in cognitive performance in healthy volunteers.

Completed

1. Study of chronic exposure to magnetic field on pain status of fibromyalgia patients.

2. Effect of magnetic field on oxidative stress in rat Parkinson's model.
3. Effect of magnetic field on microglia induced secondary injury of spinal cord in rats.
4. Influence of complete spinal cord injury on ventromedial hypothalamic function: Role of magnetic field.
5. Effect of magnetic field on behavioral, electrophysiological and neurochemical correlates of pain in rats exposed to 3G frequency band.
6. Effect of extremely low frequency magnetic field on spinal cord injury induced osteoporosis in rat model.
7. Effect of superparamagnetic nanoparticle implantation in 6-OHDA rat model of Parkinson's disease: role of magnetic field stimulation.
8. Neuroregeneration Following Implantation of Iron Oxide Nanoparticle Along With Magnetic Field Exposure in Spinal Cord Injured Rats.
9. Effect of magnetic field exposure on transition from acute to chronic pain in rat model of spinal cord injury.
10. Functional Recovery in 6-OHDA Rat Model of Parkinson's Disease Following Superparamagnetic Iron Oxide Nanoparticle Implantation.
11. Interrelationship between, body, muscle and brain temperature during sleep.
12. Cognitive Control of saccadic eye movements in Normal subjects and Parkinson's disease: A Behavioral, Event related Potential and Functional Magnetic Resonance Imaging Study.
13. Electrophysiological and behavioural development of visual system following prenatal repetitive auditory stimulation in chicks (*Gallus domesticus*).
14. A comparative study of the cardiovascular responses to orthostasis in Parkinson's disease and Multiple System Atrophy of Parkinsonian type (MSA-P).
15. Effect of preload reduction on cardiovascular response to Valsalva maneuver.
16. Assessment of vascular function in patients of metabolic syndrome with and without coronary artery disease.
17. To study the temporal changes in cardiovascular responses during blood donation.
18. Leptin and ghrelin in peritoneal fluid of patients with endometriosis: correlation with VEGF and IL 6.
19. In-vitro action of cationic antimicrobial peptide on early placental villous cyto- trophoblast cells.
20. Effect of working memory load on visuospatial task performance as assessed by quantitative EEG.
21. Quantitative EEG correlates of perceptual reversal of emotional stimuli during binocular rivalry.

Collaborative projects

Ongoing

1. Role of human umbilical cord blood stem cells and neural stem cells in neuronal regeneration and functional restoration: A comparative study in male adult rats with acute spinal cord injuries. , DBT funded, Neurosurgery Dept., JPNA Trauma Center, AIIMS, New Delhi.
2. Cuff less Noninvasive Blood Pressure Measurement using Radial Arterial Pressure Patch, INDO-US Science and Technology Forum.
3. Study of Effect of Magnetic Field Exposure on Red Blood Cells and Blood Flow in Humans, IIT, Delhi.
4. Robotic Hand Assisted Transcranial Magnetic Stimulation therapy for Neurorehabilitation, IIT, Delhi.
5. Evaluation of autonomic functions in patients of spinocerebellar ataxia types 1,2 and3 & comparison with morphological changes in brain., Neurology, NMR, AIIMS.
6. Evaluation of Vascular functions baroreflex sensitivity & Biochemical factors to investigate preeclampsia., Obstetrics and Gynecology, AIIMS
7. Assessment of autonomic and vascular function before and after tumor removal in patient with pheochromocytoma, Endocrinology, AIIMS.
8. Effect of Angiotensin converting Enzyme inhibitor on autonomic vascular & endothelial function in diabetics with newly diagnosed hypertensive, Endocrinology, AIIMS.

9. Evaluation of autonomic tone, vascular and endothelial function in myocardial on Infraction patients undergoing yoga based cardiac rehabilitation, Cardiology, AIIMS.
10. Expression analysis of potential micro RNAs in tuberculosis, Medicine, AIIMS, New Delhi.
11. Impact of local endometrial injury (LEI) on the outcome of IVF cycle with previous failed implantation: Exploring the Genome wide transcriptomic basis, Obstetrics & Gynaecology, AIIMS, New Delhi.
12. Isolation & molecular characterization of colorectal cancer stem cells, Biochemistry, AIIMS.
13. Study of autonomic functions in Non alcoholic fatty liver disease, Medicine, AIIMS.
14. A Prospective study to evaluate the EMG changes in digastric and Mylohyoid muscle complex area following genial distraction in retrogenia patients, Centre of Dental Education and Research, AIIMS.
15. Assessment of Arterial Stiffness and Autonomic function before and after Renal Transplantation, Nephrology.
16. Impact of nutritional and lifestyle modification in subjects with BMI 25-29.9kg/m² vs 30-34.9 kg/m² and to assess the effect of bariatric surgery in BMI e²35kg/m², Department of Surgical disciplines, AIIMS, New Delhi.
17. Impact of supervised diet and lifestyle modifications on weight loss, body fat distribution and insulin resistance in adult Indian obese patients, Dept of Surgical disciplines, AIIMS, New Delhi.
18. Role of cytokine levels in recurrent pregnancy loss and effect of progesterone on cytokine levels. , Dept of Obstetrics & Gynaecology, AIIMS, New Delhi.
19. To study the impact of laproscopic sleeve gastrectomy on type 2 diabetes mellitus in patients with BMI < 35kg/m², Dept of Surgical disciplines, AIIMS, New Delhi.
20. Effect of yoga based lifestyle intervention on biomarkers of cellular aging in patients with depression, Dept of Anatomy, AIIMS, New Delhi.
21. Role of Yoga based intervention as an adjunct in improving quality of life of glaucoma patients, RPC, AIIMS, New Delhi.
22. Study of potential modulator targeting pathways involved in the hyperphosphorylation of tau in Alzheimer disease, Dept of Biophysics, AIIMS, New Delhi.
23. Postural variation of diffusing capacity in Type 2 Diabetes Mellitus: marker of lung microangiopathy, Department of Endocrinology, AIIMS.
24. Effect of exercise intervention on bone mineral density in Cystic Fibrosis patients aged 6-18yrs, Department of Pediatrics, AIIMS.
25. Exhaled Breath Temperature as a marker of Airway Inflammation in Asthma patients and relation with blood biomarkers, Department of Pulmonary Medicine, AIIMS.

Completed

1. Assessment of Systemic Vascular Autonomic tone, structural and functional outcome in central serous chorioretinopathy, Ophthalmology, AIIMS.
2. Cardiovascular autonomic dysfunction in children aged 2 to 18 years with Rett syndrome: A cross sectional study, Pediatric Neurology, AIIMS.
3. A comparative study of the cardiovascular responses to orthostasis in Parkinson's disease and Multiple System Atrophy of Parkinsonian type (MSA-P), Neurology, AIIMS.
4. Effect of preload reduction on cardiovascular response to Valsalva maneuver, Cardiology, AIIMS.
5. Assessment of vascular function in patients of metabolic syndrome with and without coronary artery disease, Cardiology, AIIMS.
6. To study the temporal changes in cardiovascular responses during blood donation, Transfusion Medicine, AIIMS.
7. A pilot study on micro RNA expression pattern in Wilms' tumor samples and peripheral blood: Relation to histopathology classification and stage, Pathology Department, AIIMS, New Delhi.

8. Identification of biomarkers in Parkinson's disease using NMR, NMR, AIIMS, Effect of administration of human bone marrow derived mesenchymal stem cells on the expression level and promoter methylation pattern of stroke related genes in middle cerebral artery occlusion model of stroke in rats, Neurology, AIIMS.
9. Assessment of Systemic Vascular Autonomic tone, structural and functional outcome in central serous Choroidopathy, Ophthalmology, AIIMS.
10. Cardiovascular autonomic dysfunction in children aged 2 to 18 years with Rett syndrome: A cross sectional study, Pediatric Neurology, AIIMS.
11. Comparison of Nasopharyngeal Pressures delivered during HHHFNC versus nasal CPAP as a mode of Non Invasive respiratory support in preterm neonates - A Pilot Study, Neonatology Division, Pediatrics, AIIMS.
12. Exhaled Breath Temperature as a marker of Airway Inflammation in Cystic Fibrosis patients aged 6-18 yrs, Department of Pediatrics, AIIMS.

PUBLICATIONS

Journals: 38

Abstracts: 17

Chapters in books: 5

Books: 1

PATIENT CARE

Neurophysiology Research Laboratory offered objective assessment of pain and pain modulation status by a battery of electro physiological and biochemical tests for 95 select, referred patients of chronic pain. Relief in pain <6 months was successfully provided by transcranial magneto therapy. Transcranial Magnetic Stimulation Lab (rTMS) Laboratory in the department is a facility for assessment and treatment of chronic pain patients such as fibromyalgia, rheumatoid arthritis and chronic tension type headache patients of fibromyalgia have been assessed for pain status both objectively and subjectively and recently headache patients are also being assessed by RIII reflex and endogenous opioid system assessment along with administration of rTMS therapy for pain relief. Cognitive function assessment is also being done for patients of fibromyalgia and measurement of BMI and lean body mass in patients of metabolic syndrome and vitamin D insufficiency.

Autonomic function lab and vascular function lab provide diagnostic facility for referred patients. The lab provides routine tests for autonomic reactivity along with autonomic tone quantification and non-invasive recording of gastric motility (electrogastrography, EGG). A total number of 1,243 humans have been tested for autonomic function test this year, which included 1160 patients and 83 healthy subjects.

The intraoperative neuromonitoring support was provided to Department of Orthopaedics during deformity corrective surgeries (112 surgeries) in the year 2014. Similar Intra-operative Neuromonitoring Support was provided for a few selected surgeries in the Department of Neurosurgery and Trauma Center.

Integral Health Clinic (IHC) is a facility for mind, medicine & meditation integration primarily for health promotional activities. IHC is an outpatient facility which is used not only for therapeutic gains but also as part of a developing health consciousness. As a de-stressor facility, the IHC is a supportive facility to de-stress AIIMS employees including faculty, students, residents and staff. A total of 438 (four hundred and thirty eight) subjects (with follow-up visits) were enrolled and benefited at IHC during the year 2014 -2015. This includes patients of chronic diseases (like diabetes, obesity, cardiovascular diseases, chronic depression, etc) and, referred patients from different departments of AIIMS (Cardiology, Surgical disciplines, Psychiatry etc.) Management of patients suffering from stress related lifestyle diseases as a part of the team working in the Integral Health Clinic, Department of Physiology.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Rashmi Mathur was Member, International Organization /Committee Members, "Controversies on Electromagnetic Field in Medicine and Biology", Samsun, Turkey; Member, Indian National Committee (INCURSI), Commission K, Regional Conference on Radio Science 2014 (RCRS2014) from Jan. 2-5, 2014 at Symbiosis Institute of Technology, Lavalle, Pune; Member, Commission K of Indian National Committee for International Union of Radio Science; Member, Board of Studies in Physiology, Banaras Hindu University, Varanasi; Expert, Postgraduate Board of Studies in Physiology, Pandit Bhagwat Dayal Sharma University of Health Sciences, Rohtak; Member, Committee for the Ethical consideration involved in Research on Human Subjects, Indian Institute of Technology Delhi, New Delhi; Subject expert for the XII Five Year Plan Programme, Defence Institute of

Physiology and Allied Sciences, Delhi; Expert Member for Peer Review of XII Five Year Plan Programme on “Facilitating performance in military environment: Systems biology approach” Defence Institute of Physiology & Allied Sciences (DIPAS), New Delhi; Expert Member for 25th Specialist Panel meeting on Environmental Physiology & Behaviour (EP&B) of Life Sciences Research Board (I.S.R.B), 2013.

Professor K.K. Deepak Received the “30th Dr. S Radhakrishnan Memorial National Teacher Award 2014” by All India Freelance Journalist & Writer’s Association; Chairman, Central Recruitment Committee, Research Section, AIIMS; Co-chairman, Store Purchase Committee, AIIMS; Chairman, Negotiation Committee, AIIMS; Chairman, committee for completing tender process of AIIMS Examination Portal, AIIMS; Expert member, Selection Committee (Faculty posts), Union Public Service Commission, New Delhi; Foreign external examiner for Physiology, First Professional MBBS Examination MAHSA University, Kuala Lumpur, Malaysia; Serving as Executive Editor, Indian Journal of Physiology and Pharmacology, AIIMS; Special Invitee, Advisory Council of the AIIMS Student’s Union Elections for the Year 2015, AIIMS; Member, Committee to formulate new guidelines for appointment/absorption into research cadre, AIIMS; Member, the sub-committee for conversion from Annual Confidential Reports form to Annual performance appraisal report of scientist cadre, AIIMS; Expert member for ad-hoc research schemes and research fellowships for financial assistance through its Project Review Committee; Member, Faculty Selection Committee, Jamia Hamdard, New Delhi; Expert for Constitution of Expert Panel for Bio-technologies, at National Research Development Corporation (NRDC), DSIR; Member of Advisory Committee of All India Pre-Medical/Pre-Dental Entrance Test (AIPMT), 2015, CBSE; Member, Committee on Inclusion of “Communication skills” at AIIMS; External Examiner for UG Medical Education, Physiology at AIIMS, Raipur; Member Committee on Intraoperative Neurophysiological Monitoring (MEP & SSEP) in Cardiac and aortic Surgery CNC, AIIMS; Member, Project Review Committee at ICMR, New Delhi; External examiner for conducting the Practical/Viva Voce Examination at Department of Physiology, King George’s medical University, Uttar Pradesh, Lucknow; Member working group on Medical Device development, Constituted jointly by ICMR-DHR. Also convened at following workshops (i) Convener of MCQ Workshop and to advice the format and agenda of the workshop. (King George’s Medical University, Lucknow, UP; 19 August 2014; (ii) Convener of Workshop on Assessment of Autonomic Function in Human beings..Guwahati Medical College, Guwahati; 16 June 2014; (iii) Convener of Workshop on “OSPE & OSCE” at Faculty development workshops/lecture series. (CMET, AIIMS, New Delhi; 13 November 2014; (iv) Convener of Workshop on “Basic Course in Medical and Health Profession’s Education” held on 25-27th May 2015, organized by CMET, AIIMS, New Delhi; (v) Convener of Workshop on “Writing a Scientific Paper (CMET with NMJI) for AIIMS Faculty at Faculty development workshops/lecture series. CMET, AIIMS, New Delhi; 29 - 30 August 2014.

Professor H.N. Mallick Won the Life Time Achievement award for dedicated and outstanding service in the field of sleep medicine by Physicians of America of Indian Origin –Sleep; R Srinivasan Award for PhD student (Trina Sengupta) during APPICON 2014 for best postgraduate paper presentation; President: Asian Sleep Research Society for 2013-2016; President: Indian Society for Sleep research 2015-2017; Finance Secretary: Association of Physiologists and Pharmacologists of India 2013-2015; Member Governing Council World Sleep Federation Also convened at following workshops: (i) 2nd Summit of Asian Sleep Research and Sleep Medicine. Singapore; 18 April 2014; (ii) 8th Asian Sleep research Society Congress. Kovalam; 22-25 September 2014; (iii) Third Sleep Technology Workshop. AIIMS, New Delhi 26-27 September 2014; (iv) CME on Sleep Medicine. Puri; 19 November 2014.

Professor D. Ghosh Meeting Attended: Attended 10th meeting of PAC – Health Sciences held at JSS Medical College of Pharmacy, Rocklands, Ootacamund, Tamil Nadu from 9-11 May 2014. External Examiner: Conducting the examination for the post of PG Degree (M.D. Physiology) at R.G. Kar Medical College, Kolkata from 22nd April 2014 to 25th April 2014; Conducting the examination for the post of PG Degree (M.D. Physiology) 2014 at Institute of Postgraduate Medical Education & Research from 24th April 2014 to 25th April 2015; Conducting the examination for the post of PG Degree (M.D. Physiology) at GMC, Srinagar on 28 and 29 May 2014.

Prof. K. P. Kochhar

1. Felicitated as Woman Scientist achiever for Medical Nutrition in the International Conference on Community Health and Nutrition held at Jalandhar on Woman’s Day 8th March 2015 organized by The Society for Clinical Nutrition and Metabolism, IAPEN Jalandhar Chapter, Punjab.

2. Felicitated as Proud Parent and invited to give inspiring lecture on Opportunities and Challenges in managing Asperger's Syndrome: Parental perspective ON Workshop on "Management of Childhood Neuro developmental Disorders with special focus on Indian tools in support of RBSK and ECI in India at India Habitat Centre from 1st to 3rd December 2014.
3. Founder member of Health related information dissemination amongst youth (HRIDAY) for school health education in India.
4. Faculty in-charge of Department Website. Looking after the departmental animal house, cleanliness and housekeeping and coordinating with Sulabh workers. Counselling motivating and mentoring MBBS and Nursing students through the year.
5. Invited to Chair a session as Faculty in the North Central Region Workshop for Sensitization & Awareness on National Medical College Network, Ministry of Health & Family Welfare, Government of India held on 13th 14th March 2015. Organized by Telemedicine Facility, AIIMS, New Delhi
6. Invited as Plenary member for Panel discussion Yoga & Lifestyle in the Conference on Mind, Meditation and Medicine held on April 15-17, 2014 at JLN Auditorium, AIIMS
7. Also convened at following workshops-
 - Hindi Play on 'Importance of Physiology and Nutrition for Healthy diet and Lifestyle related Disease prevention', with Dr. Asmita Patil and residents of the department for all visitors to the health exhibition held on Institute Day, 25-26th September 2014. (Convenor : K.P. Kochhar).
 - Poster presentation on Healthy Lifestyle and display of Educational Material, kits and games for School students and visitors. (Convenor : K.P. Kochhar).
 - Stall for measurement of BMI and body composition analysis and Diet and lifestyle related advice for staff students and faculty of AIIMS and public visitors and school students on Institute Day of the AIIMS. (Convenor : K.P. Kochhar).

Prof. N. Mehta

1. Member, Board of Studies, School of Medicine and Paramedical Health Sciences, Guru Gobind Singh Indraprastha University, New Delhi.
2. Member, Expert Committee constituted by the Hon'ble Vice Chancellor of the Sri Guru Gobind Singh Indraprastha University, New Delhi to inspect the facilities at the 'Rajiv Gandhi Cancer Institute & Research Centre', New Delhi for eligibility as a research center for Ph.D programs.
3. Chairman, 'Institutional Ethics Committee - Human Research (IEC-HR), University College of Medical Sciences, University of Delhi, Delhi.
4. Chairman, 'Institutional Ethics Committee' of Central Council for Research in Yoga and Naturopathy (CCRYN), New Delhi
5. Member, Institutional Ethics Committee for Research on Human Subjects, Dr. Ram Manohar Lohia Hospital & PGIMER, New Delhi.
6. Member: Independent Ethics committee, International Clinical Epidemiology Network (INCLIN), New Delhi.
7. Member, Institutional Ethical Committee of Pratham Education Foundation - Annual Status of Education Report (PEF-ASER) Centre, New Delhi.

Dr. S. Jain

1. Third prize in "AIIMS Research Excellence Award"

Dr. A. Jaryal

1. Siddhartha Debnath Memorial Oration Award Physiological Society of India (Estt. 1934), Received at 102nd Indian Science Congress, 2015.
2. AIIMS Excellence Research Award Commendation Certificate (Basic Research). All India Institute of Medical Sciences, New Delhi. 2014.

3. Also convened at following workshops-

-APOA/APSS Spine Operative Course. (Course faculty, Neuromonitoring : AK Jaryal), Workshop by Association of Spine Surgeons of Nepal , Nepal; 29 -31 May 2014.

-Workshop on Autonomic and Vascular Function Testing. (Course faculty: AK Jaryal). Dr Bhim Rao Ambedkar Memorial Hospital, Raipur; 30, March, 2015.

-National CME on Physiology in Clinical Practice. (Course faculty: AK Jaryal) at Dr Bhim Rao Ambedkar Memorial Hospital, Raipur; 11 February, 2015.

-APSS Hanoi Spine Operative Course.(Course Faculty, Intraoperative Neuromonitoring: AK Jaryal) Vietduc University Hospital, Hanoi, Vietnam ; 25 – 27 September 2014.

-4th AIIMS Annual Spine workshop. (Resource Faculty, Neuromonitoring Support : AK Jaryal) . AIIMS, New Delhi ; 9 – 11 October, 2014

-Pre-conference workshop during 2nd AIIMS Neurotrauma Conference 2014. (Convenor : AK Jaryal) Jai Prakash Narayan Apex Trauma Centre AIIMS, New Delhi; 31October – 2 November 2014

Dr R.K. Yadav

1. Member, Institutional Ethics Committee, CCRYN, AYUSH for three years w.e.f. 17-03-2015.
2. APPI Award “Dr Sushila Thaker Prakriti Mandir Prize” during APPICON 2014 at Puri, ODISHA to my student, DrRiteshNetam, for our research on “Interleukin-6, vitamin D and diabetes risk factors are modified even by a short-term Yoga-based Lifestyle Intervention in overweight/obese Subjects”.
3. Editorial Board : International Journal of clinical and experimental physiology (Wolters Kluwer Health)
4. Secretary, Association of Physiologists & Pharmacologists of India (APPI), Delhi chapter.
5. AIIMS CGR (Clinical Grand Round) : Mind, Medicine & Meditation: An evidence-based scientific journey of yoga based interventions, 10th February, 2015, 4 pm, AIIMS, LT 1 ; Organizer & speaker.
6. Chaired a scientific session as chairperson on “male infertility” on 27th April, 2014, during 4th National Conference on Gynae Endocrinology (GESICON) 2014 organized by Gynae Endocrine Society of India, New Delhi, 25 27 April, 2014.
7. Medical Council of India (MCI) assessment of physical and other teaching facilities available at SRMSIMS, Bareilly, for recognition of MD (Physiology) course on 7-05-2014.
8. Member, Medical Board, AIIMS, May 2014.
9. Medical Council of India (MCI) assessment of physical and other facilities available at Grant Medical College, Mumbai, for increased intake of MD (Physiology) seats, 2-06-2014.
10. Member, Counselling Committee for PG July session, 2014.
11. Member, Anti Ragging Committee, AIIMS, New Delhi, 2014
12. Member, Faculty Monitoring Committee to supervise PULSE 2014
13. Member, Central committee of 42nd Institute Convocation, 2014
14. Member, Selection Committee for the appointment of research staff, AIIMS, New Delhi
15. Selection Committee Member (*Interview Board*) for recruitment to the post of Lab Technicians at AIIMS, New Delhi, 6 - 8 August, 2014.
16. Chairperson, “Evidence based mind, medicine & meditation” on 21st November during APPICON 2014 at Puri, ODISHA
17. Member, Counselling Committee for PG January, 2015
18. Member, Inquiry Committee: to inquire the circumstances leading to suicide by a 3rd year Nursing student on 7th Dec, 2014 at AIIMS, New Delhi

19. Chairperson, Symposium: Recent advances in pathophysiology and management of diabetes, during 1st National conference of Association of Physiologists of India, at JIPMER, Puducherry, 18th Dec, 2014.
20. Member, Election Commission: Students' Union Election 2015
21. Organised Guest Lectures : Molecular Physiology of Blastocyst Implantation; Speakers : M.K Bagchi, and Jan Brosens; 11th March, 2015, LT 3, AIIMS, New Delhi under the aegis of Delhi chapter, Association of Physiologists and Pharmacologists of India (APPI)
22. Deputy Hostel Superintendent, AIIMS, New Delhi.
23. Secretary, Faculty Club, AIIMS, New Delhi.
24. Joint Secretary, Faculty Association AIIMS, New Delhi
25. Member, Staff Council, AIIMS, New Delhi
26. Selection Committee Member (Research Section, AIIMS): For appointment of Research Asstt/ Lab technicians Lab attendant/DEO/Field worker etc,
27. Member, "Departmental purchase committee (Department of cafeteria) for appointment of an official caterer on annual rate contract basis in the institute"
28. Member, Teaching schedule committee for MBBS (Phase I)
29. Also convened at following workshops-
 - Workshop on Why optimism wins? (as a part of personality development), by Ms Mary Keightley, (United Kingdom) AIIMS, New Delhi; 17 April 2014.
 - Workshop on Mental toughness for women , by Ms Mary Keightley, CMET, AIIMS, New Delhi; 17th April, 2014
 - Symposium on Evidence based mind, medicine & meditation. APPICON 2014 , Puri, ODISHA ; 21 November 2014
 - Guest Lectures on Molecular Physiology of Blastocyst Implantation, under the aegis of Delhi chapter, APPI, Speakers: M.K Bagchi, and Jan Brosens, AIIMS, New Delhi; 11 March 2015.

VISITING SCIENTIST

1. Dr Clete Kushida Medical Director, Stanford Sleep Medicine Centre, Stanford, USA delivered a guest lecture on "Sleep and Sleep Disorders" on September 25, 2014 in AIIMS, New Delhi.

9.33 Psychiatry

Professor and Head

S.K. Khandelwal

Professors

Manju Mehta
Pratap Sharan

R.K. Chadda
Rajesh Sagar

Additional Professors

Nand Kumar

Mamta Sood

Assistant Professors

Sujata Satapathy
Koushik Sinha Deb
Bichitra Nanda Patra

Raman Deep Pattanayak
Rohit Verma
Manjunath

HIGHLIGHTS

The has been in forefront in the country of providing the mental health services in a general hospital setting. The Department is providing multidisciplinary services in the field of general adult psychiatry, child and adolescent psychiatry, neuro-psychiatry, consultation liaison psychiatry and community services. The Department runs a daily walk-in-clinic, weekly child and adolescent psychiatry clinic, psychosomatic clinic, common mental disorders clinic, severe mental disorders clinic, and dual diagnosis clinic, and also provides round the clock emergency services. The Department also provides community outreach services 6 days a week at the CRHSP, Ballabgarh, including one day each at the Primary Health Centre at Dayalpur and Chhainsa. The Department is also running a weekly clinic at AIIMS Campus at Jhajjar. The Department provides a wide range of therapeutic services, which include both pharmacological and non-pharmacological treatments. A multidisciplinary team consisting of psychiatrists, clinical psychologists, social worker and psychiatric nurses conducts therapies. Psychological treatments like supportive psychotherapy, psycho-education, cognitive behavior therapy and behavior therapy are used. Consultation liaison services are provided to the in-patients of other disciplines needing psychiatric care. The Department is also equipped with state of art repetitive Trans Magnetic Stimulation (rTMS) service with a neuronavigation facility.

In the year under consideration, the department conducted 4 symposia/workshops; the faculty members delivered/made 136 lectures/presentations at various CMEs and conferences. 20 new funded projects and 43 new collaborative and departmental projects were initiated. The faculty members won a number of awards.

EDUCATION

Undergraduate teaching

MBBS

Orientation and lectures:

- 3rd Semester: 24 hours
- 6th Semester: 14 hours
- 8th Semester: 6 hours

Clinical posting

- 4th–5th Semester: 20 days
- 6th 8th Semester: 40 days

CRHSP Ballabgarh

- 7th Semester: 10 hours (Community Psychiatry)

BSc Nursing

- 38 hours in 2 semesters

Postgraduate (MD, Psychiatry) and PhD teaching

- Journal discussion once a week
- Thesis protocol, midterm presentation once a week
- Tutorial twice a week
- Seminar once a week
- Case Conference once a week
- Psychotherapy supervision for postgraduate psychiatry and doctoral level clinical psychology students
- Supervision of Consultation-Liaison training for junior residents in psychiatry.
- Faculty/Staff presentation once every week besides CCR and CGR in every semester.

CMEs/Workshops/Symposia/National and International conferences

Organized by the department

- The Post Graduate Development Programme (PGDP) of Indian Psychiatric Society North Zone, themed “Psychopathology: *Illuminating the Dark Side of the Moon*” held on 26-27, July 2014 at Manesar.
- *Conference on Stress Reduction Skills: Scientific Update* in collaboration with Sri Sri Global Meditating Doctors Association held on 30-31 August, 2014 at IIT Auditorium, New Delhi.
- Public Lectures and panel discussion on theme “*Mental Health is Nation’s Wealth*” as part of India International Centre (IIC)–Mental Health Series held on 26 February, 2015 at the IIC, New Delhi.
- Public Lectures and panel discussion on theme “*Children and Adolescents and Challenges of the Modern Day Existence*” as part of India International Centre (IIC)–Mental Health Series held on 26 February, 2015 at the IIC, New Delhi.

Lectures delivered

S.K. Khandelwal: 9

Manju Mehta: 6

R.K. Chadda: 8

Pratap Sharan: 32

Rajesh Sagar: 50

Mamta Sood: 4

Nand Kumar: 3

Sujata Satapathy: 14

Raman Deep Pattanayak: 2

Koushik Sinha Deb: 4

Rohit Verma: 5

Bichitra Nanda Patra: 1

RESEARCH

Funded projects

Ongoing

1. The nodal regional treatment and training centre project, SK Khandelwal, Global Fund for AIDS, TB and Malaria; round 9, 3 years, 2012-15.
2. The e-health project: www.alcoholwebindia.org, SK Khandelwal, Atul Ambekar, Yatan Pal Singh Balhara, World Health Organization, Indefinite.
3. The strengthening of drug development action programme, SK Khandelwal, Ministry of Health and Family Welfare, 3 years, 2014-17.
4. Testing the endophenotypic potential of quantitative electro-encephalographic spectral analysis in psychosis, SK Khandelwal, Piyali Mondal, Council for Scientific and Industrial Research, 1 year, 2015-16, INR 5 lakhs.
5. Clinical efficacy of neuronavigated High Frequency Repetitive Transcranial Magnetic Stimulation (HF-rTMS) on cognitive and functional deficits in Alzheimer’s dementia (AD): a randomized sham controlled study, SK Khandelwal, Priyanka Yadav, National Brain Research Centre, 1 year, 2015-16, INR 5 lakhs.
6. Field testing of ICD-11 proposals for sexual disorders and sexual health in India, Pratap Sharan, World Health Organization, 3 years, 2013-2016, INR 12 lakhs.

7. The development of a culturally sensitive Depression Identification Instrument for SEARO. Pratap Sharan, World Health Organization – South East Asia Regional Office, 1 year, 2014-2015, INR 4.6 lakhs.
8. The development of a culturally sensitive comprehensive measure and screening scale for depression, using an item response approach, Pratap Sharan, AIIMS Research Scheme, 1 year, 2014-2015, INR 1 lakh.
9. Neurocognitive study and use of functional magnetic resonance imaging (fMRI) in patients having major depressive disorder & mania, Rajesh Sagar, Department of Science and Technology (DST), 5 years, 2011-2015, INR 39 lakhs.
10. Specific learning disorder: Indian scenario, Rajesh Sagar, DST, 2 years, 2012-14, INR 5 lakhs.
11. Assessment of cognitive functions and serum brain-derived neurotrophic factor in bipolar disorder: A one year naturalistic follow-up study, Rajesh Sagar, DST, 3 years, 2012-2015, INR 29 lakhs.
12. Evaluation of a novel neuroplasticity-based training program to remediate cognitive control deficits in attention deficit/hyperactivity disorder, Rajesh Sagar, Fogarty International Clinical Research grant (NIH, USA), 3 years, 2012-2015, INR 8 lakhs.
13. Multi-centric project on pharmacogenetics of schizophrenia, Rajesh Sagar, ICMR, 4 years, 2012-2015.
14. Development of a Psychosis Identification Instrument for WHO-SEARO, Rajesh Sagar, Pratap Sharan WHO SEARO, 2 years, 2013-2015, INR 8 lakhs.
15. Depressive and anxiety disorders in the postpartum period: prevalence, psycho-social correlates and effect on mother-infant bonding, Rajesh Sagar (co-PI), Indian Council of Medical Research (ICMR), 3 years, 2013-17, INR 30 lakhs
16. WHO-SEARO-Regional Mental Health Strategy and Action Plan, Rajesh Sagar, WHO-SEARO, 3 months, 2014, INR 7 lakhs.
17. Project ROCK ON: Remediation of Cognition in Kids to Overcome Neglect, Rajesh Sagar, University of California, San Francisco, USA, 1 year, 2015-2016, INR 13 lakhs.
18. Study on gaps analysis in mental health care services in child care institutions, Rajesh Sagar, National Commission of Protection of Child Rights, 4 months, 2015, INR 45 lakhs.
19. A study of the clinical correlates of quantitative electro-encephalographic spectral analysis in first episode psychosis, Mamta Sood, Koushik Sinha Deb, AIIMS Intramural, 1 year, 2014-2015, INR 1 lakh.

Completed

1. Testing the performance of Depression Identification Instrument for SEARO in primary care population, Pratap Sharan, World Health Organization – South East Asia Regional Office, 2 years, 2013-2015, INR 10 lakhs.
2. Effect of duloxetine 30/60 mg once daily versus placebo in adolescents with juvenile primary fibromyalgia syndrome (Protocol F1J-MC-HMGW), Pratap Sharan, Eli Lilly & Company (India) Pvt. Limited, 3 years, 2011-2014, INR 20 lakhs.

Departmental projects

Ongoing

1. A comparison study of cognitive functions, depression, anxiety, fatigue, sleep and activities of daily living in patients having neuromyelitis optica and multiple sclerosis with normal controls
2. A study of the association of anxiety and depression with cardiac arrhythmia in post myocardial infarction patients
3. Assessment of needs, scope and focus for consultation liaison services at AIIMS, New Delhi.
4. Assessment of substance use and psychosocial factors among children in an observation home
5. Assessment of white matter integrity through diffusion tensor imaging in schizophrenia patients with auditory hallucinations
6. Clinical profile and peripheral biomarkers in children with attention deficit hyperactivity disorder

7. Effect of repetitive transcranial magnetic stimulation on cognitive functioning in moderate traumatic brain injury
8. Feasibility of using mobile phones in improving service delivery and creating health awareness in patients with mental disorders
9. Prefrontal cortical activity in children with ADHD: A functional near infrared Spectroscopy(fNIRS) Study
10. To study the 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
11. Toxicological analysis and distribution pattern of alcohol and different drugs in various biological samples and their neurobiological effects in suicidal deaths

Completed

1. A case control MRI study of structural and volumetric analysis of the anterior cingulate cortex in patients with bipolar disorder and normal healthy controls
2. Abnormalities in brain neurochemistry assessed by MRS in unmedicated OCD patients and changes after 12 weeks of escitalopram treatment
3. Assessment of cognitive functioning in prediabetes , diabetes and healthy controls
4. Assessment of the economic burden of dementia care from the care givers perspective
5. Cue-induced craving in adolescent inhalant users: An fMRI study
6. Early Detection of cognitive impairment in older age in a tertiary care health setting
7. Family and genetic study of specific reading disorders (dyslexia)
8. Functional status and co-morbidities of elderly cancer patients (Department of Geriatrics Medicine)

Collaborative projects

Ongoing

1. A randomized controlled trial comparing chronic groin pain and quality of life in light weight vs heavyweight mesh in laparoscopic inguinal hernia repair (Department of Surgical disciplines)
2. A study of impact of renal transplantation on the quality of life of donor and recipient in spousal renal transplant group (Department Of Surgical Disciplines)
3. A study of mental health profile of geriatric population living in old age homes in Delhi (NIHFW)
4. A study of professional quality of life of nurses at AIIMS (Department of MHA)
5. A study of the effectiveness of psychological first aid training module in modifying knowledge and attitude of nurses working in Trauma unit (College of Nursing)
6. A study to evaluate the efficacy of supervised exercise training programme in patients suffering from peripheral arterial disease of the lower limbs attending the surgical outpatients department in a tertiary care centre (Department of Surgical Disciplines).
7. A Study to assess effectiveness of planned teaching programme for primary care givers on the home care management of elderly with dementia (College of Nursing)
8. Association of menstruation with completed suicide: a hospital based case control study
9. Development of a screening tool & protein biomarkers in elderly (Department of Geriatric Medicine)
10. Effect of lifestyle interventions on biomarkers of cellular aging in patients with depression (Department of Anatomy, Laboratory for Molecular Reproduction and Genetics)
11. Effect of repetitive transcranial magnetic stimulation on cognitive functioning in moderate traumatic brain injury (Department of Neurosurgery, JPN Trauma Centre)
12. Impact of diabetes and its complications on mental health and quality of life in older people of India (Department of Geriatric Medicine)

13. Intra-genic variation of candidate genes in depression and suicide ideation: Association study in Indian population (Department of Anthropology, University of Delhi)
14. Magnitude of psychiatric comorbidity in patients with obesity in a tertiary care centre, (Department of Medicine)
15. Markers of stress and their contributions in persons with mild cognitive impairment and dementia (Department of Bio-physics)
16. Neuro-cognitive and neurobiological aspects of bilingual developmental dyslexia studied pre- and post-therapy (Department of NMR)
17. Pharmacogenetics of schizophrenia drug therapeutics (Department of Neurobiochemistry)
18. Prevalence of impaired cognitions in patients with chronic idiopathic isolated hypoparathyroidism (Department of Endocrinology)
19. 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 (Department of Surgical Disciplines)
20. 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 (Department of Surgical Disciplines)
21. 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 (Department of Surgical Disciplines)
22. Proteomics of CSF for the identification of protein signatures in the dopamine dictated states of schizophrenia and Parkinson's disease (Department of Biophysics)
23. Students' suicide: a prospective study from South Delhi (Department of Forensic Medicine & Toxicology)
24. Study of clock genes in rat model of mania-like behavior (Department of Neurochemistry)
25. Study of peripheral stress biomarkers (S100B, 8--Isoprostane and 8-hydroxy-2-deoxyguanosine) in major depression (Department of Laboratory Medicine)
26. Study of polymorphisms in TNF- α [308 G/A], IL-1 β [511 C/T], and IL-6 [174 G/C] genes in patients of depression: their association and clinical severity (Department of Laboratory Medicine)
27. Study on role of intensive physiotherapy and TMS (Trans Cranial Magnetic Stimulation) on growth factors as biomarkers for stroke recovery (Department of Neurology)
28. The role of genetic polymorphisms, neurotrophins, apoptotic and immune markers in clinical manifestation of depression in adolescents (Department of Laboratory Medicine)
29. The role of neurotrophin, cytokines, and genetic polymorphisms in clinical manifestation of depression in adolescents (Department of Laboratory Medicine)
30. To develop a bio-feedback rehabilitation technique using residual EMG triggered TMS for spastic patients (IIT Delhi, & Department of Biomedical Engineering)
31. To study the 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 (Clinical Neuro-Psychology, Neurosciences Centre)
32. To study the effect of mobile phones on well-being, sleep and cognitive function, (Department of Medicine)

Completed

1. A comparative study of cognitive functions, depression and anxiety in neuromyelitisoptica and multiple sclerosis with normal controls (Department of Neurology)
2. A study of the phenomenology and descriptors of panic attacks and panic disorder in a north-western Indian setting (Centre for Community Medicine)
3. A study to assess the stress and coping among adolescents in selected schools of Delhi with a view to develop a module on coping strategies (College of Nursing)

4. A study to assess the stress and coping strategies among female school children regarding pubertal changes in selected urban schools in Delhi with a view to develop an information booklet (College of Nursing)
5. Anxiety disorders amongst adolescents in rural Ballabgarh (Centre for Community Medicine)
6. Clinical and psychological evaluation of patients undergoing rhinoplasty (Department of ENT)
7. Clinical spectrum of psychogenic non epileptic events in children (6-16 years) (Department of Pediatrics)
8. Comparative study of diffusion tensor imaging in OCD patients, relatives of OCD patients and healthy controls (Department of Neuroradiology)
9. Development and validation of an instrument to evaluate quality of life in Parkinson's disease (Department of Neurology)
10. Multi-centric research project on neuro-developmental disability in children (with Autism Speaks, Indian National Trust (MoSH&E), and International Clinical Epidemiology Network (INCLIN))
11. To study pre-attentive and attentive processing of phonemes and tones in dyslexic children using pre-pulse inhibition paradigm, mismatch negativity and long latency event related evoked potentials (Department of Physiology)

PUBLICATIONS

Journals: 70 Abstracts: 22 Chapters in Books: 29 Books: 4

PATIENT CARE

OPD STATISTICS

New Cases (with UHID)

Male (adult)	Male (child)	Female (adult)	Female (child)	Total
9,965	492	7,091	215	17,763

Old cases/follow-up (with UHID)

Male (adult)	Female (adult)	Total
20,015	15,999	36,014

Detailed work up cases (C-files)

Male (adult)	Female (adult)	Total
1,621	1,119	2,740

Dual Diagnosis Clinic (New and Follow up)

Cases	Male (Adult)	Female (Adult)	TOTAL
New	55	2	57
Old	2,121	2	2,123

Child Guidance Clinic (New and Follow up)

Cases	Male (adult)	Female (adult)	Total
New	343	148	491
Old	384	125	509

IN PATIENTS

Age and gender distribution

Month	Total	Gender		Age groups (years)						
		Female	Male	Children	15–20	21–30	31–40	41–50	51–60	>60
April	19	6	13	0	5	5	5	1	1	2
May	28	19	9	6	9	4	2	3	1	3
June	25	8	17	1	1	11	2	4	6	0
July	20	6	14	1	2	6	4	3	4	0
August	25	9	16	2	5	8	6	3	1	0
September	29	13	16	1	4	8	4	4	4	2
October	22	8	14	2	4	10	3	3	0	0
November	22	6	16	2	3	4	4	2	4	3
December	20	8	12	0	1	9	4	3	2	1
January	22	8	14	2	4	5	3	3	3	2
February	20	10	10	0	4	7	5	1	1	2
March	25	12	13	1	7	6	2	4	5	0
Total	277	113	164	18	49	82	44	33	32	15

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor S.K. Khandelwal was elected President, Indian Association for Social Psychiatry (2014-16); appointed Member, Editorial Board, Journal of Mental Health and Human Behaviour and Indian Journal of Social Psychiatry; Chairperson, Indian Psychiatric Society Task Force on Public Interest Litigation; Member, Project Review Committee of ICMR; Member, MCI Curriculum Committee to revise the UG curriculum on psychiatry; Member, National Drug Abuse Survey Working Group (Ministry of Social Justice and Empowerment and NSSO); Member, Advisory Committee / Stakeholder Group for Punjab Opioid Dependence Survey (Department of Health, Government of Punjab); Member, Advisory Committee on Draft Minimum Standard of Clinical Establishment Act, DGHS, MoHFW; Member, Monitoring Committee for Mental Health Units, Dept of Women and Child Development, Government of NCT of Delhi.

Professor Manju Mehta received the life time achievement award at ICMHAIIMS 2014; chaired the International Conference of Cognitive Behaviour Intervention - AIIMS 2015; nominated Member, Advisory Committee, Centre for Cognitive Science, Allahabad University; Member, Board of Visitors, IHBAS, Delhi; Member, Central Authority of Mental Health; Member, State Authority of Mental Health; Examiner for M.Phil Clinical Psychology and PhD; Member, Editorial Board, Indian Journal of Industrial Psychiatry, Indian Journal of Paediatrics, and Journal of IACAM.

Professor Rakesh Chadda was appointed Member, Editorial Board, BJP International; Chairperson, Indian Psychiatric Society Task Force on Undergraduate Medical Education; Chairperson, Election Commission, Indian Psychiatric Society, North Zone.

Professor Pratap Sharan is the Professor-in-Charge of Student Welfare at AIIMS, member of WHO's International Advisory Group for the Revision of ICD-10 Mental and Behavioural Disorders (2009 onwards), WHO's Working Group on Eating Disorders for the Revision of ICD-10 Mental and Behavioural Disorders (2012 onwards) and WHO's Guidelines Development Group for mental health Gap Action Programme - Intervention Guide (2014 onwards); chairperson of the Taskforce on Research of the Indian Association for Social Psychiatry (2012-2014); working committee member of National Medical Journal of India; member of the Editorial Board of Journal for Eating Disorders, Indian Journal of Psychiatry, Indian Journal of Social Psychiatry, Journal of Mental Health and Human Behavior; chairperson of the WHO ICD-11 Symposium on Proposals and Evidence for ICD-11 Neurodevelopmental Disorders, Disruptive Behaviour and Dissocial Disorders, Feeding and Eating Disorders,

and Impulse Control Disorders (XVI World Congress of Psychiatry, 14-18 September 2014, Madrid, Spain), symposia on 'CBT in Depressive Disorders' and 'Technology Based CBT' (International Conference on Cognitive Behavioural Interventions – AIIMS, 2-3 March 2015, New Delhi) and 'Magnitude of Mental Illness and Burden of Illness in India: Current Status' (First Annual National Conference on 'Mental Health: Current Perspectives, Developments & Technological Advancements, 10 October 2014, New Delhi). He served as a reviewer for ICMR-MRC (Medical Research Council, United Kingdom) joint initiative projects, WHO's guided self-help package for people affected by adversity, and peer reviewer for Comprehensive Psychiatry, Comprehensive Psychology, Global Public Health, Journal of Eating Disorders, Journal of Diabetes Research, National Medical Journal of India, Indian Journal of Psychiatry, Indian Journal of Palliative Care, Indian Educational Review. He served as an examiner for PhD in Psychology, MD and DNB Psychiatry examinations. He was a resource person for electronic meetings for WHO's Field Studies Coordination Group (8 May 2014 onwards), WHO's Eating Disorders Workgroup for ICD-11 (27 June 2014 onwards), and WHO's mhGAP Guidelines Development Group (4-5 February 2015), workgroups for 'm- and e-version of mhGAP-Intervention Guide' (WHO's Expert Meeting on mhGAP Intervention Guide Update, 1 – 2 December 2014, Geneva), 'Psychosis and Bipolar Disorders,' 'Alcohol Use Disorders,' and 'Self-harm and Suicide' (WHO's mhGAP Guidelines Update: Meeting of the Guideline Development Group, 3 – 5 December 2014, Geneva). *He was also a resource person for scoping questions for WHO's mhGAP guidelines (June 2014), ICMR's workgroup on 'Transgenders: Health related Issues,' and Ministry of Health and Family Welfare's workgroup on 'Draft Minimum Standards for Clinical Establishments. He was selected as co-ordinator for Meeting of the Field Studies Coordination Group of the International Advisory Group for the Revision of ICD-10 Mental and Behavioural Disorders (10-12 April 2015, New Delhi); co-ordinated the Workshop on 'Basics of Medical Research,' and Symposium on 'IASP Research Governance, Conduction and Dissemination' (XXI National Conference of Indian Association for Social Psychiatry, 21-23 November 2014, Mysore); was the Organizing Secretary for Indian Psychiatric Society North Zone PG Development Programme (26-27 July 2014, Manesar); member of the Advisory Board for various national and international conferences.*

Professor Rajesh Sagar was Convener, Specialty Advisory Board in Psychiatry, DNB, National Board of Examination (since 2011), Advisor, SLD Project, DST, GOI (since 2012); Chairman, Technical Committee on Community Mental Health Development Project, DGHS, MoH&FW, GOI (since 2013); Honorary Advisor for Mental Health, DGHS, MoH&FW, GOI (since 2013); Convener, Parliamentary Committee of Indian Psychiatry Society; Member, Advisory Committee for the Centre for Psychotherapy and Clinical Research, Ambedkar University, Delhi (since 2014); Editor, Journal of Mental Health and Human Behaviour; Member, Indian Initiative Of Obstructive Sleep Apnea national guidelines, MoH&FW, GOI (2014-15); Member, Committee for Central Adoption Regulatory Authority, MWC, GOI; Member, National Advisory Group on Child Sexual Abuse (CSA) and contributed to booklet and training materials and served as resource person for Regional ToT (medical doctors/ teachers) programmes on CSA for IMA and UNICEF; Member of Screening Committee to evaluate research proposals, Committee to evaluate proposal for post doctoral fellowship, and Task Force under 'Cognitive Science Research Initiative (CSRI), DST, GOI; Member, Technical Advisory Group on National Mental Health Program (NMHP), MoH&FW; Working Group Member for development of training module for GPs/MOs under NMHP, MoH&FW; Member, Ethics Committee of Central Council of Homeopathy Research, Department of AYUSH, GOI; Member, AIIMS Dean's committee; Member, Ethics Committee, National Brain Research Centre, Manesar; Secretary, Central Mental Health Authority (Regulatory body under Mental Health Act, Government of India); Member, Expert Committee to evaluate R&D proposals on the possible impact of EMF radiation exposure from Mobile towers and handsets on life and related R&D initiatives, DST, GOI; received the National Teacher Award-2014 on the 30th Dr S. Radhakrishnan Memorial by Association of Freelance Journalist & Writers of India; involved in the development and launch of National Mental Health Policy, discussions on Mental Health Care Bill, and assessment of disability in autism at MoH&FW; Contributed country information for WHO's Mental Health Atlas and on suicides for WHO records; Expert, Brainstorming Session on 'Translational Research on Brain Disorders', PHFI, Gurgaon; Contributed information on mental health in school curriculum text books, NIHF; Contributed to development of "A Training Module of Essential Psychiatry in General Practice" and its brief version, DGHS, MoH&FW.

Dr Mamta Sood was elected Executive Member, Indian Association for Social Psychiatry.

Dr Nand Kumar continued to work as a Sub-Dean (Examination) AIIMS, New Delhi; conducted various recruitment examinations for group A, Group B and Group C for AIIMS staff; conducted examination for DGHS, Ministry of Health, and Government of India; conducted AIIMS PG entrance examinations across the country and

MBBS entrance examinations for AIIMS New Delhi and six new AIIMS; assisted Ministry of Health, GOI regarding examinations related issues in the country; invited by Director, IGIMS, Patna, to conduct workshop on 'How to conduct Examination successfully' in IGIMS, Patna, Bihar.

Dr Sujata Satapathy chaired a session on 'Stress and Health' in and was member of the Scientific Advisory Body for the 2nd International Conference on Stress Management for Professionals (6-8 November 2014, Hyderabad); and was examiner of M.Phil, Social and Community Medicine course at Jawaharlal Nehru University, New Delhi.

Dr Raman Deep Pattanayak was appointed Honorary Associate Editor of Journal of Mental Health and Human Behaviour (JMHHB); was resource Person for CMET-AIIMS Induction Training Programme on 'Stress Management' (for Nursing Professionals).

Dr Koushik Sinha Deb was invited as Technical Expert for computerization of OPD and IPD Services at AIIMS, Jodhpur; was Organizer and Quiz Master at Indian Psychiatric Society North Zone PG Development Programme (26-27 July, 2014, Manesar).

Dr Rohit Verma received the G. C. Boral Award II at the XX National Conference of IASP at Mysore in 2014; appointed Guest Editor of the Journal – International Journal of Clinical Psychiatry for the Special issue on Pathway to Care; and Assistant Editor of the Journal Asian Journal of Cognitive Neurology.

Dr Bichitra Nanda Patra was part of the organizing committee for the Indian Psychiatric Society North Zone PG Development Programme (26-27 July, 2014, Manesar) and Conference on Stress Reduction Skills: Scientific Update (30-31 August 2014); and was a subject expert from the Department of Psychiatry for the 6th National Consultation Meeting for the Revision of National List of Essential Medicines (18-19 February 2015, AIIMS, New Delhi).

9.34 Pulmonary Medicine and Sleep Disorders

Professor and Head

Randeep Guleria

Professor

G. C. Khilnani

Additional Professor

Anant Mohan

Assistant Professors

Vijay Hadda

Karan Madan

HIGHLIGHTS

The department was created in May 2011. Since then, the department has grown in all aspects of patient care, teaching and research. The outpatient attendance of the general Pulmonary OPD, Lung cancer and Sleep clinics has increased two-fold since the previous year. Indoor facilities include an eight-bedded fully equipped Respiratory ICU and nine bedded ward. State-of-the art Interventional facilities have been established with the availability of Endobronchial ultrasound, pleuroscopy, rigid bronchoscopy, cryotherapy and electrocautery. Two sleep laboratories perform more than 200 polysomnography procedures annually. A fully functional respiratory lab has facilities for spirometry, plethysmography and diffusion studies. Cardiopulmonary exercise testing and pulmonary rehabilitation Unit have also been started for patient care.

The department runs a comprehensive DM program and has four DM students per year. They are trained through a structured academic schedule comprising seminars, journal clubs, bedside teaching, and practical training, in addition to dissertations.

The department is active in research and has several extramurally funded projects by ICMR, DST, DBT on Lung cancer, COPD, TB, Sleep and other areas. It has also been organizing an annual International Conference, **AIIMS PULMOCRIT** regularly since 2012 in association with the American College of Chest Physicians (ACCP).

EDUCATION

The department runs a comprehensive DM program and has four DM students per year. They are trained through a structured academic schedule comprising seminars, journal clubs, bedside teaching, and practical training, in addition to dissertation.

CME / WORKSHOPS

The department has been organizing an annual International Conference since 2012. The previous edition, '**AIIMS PULMOCRIT 2014 – Update in Pulmonary, Critical care and Sleep Medicine and AIIMS – ACCP Workshop on Mechanical Ventilation**' was held in Feb 2014. This was attended by over 300 participants and 100 faculty across India and from USA.

It has been organizing PGI DM Update and Bedside for DM students.

Lectures delivered

Randeep Guleria: 14

G.C. Khilnani: 16

Anant Mohan: 20

Vijay Hadda: 3

Karan Madan: 10

RESEARCH

Funded projects

Ongoing

1. Utility of leukotriene level and inflammatory markers in assessing severity of disease and response to treatment in Sarcoidosis. Randeep Guleria. ICMR.
2. Obesity and metabolic syndrome the role of nutrition physical activity and inflammation. Randeep Guleria. DBT. 3 years. Rs 81 lakhs
3. Genetic and hormonal determinants of obstructive sleep apnea syndrome in obese children from North India. Randeep Guleria. DBT. 3 years. Rs 75 lakhs
4. To study the genetic polymorphisms and correlations with cytokine and hormone levels of Macrophage migration inhibitory factor (MIF) Peroxisome Proliferator – Activated, Receptor- γ (PPAR γ) Interleukin -6 (IL-6) C reactive protein (CRP), Insulin receptor substrate (IRS) Insulin receptor substrate (IRS) 1 and Leptin receptor genes in Obstructive sleep apnea syndrome (OSAS) and non alcoholic fatty liver disease (NAFLD). Randeep Guleria. DST. 3 years. Rs 51 lakhs
5. Clinical trial of herbal compound MA 305 in patients with mild to moderate hypertension: A pilot study. Randeep Guleria. Maharishi Ayurveda. 3 years. Rs 6 lakhs
6. Genetic Association study of Polymorphisms related to Chronic Obstructive Pulmonary Disease and its Measures, in North Indian Population: COPD Genetic Consortium. Randeep Guleria.
7. Detection of aberrant promoter methylation of tumor suppression genes and onco-genes in tumor and serum of lung cancer patients. Randeep Guleria. ICMR. 3 years. Rs 27 lakhs
8. Role of acute lung injury biomarker gene polymorphisms in obstructive sleep apnea. Randeep Guleria. ICMR. 3 years. Rs. 49 lakhs
9. Evaluation of various Clinical and Pharmacological parameters as risk factors for treatment failure and relapse in patients with pulmonary tuberculosis on category II (retreatment) regimen. Anant Mohan, ICMR, New Delhi, 3 years, 2013–16, Rs 30 lakhs.
10. Elucidation of genetic alterations to understand the biology of Non Small Cell Lung Cancer patients. Anant Mohan. DBT. 3 years. Rs 25 lakhs.
11. Study of genetic polymorphism in interleukin-6, IL-13, and IL-10 as risk factors for the development of chronic obstructive pulmonary disease and their correlation with serum levels and disease severity. Anant Mohan. ICMR, New Delhi. 2011-14, Rs 29 lakhs.

Departmental projects

Ongoing

1. Nutritional status in Lung cancer
2. Lactate dehydrogenase and alkaline phosphates levels in Bronchoalveolar Lavage fluid of patients with sarcoidosis
3. Assessment of quality of life in COPD
4. Nutritional status of stable COPD patients and assessment of quality of life - Ongoing.
5. Assessment of quality of life in Asthma patients.
6. Smoking habits in urban slums of Delhi
7. Diagnostic yield of semi-rigid thoracoscopy in undiagnosed pleural effusion.
8. Prevalence of Obstructive Sleep Apnea (OSA) in patients with COPD (Overlap Syndrome) and its effect on health related quality of life
9. Diagnostic yield of EBUS-TBNA in undiagnosed mediastinal lymphadenopathy
10. Prevalence of Aspergillus fumigatus hypersensitivity in patients with bronchial asthma
11. Comparison of three strategies for withdrawal of non invasive ventilation in acute hypercapnic respiratory failure in chronic obstructive airway disease

12. Study of use of Fractional Exhaled Nitric Oxide (FeNO) in assessing asthma control and its correlation with clinical and physiological parameters
13. Fractional exhaled nitric oxide levels in obese patients with obstructive sleep apnea
14. Pulmonary complications of hematopoietic stem cell transplantation
15. plasma EGFR mutation analysis in patients of Adenocarcinoma lung
16. Ultrasonographic characteristics of Diaphragmatic function in patients of COPD and healthy controls
17. Role of Ets-1 and T helper cytokines in the pathogenesis and disease progression in patients with sarcoidosis
18. Detection of aberrant promoter methylation in tumor suppressor genes and oncogenes in tumor and serum of lung cancer patients
19. Polyamines in lung disease. Their role in mediating cellular stress and apoptosis via Nrf2 signaling pathway in COPD patients, cigarette smoke extract and biomass extract model.
20. Diagnostic utility of EBUS-TBNA versus conventional TBNA with rapid on site evaluation in the diagnosis of sarcoidosis: a randomized study
21. Utility of 18F FDG PET Scan in Differentiating Active From Healed Pulmonary tuberculosis
22. Comparison of three strategies for withdrawal of non invasive ventilation in acute hypercapnic respiratory failure in chronic obstructive airway disease
23. Serial assessment of diaphragmatic thickness and its effect on clinical outcome in patients on mechanical ventilation
24. To study prevalence and clinical profile of Sarcoidosis patients with cardiac involvement.
25. Utility of exhaled nitric oxide in the diagnosis of asthma and its correlation with disease control.
26. Role of polyamines in lung diseases and mediating cellular stress and apoptosis via Nrf2 signalling pathway in COPD patients and cigarette smokers and biomass extract model
27. Study of use of fractional exhaled nitric oxide (FeNO) in assessing asthma control and its correlation with other parameters
28. Exhaled nitric oxide values in healthy Indian population and its comparison to patients with obstructive airway disease
29. Study of the concordance between serum and tissue EGFR mutations in Non small cell lung cancer
30. Effects Of Structured Outpatient Pulmonary Rehabilitation Intervention On Exercise Capacity And Quality Of Life In Patients With Chronic Obstructive Pulmonary Disease: A Prospective controlled study
31. Comparison of three strategies for withdrawal of non invasive ventilation in acute hypercapnic respiratory failure in chronic obstructive airway disease
32. Study of use of fractional exhaled nitric oxide (feno) in assessing asthma control and its correlation with clinical and physiological parameters
33. Serial assessment of diaphragmatic thickness and its effect on clinical outcome in patients on mechanical ventilation
34. Diagnostic utility of EBUS-TBNA versus conventional TBNA with rapid on site evaluation in the diagnosis of sarcoidosis: a randomised study
35. A prospective study of sonographic assessment of skeletal muscle among patients with sepsis
36. Role of Ets-1 and Th1 mediated biomarkers in the pathogenesis and assessment of response to treatment in patients with Sarcoidosis
37. Role of polyamines in lung diseases & mediating cellular stress and apoptosis via Nrf2 signaling pathway in COPD patient and cigarette smoke & biomass extract model

Completed

1. Assessment of quality of life in-patient with lung cancer
2. Predictors of mortality and morbidity in patients admitted with acute exacerbation of COPD

3. Prevalence of Obstructive Sleep apnea(OSA) in patients with COPD (overlap syndrome) and its effect on Health related quality of life
4. Prevalence of Aspegillus Fumigatus Hypersensitivity in Patients with bronchial asthma
5. Diagnostic yield of EBUS–TBNA in patients with undiagnosed mediastinal lymphadenopathy
6. Utility of Semirigid thoracoscopy in undiagnosed pleural effusions
7. Diagnostic yield of semi-rigid thoracoscopy in undiagnosed pleural effusion.
8. Prevalence of Obstructive Sleep Apnea (OSA) in Patients with COPD (Overlap Syndrome) And its Effect on Health Related Quality of Life.
9. Yield of linear probe EBUS-TBNA in Undiagnosed Mediastinal lymphadenopathy
10. Prevalence of OSA in patients with COPD and its effect on Health Related Quality of Life

Collaborative projects

Ongoing

1. Effect of rifampicin as part of antitubercular therapy on antihypertensive drug requirement in patients of kidney disease. (Nephrology, AIIMS).
2. Study of the Immunological Impact of Type I-Interferon(s) on Immune response in Tuberculosis patients. (Biotechnology, AIIMS)

PUBLICATIONS

Journals: 26

PATIENT CARE

Pulmonary Medicine OPD

New Cases	8915	Old Cases	18601
Chemotherapy Procedures	626		

Lung Cancer Clinic

New Cases	294	Old Cases	1288
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Sleep Disorder Clinic

New Cases	307	Old Cases	281
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LABORATORIES

Respiratory laboratory

Spirometry procedures	12080	Diffusion capacity estimation	2140
MIP, MEP	215	Body box (Plethysmography) measurements	735

Bronchoscopy Laboratory

Fiberoptic bronchoscopy	1735	Endobronchial Ultrasound	263
Thoracoscopy	52	Cryotherapy	07
Stenting	20	Rigid Thoracoscopy	42
Electrocautery	11		

Sleep laboratory

Polysomnography studies	442
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AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Randeep Guleria has been awarded/conferred the prestigious “Padma Shri” Award by the President of India, Govt. of India, New Delhi; awarded Lung India Award 2014 by ICS for best original article in Lung India; nominated as Chairman of the Drugs Selection Committee, AIIMS; nominated as member of the State Health Commission on Medical Education and Research, Himachal Pradesh; nominated as member of the Joint Monitoring Group on Emerging Disease by the Ministry of Health, Govt. of India, New Delhi. He was invited to be a member of the Scientific Advisory Group of the Division of Epidemiology & Communicable diseases of the ICMR and has

been a member of the Project Review Committee of the ICMR. Dr Guleria has been appointed as a member of the Scientific Advisory Committee of the National Institute of Virology, Pune; a member of the Project Review Committee of the Department of Science & Technology, New Delhi. He was appointed as external examiner for MD (Respiratory Medicine) Examination at BHU; the External Examiner for DM (Pulmonary and Critical Care Medicine), at PGIMER, Chandigarh; an External Examiner for DM (Pulmonary and Critical Care Medicine), Examination of Pt. B.D. Sharma University of Health Sciences, Rohtak; an External Examiner for DM (Pulmonary Medicine) practical examination of the Vallabh Bhai Patel Chest Institute New Delhi; an External Examiner for DM (Pulmonary Medicine), Examination of Amrita Vishwa Vidyapeetham University, AIMS, Healthcare Campus, Kochi; an External Examiner to conduct the MD (Medicine), at PGIMER, Chandigarh; an External Expert for MD (Medicine) examination to JIPMER Pondicherry on 30th March 2015.

He was appointed as an expert to the Selection Committee for assessment promotion of faculty member under New Career Progression Scheme on post of Associate Professor in the Department of Pulmonary Medicine at the SGPGIMS, Lucknow, UP. He was appointed to conduct the interview for the post Specialist Gr.II (Jr. Scale) (Pulmonary Medicine) at Pune.

9.35 Radiodiagnosis

Professor and Head

Arun Kumar Gupta

Professor

Deep Narayan Srivastava
Sanjay Sharma (RPC)

Raju Sharma

Sanjay Thulkar (IRCH)
Ashu Seith Bhalla

Additional Professors

Smriti Hari

Shivanand Gamanagatti
(Trauma Centre)

Atin Kumar
(Trauma Centre)

Assistant Professors

Chandan J. Das
Manisha Jana

Madhusudhan K.S.
Devasenathipathy Kandasamy
Smita Manchanda

Surabhi Vyas
Chandrashekhara S.H. (IRCH)

Scientist-IV

Shashi B. Paul

Chief Technical Officer

Kavita Taneja

HIGHLIGHTS

The departmental faculty was actively engaged in patient care, education and research. During the period under review following equipment's were purchased by the department: one digital flat panel radiography system, one digital radiography fluoroscopy system, up gradation of existing MRI machine, automated liver volumetry software, breast accessories for MRI and one portable ultrasound system. Faculty members delivered over 90 lectures in various CMEs and national and international conferences. About 58 posters and oral papers were presented in various conferences all over the world. We were involved in a multi-center project funded by National Knowledge Network, a project funded by ICMR and five intramural funded research projects. Besides, we were involved in 33 completed and ongoing departmental projects and 89 projects in collaboration with other clinical departments. Our faculties were actively involved in research and had published more than 85 papers in various indexed national and international journals.

EDUCATION

Undergraduate

The department faculty was actively involved in teaching of undergraduate students. There were a total of 60 lectures taken by the faculty for them in this period.

Postgraduate

MD: There were a total of 25 junior residents, including 8 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 a total of 4 radiologists from all over the country during this period.

BSc (Hons) Medical technology in radiography (MTR)

A batch of 9 students was admitted to this course in 2014-2015. This course is of three years duration and a total of 27 students are pursuing this course.

CMEs/Workshops/Symposia/National and International conferences

Lectures delivered

Deep N. Srivastava: 3

Ashu Seith Bhalla: 19

Atin Kumar: 13

Surabhi Vyas: 4

Manisha Jana: 1

Raju Sharma: 22

Smriti Hari: 8

Chandan J. Das: 4

Chandrashekhara S.H.: 8

Sanjay Sharma: 8

Shivanand Gamanagatti: 11

Madhusudhan K.S.: 8

Devasenathipathy Kandasamy: 8

Oral papers/posters presented: 58

RESEARCH

Funded projects

Ongoing

1. Network enabled Medical Diagnosis and Education in skeletal imaging using X Rays. Dr Arun K Gupta, National Knowledge Network, 4 years, 2011-2015, 325 Lakhs
2. Role of CE-MRI of breast and MR guided breast biopsy for preoperative evaluation of patients diagnosed with breast cancer and selected for breast conservation surgery. S Hari, Intramural Grant by AIIMS, 2 years, 2014-2016, Rs. 10,0000
3. 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, Chandan J Das, ICMR, 3 years, 2014-2017, 12 Lakhs
4. Role of contrast-enhanced ultrasound, sonoelastography and MRI (Contrast enhanced, DWI & BOLD) in the evaluation of indeterminate renal masses on CT scan—a prospective study. Chandan J Das, AIIMS Intramural, 2 years, 2013-15, 5 Lakhs
5. Role of diffusion weighted and perfusion MRI in the evaluation of response of osteosarcoma to neoadjuvant chemotherapy. Madhusudhan K S. Intramural Grant (AIIMS), One, 2014-2015, Rs. 1,80,000.00
6. Role of Non contrast MRI including diffusion weighted (DWI) and contrast enhanced MR imaging in evaluation of synovitis of small joints of wrist and hands in patients of Rheumatoid Arthritis (RA), Surabhi Vyas, Intramural grant, One year, 2014-15, 1 lakhs
7. Pediatric lymphoma: Whole body MRI versus 18F FDG-PET/CT in staging and response assessment. Manisha Jana, AIIMS, 2013-2016, NO-COST EXTENSION

Departmental projects

Ongoing

1. Dynamic MRI in evaluation of upper airway in obstructive sleep apnoea
2. MRI evaluation of chronic ankle pain
3. MRI evaluation of chronic elbow pain
4. Comparison of CT and MRI with Diffusion weighted Imaging in Evaluation of response to chemo-radiotherapy in Gall Bladder Carcinoma
5. Imaging and Intervention in Arteriovenous fistulas for Hemodialysis
6. Role of MR in Response Assessment of Ewing's Sarcoma Family of Tumour
7. Role of diffusion weighted MRI for local Staging and response assessment after Neoadjuvant chemotherapy in locally advanced Squamous cell carcinoma of oral cavity
8. Utility of dual energy CT angiography in hemoptysis
9. Role of Split Bolus Dual Energy Single Acquisition CT in Evaluation of Urological Diseases of the Upper Urinary Tract.
10. Role of multimodality imaging (Mammography, US and DCEMRI) in preoperative local staging of patients with breast cancer, clinically suitable for breast conservation therapy.

11. Vascular mapping in arteriovenous fistula creation in CRF Patients
12. Role of MRI in the diagnosis and follow up of NAFLD (Non-Alcoholic Fatty liver Disease)
13. Role of CT cisternography and MR cisternography in patients with traumatic CSF rhinorrhoea
14. Role of Dual Phase CT in blunt abdominal Trauma
15. Role of diffusion weighted MR imaging in predicting the tumour stage and grade in carcinoma of urinary bladder: a prospective study on 3T MR system
16. Retrospective evaluation of embolization of visceral artery pseudoaneurysms
17. CT guided lumbar sympathectomy as a palliative treatment in patients of peripheral arterial occlusive disease of lower limbs
18. Role of MR enterography in ulceroproliferative diseases of small bowel
19. Role of CE-MRI of breast and MR guided breast biopsy for preoperative evaluation of patients diagnosed with breast cancer and selected for breast conservation surgery
20. Role of ultrasonography with power doppler in the evaluation of rheumatoid arthritis of hand and wrist joints: comparison with MRI and radiography
21. Perfusion CT in response assessment In carcinoma cervix
22. PET/CT versus CECT in the evaluation of pediatric lymphoma
23. Myocardial involvement in chronic constructive pericarditis: role of imaging in the diagnosis and prognosticating outcomes
24. Importance of Angiosome targeted vessel bed identification by DSA & MR techniques in patients with critical limb ischaemia
25. Clinical implication of changes in circulatory microRNA of HCC patients undergoing locoregional therapy and its anticancer therapeutic relevance
26. Role of C-reactive protein in predicting response to locoregional therapy for Hepatocellular carcinoma.

Completed

1. Role of Perfusion-CT in evaluation of Non-Small Cell Lung Carcinoma in Patients undergoing Chemotherapy
2. Magnetic Resonance Imaging evaluation of adult traumatic brachial plexus injury
3. MRI evaluation of chronic hip pain
4. MR evaluation of upper limb peripheral neuropathies
5. Role of MRI in imaging of retinoblastoma
6. To ascertain the role of Shear Wave elastography as an adjunct to B-mode ultrasonography in characterization of breast masses
7. Liver and spleen stiffness in patients with extrahepatic portal vein obstruction: Evaluation by ultrasound elastography.

Collaborative projects

Ongoing

1. Evaluation of properties of renal stones
2. Assessment of quality of life following definitive surgery for rectal cancer
3. Compositional study of coronary artery soft plaque using dual energy CT
4. Evaluation of epidemiology, risk factors and role of neuroimaging in diagnosis and prognosis of traumatic optic neuropathy in a tertiary eye centre.
5. Evaluation of role of Injection Bupivacaine in Strabismus.
6. The study of autonomic functions in NAFLD.

7. Study on genotype -phenotype correlation in Asian Indian subjects with childhood onset of growth hormone deficiency (Anatomy- Member Doctoral Committee)
8. Evaluation of Vidian artery in Juvenile nasopharyngeal angiofibroma
9. Study of estrogen receptor beta positivity in Juvenile nasopharyngeal angiofibroma
10. Clinico-radiological-histopathological correlation of mandibular involvement in squamous cell carcinoma of oral cavity
11. Evaluation of upper airways in continuous positive airway pressure (CPAP) failure or non compliant cases to improve its compliance by surgery in obstructive sleep apnoea syndrome (OSAS) cases
12. A cluster randomised 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.
13. A cross-sectional study to assess the correlation between morphology and extent of pigmentary changes in the background of cutaneous sclerosis and major organ involvement in systemic sclerosis
14. 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
15. A Clinical, Imaging, Endoscopic and Laboratory evaluation of Female Genital Tuberculosis
16. The effect of 1 vs 2 cm margin and simple vs oncoplastic closure in cases of early breast cancer and their effect on aesthetic outcome and quality adjusted life years.
17. CT morphometry of cervical spine
18. Role of Dynamic MRI in evaluation of osteosarcoma
19. Study pattern of HIV Drug resistant mutations in HIV patients co-infected with active tuberculosis
20. Role of inflammation in Indian women with polycystic ovary syndrome (PCOS) and its modulation by dietary factors.
21. 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).
22. Gallium-68 (Ga-68) -labeled PSMA PET/CT in the evaluation of prostate cancer patients
23. Role of CECT abdomen in decision making in elderly patients presenting to the emergency department with acute nonspecific pain abdomen
24. Pathogenetic markers in severe dengue fever
25. Does thumb opposition recover following surgery for severe carpal tunnel syndrome: A clinical, radiological and electrophysiological pilot study
26. Comparison of 68Ga-PSMA PET/CT with conventional imaging modalities for staging high risk prostate cancer. Nuclear
27. To study widening of socket and healing of hamstring tendon graft in all inside arthroscopic ACL reconstruction using MRI
28. Follow up of patients with Percutaneous Transhepatic Biliary Drainage in patients with Obstructive Jaundice Gastrointestinal
29. Gemcitabine and oxaliplatin vs Gemcitabine and capecitabine in unresectable carcinoma gall bladder with obstructive jaundice post PTBD/Stenting: A Randomized Controlled Study
30. Evaluation of clinical, sonographic and histological findings in patients with indeterminate cervical or axillary adenopathy.
31. Correlation of epicardial fat, fatty liver and abdominal fat using MRI with ECHO and body-mass index in patients with metabolic syndrome
32. Evaluation of hypersplenism in patients of extrahepatic portal vein obstruction. (Gastrointestinal Surgery)
33. Safety and efficacy of unilateral versus bilateral percutaneous transhepatic biliary drainage in the management of patients with malignant obstruction of the biliary hilum: A randomized controlled study.

34. Portal vein embolization in hepatobiliary malignancies.
35. Ultrasonic evaluation of gastric volume after fasting for 6 and 8 hours in diabetic and non-diabetic patients scheduled for elective surgery
36. Effect of visceral fat and serum adipocytokines on severity and course of IBD and intestinal TB
37. 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
38. Role of MR Spectroscopy in CNS involvement in HIV in Indian population
39. Role of Digital photography in evaluation of excised gall bladder specimens following Laproscopic Cholecystectomy
40. Influence of genetic polymorphisms, clinical and biochemical parameters in determining susceptibility to nonalcoholic fatty liver disease in Indian overweight adolescents
41. Neurocognitive and physical outcomes of infants with low birthweight and perinatal asphyxia at 2 years of age
42. Effect of total body fat and its regional distribution on bone health in adolescents
43. Comparative study of conventional and virtual autopsy in the phenotypic characterization of still birth
44. A prospective study comparing outcomes and quality of life after laparoscopic donor nephrectomy versus open donor nephrectomy
45. Mutational spectrum of tuberous sclerosis in Indian patients
46. To study the mutation spectrum, and its correlation with histopathology, neuroimaging and biochemical metabolites in Indian patients with mitochondrial disorders
47. Effect of initiation of complementary foods at 16 weeks compared to 24 weeks of corrected age on growth of preterm infants less than 34 weeks of gestation – A randomized trial
48. ICMR Advanced Centre for Newborn Health Research
49. Randomized Double blind placebo controlled trial to compare the efficacy of 3 month vs 6 month therapy with prednisolone for the first episode of idiopathic nephrotic syndrome in children
50. Evaluation of Ultrasound Cranium with MRI brain in detecting PVL in very low birth weight preterm neonates at term age
51. Evaluation of bone mineral density in paraplegic patients with spinal cord injury
52. Magnetic Resonance Image guided brachytherapy in cervical cancer: reporting vaginal, urethral and uninvolved uterus dose and clinical correlation
53. Role of contrast enhanced ultrasound in the diagnosis of hepatocellular carcinoma in patients of cirrhosis.
54. Assessment of liver fibrosis in patients with Chronic liver disease using Transient elastography, Shear wave elastography and serum biochemical markers
55. Randomized controlled trial of N-Acetyl cysteine in prevention of renal failure in hepatocellular carcinoma patients undergoing transarterial chemotherapy and transarterial chemoembolisation.

Completed

1. Evaluation of newer markers of atherosclerosis in patients with type 2 diabetes
2. Neurogenic bladder: A study on identification of risk groups and their therapeutic implications
3. Does Ultrasound guidance for peripherally inserted central catheter (PICC) insertion reduce the incidence of tip malposition? – A randomized trial
4. Impact of supervised weight loss secondary to Bariatric surgery (LSG) and/or lifestyle modifications on fat distribution of Indian adult obese patients
5. Hepatic left lobe volume a an indicator of adiposity and related metabolic abnormality in patients with non alcoholic fatty live disease
6. Role of PET/CT evaluation in lacrimal gland masses

7. To study the complications of splenectomy in patients undergoing early splenic artery ligation.
8. Voriconazole in Orbital fungal infections
9. Evaluation of risk factors for development of post thrombotic syndrome in patients of deep vein thrombosis.
10. Clinical, investigative and therapeutic profile of patients presenting with haemoptysis.
11. Comparative study of human and non-human long bones by anatomical and radiological methods.
12. Effect of IJV ligation during comprehensive neck dissection on intracranial pressure.
13. Bone height measurement of postcanine maxilla from alveolar ridge to sinus floor using CT scans.
14. Diagnosis and differential diagnosis of patients with Cushing's syndrome
15. Association of nonalcoholic fatty liver disease with bone mineral density and adiposity.
16. Utility of PET/CT/HRCT Chest in the assessment of disease activity of interstitial lung disease in patients with connective tissue diseases
17. Arthroscopy of hip in children with Legg-calve Perthes disease and its correlation with imaging
18. MDCT in ACL reconstruction
19. Incidence of DVT in major GI surgery: a prospective observational study.
20. Optimization of the of the PET/CT protocol to decrease the total radiation dose to pediatric population without compromising the diagnostic quality of fused PET/CT.
21. Comparison of whole body diffusion weighted magnetic resonance imaging with whole body 18F-NaF PET CT imaging in prostate cancer.
22. Predictors of relapse in patients with Sarcoidosis
23. Evaluation of diagnostic scoring systems in patients with acute appendicitis
24. Biomarkers in severe dengue fever
25. CIMT in HIV patients on ART induced dyslipidemia.
26. Role of CT esophagography in the evaluation of carcinoma of esophagus.
27. Evaluation of remnant pancreatic volume after Whipple's procedure and correlation with new onset diabetes mellitus.
28. Prospective evaluation of PET-CT in preoperative staging of carcinoma of esophagus.
29. Non-alcoholic fatty liver disease and metabolic syndrome in chronic kidney disease.
30. Retrospective and prospective study to evaluate the role of Laparoscopy in patients with abdominal trauma at level I trauma center
31. Comparison of quality of life after single stage vs two stage management of patients with concomitant gallstones and CBD stones: a randomized controlled trial
32. A study of ultrasonogram skeletal muscle in the assessment of hypotonic children
33. Use of Indocyanine green test for the estimation of liver function in patients undergoing trans-arterial chemoembolisation. Completed in December 2014
34. Role of Contrast enhanced ultrasound for the assessment of therapeutic response following locoregional therapy in patients of hepatocellular carcinoma. (completed in March 2014)

PUBLICATIONS

Journals: 87

Chapters in Books: 4

Books: 1

PATIENT CARE

The department is equipped with all state of art facilities for imaging. We currently have eight digital flat panel radiography units, eight digital portable radiography units, four conventional portable radiography units, two digital flat panel fluoroscopy units, two conventional fluoroscopy units, two flat panel DSA labs, thirteen ultrasound scanners with color Doppler, four portable ultrasound units, three CT scanners of which one is a dual energy scanner, one 1.5 Tesla MR scanner, one full field digital mammography unit, and a DEXA unit for bone densitometry.

The department performs a vast multitude of diagnostic and interventional radiology procedures and caters to all clinical departments in the main hospital. It provides 24 hour coverage for emergency diagnostic and interventional procedures. More than twenty five clinical-radiological conferences are held during the week where all imaging investigations are discussed with clinical colleagues. Over 3 lakh investigations were done in the department during the year 2014-15. We are making a concerted effort to switch to electronic reporting and archiving to increase efficiency and reduce the turnaround time. During the period under review following equipment's were purchased by the department: one digital flat panel radiography system, one digital radiography cum fluoroscopy system, up gradation of existing MRI machine, automated liver volumetry software, breast accessories for MRI and one portable ultrasound system.

S. No.	Name of Investigations / Special procedures	Total no. of investigations
1.	Routine X-rays <ul style="list-style-type: none"> • OPD • Indoor • Casualty • Portable Total Routine X-rays	97734 23388 50143 49673 220938
	Special Investigations	
2.	<ul style="list-style-type: none"> • Barium studies • Intravenous pyelography • Micturating cystourethrography • Hysterosalpingography • Operation theatre studies • Others contrast studies Total	1713 1815 1543 798 84 1197 7150
3.	Mammography	2851
4.	Dexa Scan	736
5.	Ultrasound <ul style="list-style-type: none"> • Routine • Emergency • Doppler (Routine + Casualty) Total	30158 20990 3435 54583
6.	CT <ul style="list-style-type: none"> • Body • Head Total	15754 6541 22295
7.	Vascular Studies <ul style="list-style-type: none"> • Digital subtraction angiography(DSA) 	1215
8.	MRI <ul style="list-style-type: none"> • Performed in Dept of Radiodiagnosis • Performed in Dept of NMR Total	2123 3481 5604
9.	Interventional Procedures <ul style="list-style-type: none"> • Ultrasound-guided • CT-guided • Vascular • Mammography Biopsy/FNAC Total	3588 663 1660 92 6003
	Total Special Investigations	100437
	Grand Total (Routine +Spl.)	321375

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Arun K Gupta received 'Distinguished Service award' from Delhi Chapter of Indian Radiological & Imaging Association, on 28th February 2015. He is also a Member of the "Intussusception Case Adjudication committee" of Rotavirus Diarrhoea Vaccine development programme

Professor Deep N Srivastava was nominated as Honorary Secretary of National Academy of Medical Sciences (NAMS), New Delhi, India. He delivered Achanta Lakshmipathi Oration of National Academy of Medical Sciences (NAMS), New Delhi, India.

Professor Raju Sharma won Academic Excellence Award 2014-2015 presented by Indian Radiology & Imaging Association. He was appointed the first 'Sub-Specialty Head for Abdominal Imaging' for the Indian Radiology & Imaging Association for the years 2015-2016. He is also a Member of Dean's Research Committee, AIIMS, New Delhi

Professor Sanjay Sharma was Awarded Fellow of the Indian College of Radiology & Imaging (FICRI) 2014; Member National Advisory committee for Journal of Clinical Ophthalmology and Research.; External expert GOI for MHFW for purchase of digital flat panel detector: two machines for RMLH (Dec 2014).; Member Technical specifications committee GOI (MHFW) for purchase of 256 slice multi detector CT for RMLH. (Jan 2015).; Member Project Review Committee (PRC) for "Bio-medical Engg." for ICMR New Delhi (March 2015).

Professor Ashu Seith Bhalla was Awarded Academic Excellence Award 2014-15 by Delhi state branch of Indian Radiological and imaging Association IRIA.; Appointed as first sub-specialty chapter head (Chest radiology) of Indian Radiological and Imaging Association – July 2014.

Dr Smriti Hari was elected General secretary of Breast Imaging Society (India) for 2014-2016

Dr Atin Kumar was elected as Vice President of Delhi Chapter of Indian Radiological and Imaging Association

Dr Chandan J. Das was Member, Core Committee Meeting of INDEX TB Guidelines, Central TB Division, MoHFW; Editorial board member, Indian journal of chest disease and allied sciences (IJCDAS)

Dr Madhusudhan K.S. was Radiology Expert Reviewer Member for a project 'Development of Flat Panel CT' funded by Biotechnology Industry Research Assistance Council (Govt. of India Enterprise).; Radiology Expert Member for Drug Controller General of India.; Radiology Expert Member of the Task Force for The National Initiative for Allied Health Sciences for preparing course curriculum for Radiologic and Imaging Technology

Dr Devasenathipathy Kandasamy received Honorary membership of Thoracic Society of Nepal

Dr Shashi Paul was Reviewer for the Journal of European Radiology and Tropical Gastroenterology

VISITING SCIENTISTS

1. Dr Sudhakar Pipavath, Associate Professor, University of Washington, Seattle, USA
2. Dr Sangeet Ghai, Associate Professor, University of Toronto, Canada
3. Dr Hans Peter Wescott, Siloah General Hospital, Hannover, Germany

9.36 Reproductive Biology

Professor & Head

Anand Kumar

Professor

Ashutosh Halder

Additional Professor

Pradeep Kumar Chaturvedi

Assistant Professors

Surabhi Gupta

Mona Sharma

HIGHLIGHTS

The department organized K.R. Laumas Memorial Oration on 29th October 2014 which was delivered by Professor G.P. Talwar. Department is mainly involved in teaching, training, research and publication related work besides diagnostic services and guiding/advising/counseling referral cases from various parts of India. CRIA facility provides tests for 16 parameters including cancer markers, thyroid profile and reproductive hormones. Permission to start 30 new tests has been obtained and these tests will be available for patient care soon. Training and teaching was provided to our own PhD students & various trainees of the department. Department is providing various fluorescent in situ hybridization (FISH) and polymerase chain reaction (PCR) related services as well as reproductive counseling/opinion, directly or on request from pediatrics, cardiology or clinical hematology as well as from outside Delhi as referral cases on request. Most of clinical counseling was self referral following web search (cases were with reproductive disorders, malformation, cancer, etc). Faculty members of the department were invited by several national academics for different academic contributions (NII ethics committee, NABL expert committee meeting, Ministry of Agriculture expert meeting, ICMR APS selection committee, etc).

EDUCATION

The department has a PhD program with weekly seminars/journal club and Day to day case wise/laboratory work discussion. It currently has six PhD students and one Post Doctoral fellow. It also has postgraduate courses for MD in Laboratory Medicine and MD in Biochemistry.

Lectures delivered

Anand Kumar: 6

Ashutosh Halder: 12

Surabhi Gupta: 2

RESEARCH

Funded projects

Ongoing

1. An investigation for sub-microscopic chromosomal imbalances and uniparental disomy by array comparative genomic hybridization (aCGH) in FISH negative clinically suspected 22q11.2 microdeletion syndromes. Halder A, ICMR, 4 yrs, 2011–15, 40 lakhs
2. An Investigation to find out mechanism for Phenotypic Heterogeneity/Variability in Microdeletion Syndrome. Halder A, AIIMS, 2 yrs, Approved in 2013 not started yet due to continuation/extension of previous project, 10 lakhs
3. Quality control for hCG kits procured. P.K. Chaturvedi, HLL Lifecare Limited, Gurgaon, Yearly, 4.20 lakhs
4. Potential effect of gene-environment interaction between CYP450A1, GSTT1, GSTM1 and environmental pollutants on semen quality (under DST Women Scientist Programme). P. K. Chaturvedi (under DST Women Scientist Prog.) Niraj Pant, DST, 3+ yrs, 2011–14, 23.76 lakhs

Completed

1. Testicular Germ cell arrest (maturation arrest): An Investigation of Phenotype-Genotype Correlation. Halder A, AIIMS, 3+ yrs, 2012 to 2015, 14.5 lakhs

Departmental projects

Ongoing

1. Role of 3,5,3'-L-triiodothyronine (T3) in the regulation of VEGF production in Leydig cell.
2. Testicular germ cell arrest (maturation arrest): An investigation of phenotype-genotype correlation.
3. Etiopathology of Macroprolactinemia
4. Etiology and Biomarker of Polycystic Ovarian Syndrome

Completed

1. Dynamics of Sex Ratio

Collaborative projects

Ongoing

1. A prospective, double-blind, randomized control trial to determine the effect of vitamin D supplementation on the development of active tuberculosis and pneumonia in HIV infected individuals
2. Randomized clinical trial to assess the efficacy of myoinositol with metformin on clinical, metabolic and hormonal parameters of polycystic ovary syndrome
3. Effect of continuous positive airway pressure therapy on neurocognitive impairment in patients with moderate to severe obstructive sleep apnea.
4. Endothelial function in moderate to severe obstructive sleep apnea syndrome
5. Effect of continuous positive airway pressure therapy on neurocognitive impairment in patients with moderate to severe obstructive sleep apnea.
6. Role of Bone Marrow Microenvironment in Multiple Myeloma
7. Understanding the pathophysiology of endometriosis by protein profiling and correlation with stress
8. Role of microRNA in Spermatogenesis
9. Molecular Genetic Evaluation of Unexplained Stillbirths
10. Molecular biology of early immature T-cell acute lymphoblastic leukaemia
11. Evaluation of C MET gene expression in gastric adenocarcinoma & co-relation with conventional clinic pathological parameters- a descriptive study
12. Evaluation of hTERT amplification in cervical cytology specimens as a marker of histologic grade of cervical intraepithelial neoplasia
13. Effect of non-ionizing electromagnetic field in human health
14. Sperm proteomics differential protein expression in normal and non-motile spermatozoa possible cases and markers
15. Role of urinary neutrophil gelatinase associated lipocalin in diagnosing contrast induced nephropathy
16. Correlation between preoperative pain prediction questionnaire and serum progesterone and prolactin levels with postoperative analgesic requirement in lower segment caesarean section patients

Completed

1. A prospective randomized comparison of testicular function, sexual function and quality of life following laparoscopic totally extra peritoneal (TEP) and trans abdominal preperitoneal (TAPP) inguinal hernia repair

PUBLICATIONS

Journals: 8 Abstracts: 4 Chapters in Books: 2

PATIENT CARE

Central RIA Facility

Routine assays 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 in the blood samples of in and out patients were carried out in the facility.

Permission to start new test (Anti TPO, Anti Tg, free T3, free T4, BNP, Troponin I, CKMB, Homocystein, 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 Hydrox progesterone, ACTH, GH, Inhibin B and AMH) has been given and will be available soon for patient care.

Name of Assay	Number of tests done	Name of Assay	Number of tests done
FSH	5072	Testosterone	1397
LH	4382	Estradiol	809
Prolactin	4143	Progesterone	194
DHEA-S	256	AFP	5273
T3	13084	PSA	2768
T4	16028	Beta hCG	1567
TSH	26888	CA-125	2087
Vitamin D	6967	Cortisol	405
TOTAL		91321	

Number of tests performed has increased from 77,382 last year to 91,321 this year.

Andrology Lab: Semen analysis done: 126; Fructose analysis done: 126

Patient care in out-patient service: Not part of standard out-patient service ~100 cases were referred to Dr. Halder, mainly from other hospitals of Delhi or self referral for Counseling/Planning of Management/Advice 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: Standardized additional molecular cytogenetic techniques (in addition to ongoing fluorescent in situ hybridization services) using STR/microsatellite markers are used for patient care.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Anand Kumar: Is Editorial/Advisory Board/Executive Member of Indian Journal of Medical Research, Cellular Physiology and Biochemistry, Molecular Biology Reports, Journal of Animal Science and Technology.; He is also Member of the Institutional Review Board (IRB) of NIHF, Member Ethics Committee, AIIMS. Examiner for PhD (various universities)

Professor Ashutosh Halder: Is Editorial/Advisory Board/Executive Member of 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 & Infertility; Bioinfo Publications Journals (publishes more than 70 open access and more than 70 subscription based peer reviewed journals); Global Journal of Human Genetics & Gene Therapy; *Clinical Research and Development: Open Access*; Asian journal of pharmaceutical and clinical research; Journal of the Association of Physicians of India (Genetics section); Clinical Research and Development; Innovare Journal of Medical Science. Medical Council of India (Task Force Member, Board of Specialty of Medical Genetics; National Accreditation Board for Testing and Calibration Laboratories (NABL) (Accreditation Committee; Genetics & Cytogenetics expert); National Institute of Immunology (Institutional Committee for Stem Cell Research and Therapy); Ministry of Agriculture (Endocrine Disruptors & Pesticides

committee); ICMR Genetic Research Center, Mumbai (Scientific Advisory Committee); Assessment Board for promotion of ICMR scientists, ICMR; Examiner for DM Examinations, Medical Genetics (SGPGIMS); Examiner for PhD (various university)

Dr P.K. Chaturvedi: Journal Reviewer (manuscript/scientific papers) for Journal of Andrologia, Institute/Govt. Committee Member for Project Reviewer for ICMR and DBT, Purchase committee member of NIHF. Examiner for PhD; Reviewer for British Medical Journal (BMJ/2007/488858); Oncology Research (ORM-A-250); Prenatal Diagnosis; Reproduction, Fertility and Development; Journal of Pediatric Genetics; British Journal of Medicine and Medical Research; Austin Journal of Reproductive Medicine & Infertility; Science Domain International; Medical Science Monitor; Oman Medical Journal; Dove Medical Press Journals (Breast Cancer: Targets and Therapy; The Application of Clinical Genetics; Journal of Clinico-Economics and Outcomes Research; Open Access Journal of Contraception; HIV/AIDS - Research and Palliative Care; International Journal of Women's Health, Pharmacogenomics and Personalized Medicine; International Medical Case Report Journal; Patient Preference and Adherence; etc); Journal of Clinical Diagnosis & Research; Science Journal of Medicine & Clinical Trials; International Journal of Medical and Pharmaceutical Case Reports; International Journal of Genetics and Molecular Biology; International Journal of Medicine and Medical Sciences; Journal of Medicine and Medical Sciences; International Journal of General Medicine; Issues in Biological Sciences and Pharmaceutical Research; African Journal of Microbiology Research; Clinical Reviews and Opinions; Journal of the Turkish-German Gynecological Association. ; Indian Journal of Medical Research; Indian Pediatrics; Indian Journal of Pediatrics; Indian Journal of Human Genetics; Journal of Clinical & Diagnostic Research; The Anthropologist; Indian Journal of Clinical Biochemistry; Journal of Maxillofacial and Oral Surgeons of India; International Journal of Genetics; Indian Journal of Physiology & Pharmacology; Asian Journal of Water, Environment and Pollution; etc.

9.37 Surgical Disciplines

Director

M.C. Misra

Professor and Head

Anurag Srivastava

Professors

Sunil Chumber	Rajinder Parshad
V. Seenu	Sandeep Aggarwal
Virinder Kumar Bansal	

Additional Professors

Anita Dhar	Subodh Kumar (Trauma Centre)
Amit Gupta (Trauma Centre)	Maneesh Singhal (Trauma Centre)
Sushma Sagar (Trauma Centre)	Biplab Mishra (Trauma Centre)

Assistant Professors

Hemanga K. Bhattacharjee	Asuri Krishna	Piyush Ranjan
Manjunath Maruti Pol		Mohit Joshi

HIGHLIGHTS

Our department is involved in Minimal Invasive, Thoracic, Renal transplant, Breast and Gastrointestinal and Bariatric Surgery. We are running Breast cancer and Renal Transplant clinics. Department of Surgery has organized 9th AIIMS Surgical Week in March 12-15, 2015 and CME in Surgery on 28th February to 1st March, 2015. AIIMS Breast Course held on 17th-18th November, 2014 and 29th-30th March, 2015. We also organized Thoracic Surgery Symposium on 5th April, 2015. Apart from this, we have been running Minimal Invasive Training Programmes for basic and advanced Laparoscopic training.

Education

- Seminar on every Wednesday from 5.00 pm to 6.00 pm.
- Case presentation by Sr. Resident on every Monday from 5.00 pm to 6.00 pm.
- Journal Club presented by Jr. Resident once in a week in each unit.
- Mortality and morbidity round by Jr. Resident once in a week in each unit.
- Lectures for MBBS students
- Lectures for Nursing students
- The following training courses were organized in the Minimally Invasive Surgery

Training Centre of the Department :

- | | |
|---|----|
| 1. Basic and Advanced Laparoscopic Training Course: | 10 |
| 2. Laparoscopic Hernia Surgery: | 7 |
| 3. Laparoscopic Colorectal Surgery: | 2 |
| 4. Laparoscopic Suturing: | 2 |

CMEs/Workshops/Symposia/National and International conferences

- Ninth AIIMS Surgical Week, International Minimal Access Surgery Conference CME cum Live Workshop, ENDOSURG- 2015, 12th-15th March, 2015, AIIMS, New Delhi

2. Celebration of Women's Day, 19th March 2015, AIIMS, New Delhi.
3. CME in Surgery, 2015, 28th February–1st March 2015, AIIMS, New Delhi.
4. AIIMS Breast Course, 17th-18th November 2014 & 29th–30th March 2015, AIIMS, New Delhi.
5. Monthly Meeting of Delhi State Chapter of Association of Surgeons of India, 21st February 2015, AIIMS, New Delhi.

Lectures delivered

Anurag Srivastava: 7

Rajinder Parshad: 4

Sandeep Aggarwal: 11

V.K. Bansal: 9

Anita Dhar: 4

Hemanga K. Bhattacharjee: 3

Piyush Ranjan: 9

Manjunath Maruti Pol: 4

Mohit Joshi: 5

Oral papers/posters presented: 22

* Best paper award: 2nd Prize

** Best poster award: 08/02/15, Christian Medical College, Ludhiana

RESEARCH

Funded projects

Ongoing

1. Impact of use of bio-absorbable staple line reinforcement on operative time and postoperative bleeding in super-obese patients (BMI >50 kg/m²) undergoing laparoscopic sleeve gastrectomy. Sandeep Aggarwal. AIIMS Intramural Grant. 3 years. 2013-15. Rs 5 Lakhs
2. Evaluation of the Nitric Oxide, Nitric Oxide Synthase, Vascular endothelium growth factor, Interleukin in lower arterial disease and their association with clinical outcome. Anita Dhar. AIIMS Intramural Grant. Rs 5 Lakhs
3. A Non-Randomized, Open Label, Multi-centric, Dose Ranging, Phase II Study Assessing the Efficacy and Safety of Intramuscular Administration of Stempeucel–CLI™ (Ex Vivo Cultured Adult Bone Marrow Derived Allogeneic Mesenchymal Stem Cells) in Patients with Critical Limb Ischemia due to Buerger's Disease. Anita Dhar. Stempeutics India Ltd. Rs 50 Lakhs
4. A prospective study of clinicopathological factors in maturation of arteriovenous fistula in patients with chronic kidney disease. Hemanga K Bhattacharjee. AIIMS. 2014-15, Rs 5 lakhs

Completed

1. A prospective randomized controlled trial of laparoscopic vs endoscopic drainage of pseudocyst of pancreas. Virinder Kumar Bansal, Indian Council of Medical Research, Rs 15 lakhs, January 2012 to April 2015
2. Safety and efficacy of autologous stem cells in prevention of amputation in patients with chronic critical limb ischemia. Anita Dhar. DBT, Rs 75 lakhs

Departmental projects

Ongoing

1. A Comparative Study of Laparoscopic Donor Nephrectomy vs Open Donor Nephrectomy in live related renal transplantation.
2. A prospective, randomized, placebo-controlled, open labeled comparison of two analgesic techniques -Intrathecal morphine (ITM) and Transverse Abdominis Plane (TAP) block, for live laparoscopic donor nephrectomy.
3. A randomized controlled, parallel group, noninferiority trial to compare identification rate of fluorescein plus methylene blue versus technetium sulphur colloid plus methylene blue for detection of sentinel node in ladies with operable breast cancer.
4. A surgical audit of breast cancer patients.
5. Ambispective cohort study to evaluate the oncologic and aesthetic outcomes of Skin sparing mastectomy.
6. Assessment of axillary nodal status by pre and intraoperative ultrasonography for selective nodal dissection a randomized control trial nested within a prospective cohort study- 2

7. Assessment of impact of clinical profile and vascular hemodynamics on the maturation of AV fistula in patients with ESRD in Indian context - a prospective study
8. Assessment of quality of life following definitive surgery for rectal cancer.
9. Circulating microRNA 106a and Interleukin 10 in locally advanced breast cancer patients and their co-relation with therapeutic intervention - a pilot study.
10. Comparison of cosmetic outcome and resection margin following intra-operative ultrasound guided excision with palpation guided breast conservation surgery in breast cancer. A randomized control trial.
11. Development of Hindi version of walking impairment Questionnaire for PAD patients to assess and quantify the extent of walking impairment.
12. Does perioperative administration of 5% dextrose effective in reducing the incidence of PONV in patients undergoing laparoscopic cholecystectomy: A prospective, double blind, randomized controlled study.
13. Dosimetric study in children and young adults with differentiated thyroid cancer undergoing radioiodine (¹³¹I- Na) therapy
14. Evaluation of awareness and cosmetic satisfaction following breast oncoplasty among breast cancer patients.
15. Evaluation of family members in patients with endocrine disorders
16. Impact of bariatric surgery on Cognitive function of morbidly obese patients
17. Impact of bariatric surgery on Polycystic Ovarian Syndrome
18. Impact of Laparoscopic Sleeve Gastrectomy (Bariatric Surgery) on Non Alcoholic Fatty Liver Disease (NAFLD) in morbid obesity
19. Impact of Laparoscopic Sleeve Gastrectomy On Type 2 Diabetes Mellitus In Patients With Body Mass Index (BMI) 27.5-35 kg/m²
20. Impact of nutritional and lifestyle modification in subjects with BMI 25-30 kg/m² vs 30-35 kg/m² and to assess the effect of bariatric surgery in BMI>35 kg/m²
21. Investigation of clinical types, hormonal profile and treatment outcomes in patients with gynaecomastia.
22. Long term outcome of sentinel node biopsy in early & operable breast cancer patients” in collaboration with Departments of Biostatistics & Surgical Oncology.
23. Prospective randomized trial comparing SILC with standard four port cholecystectomy
24. Prospective randomized trial comparing testicular function, sexual function, quality of life and chronic groin pain between TEP and TAPP techniques of laparoscopic inguinal hernia repair
25. Quality of life and arm morbidity following breast conservation surgery & sentinel lymph node biopsy (SLNB) and mastectomy with SLNB in operable breast cancer.
26. Randomized trial of Benzathine Pencillin, versus education about limb care in prevention of lymphedema following breast surgery
27. RCT of Quality of life outcomes after single stage vs two stage treatment of patients with concomitant gallstones and CBD stones.
28. Retrospective and prospective study to evaluate the role of laparoscopy in patients with abdominal trauma at level I trauma centre.
29. Standard 4 port laparoscopic cholecystectomy versus single incision laparoscopic cholecystectomy- a prospective randomized trial
30. The effect of 1 cm versus 2 cm resection margin and oncoplastic closure of breast parenchymal defect on aesthetic outcome and quality adjusted life years in ladies with early breast cancer: A randomized controlled trial.
31. The impact of standard pressure and low pressure pneumoperitoneum in shoulder pain following laparoscopic cholecystectomy- a double blind randomized control trail.
32. Therapy of fibroadenoma with intralesional triamcnenalone injection along with anti estrogen centchroman and tamoxifen.

33. To assess the effectiveness of supervised exercise therapy using treadmills on the functional aspects and the quality of life of patients with peripheral arterial disease.
34. To study the complications of splenectomy in patients undergoing early splenic artery ligation.
35. To study the efficacy of clonidine as an adjuvant to ropivacaine in ultrasound guided transverses abdominis plane block in adult renal transplant recipients- a double blinded randomised controlled trial.
36. To study the quality of life in patients undergoing splenectomy for hematologic disorders.
37. Total versus Near Total thyroidectomy (with radio-ablation of residual thyroid) for differentiated thyroid cancer confined to one lobe of thyroid gland: A randomized trial

Collaborative projects

1. A Prospective Randomized Comparison of Testicular Function, Sexual Function and QOL following Laparoscopic TEP and TAPP Inguinal hernia repair.
2. A Randomized study comparing safety and efficacy of ultrasound guided foam sclerotherapy and conventional surgery in varicose veins.
3. A study of etiopathogenesis and management of non lactational mastitis.
4. A study of impact of renal transplantation on the quality of life of donor and recipient in spousal renal transplant group.
5. A study to assess the prevalence of chronic venous disease and the effectiveness of selected non pharmacological intervention among nurses working in operaton theatres, intensive care (ICUs) of All India Institute Of Medical Sciences (AIIMS), New Delhi.
6. An investigation of tissue compatibility, hemostatic and antimicrobial properties of polymer composite membranes in Wistar rates.
7. Clinical Relevance of Immune Associated Molecules in Live Related Donor Renal Transplantation.
8. Continuous thoracic paravertebral infusion in MRM, randomized, prospective, Double blinded study to compare efficacy of Ropivacaine with and without Fentanyl.
9. Early and mid-term urinary and sexual dysfunctions following surgery for rectal cancer: A prospective observational study” in collaboration with Departments of Urology and Radiodiagnosis.
10. Emergency general surgical admissions: prospective institutional experience in non-traumatic surgical acute abdomen (NTSAA)”.
11. Evaluation of awareness and cosmetic satisfaction following breast oncoplasty among breast cancer patients.
12. Evaluation of Micronutrient Deficiency and Bone Health in Morbidly Obese Patients Undergoing Laparoscopic Sleeve Gastrectomy
13. Evaluation Of Symptoms Of Gastroesophageal Reflux Before And After Laparoscopic Sleeve Gastrectomy
14. Impact of supervised diet and lifestyle modifications on weight loss, body fat distribution and insulin resistance in adult Indian obese patients” in collaboration with Departments of Radio-diagnosis, Physiology & Endocrinology.
15. Importance of angiosome targeted vessel bed identification using DSA and MR techniques for endovascular treatment in patients with critical limb ischemia
16. Isolation, identification and characterization of cancer stem cells from different histopathological grades of colorectal carcinoma
17. Long term clinical outcome of achalasia cardia in patients undergoing laparoscopic Heller’s cardiomyotomy with angle of his accentuation v/s laparoscopic Heller’s cardiomyotomy with Dor’s fundoplication” in collaboration with Departments of Gastroenterology & Radio Diagnosis.
18. Multiparametric approach to the study of breast cancer and its correlation with molecular markers
19. Prevalence and clinical significance of occult contralateral hernia in patients undergoing unilateral hernia repair.
20. Prospective Study to Evaluate the Impact of Bariatric Surgery on Obstructive Sleep Apnea

21. RCT of comparison of various methods of mesh fixation in laparoscopic incisional and ventral hernia repair.
22. RCT of SILC vs standard 4 port laparoscopic cholecystectomy
23. Role of Digital Photography In Evaluation of Excised Gallbladder Specimens Following Laparoscopic Cholecystectomy for Gall stone Disease
24. Studies on synuclein in various pathological conditions
25. Study to evaluate the effect of training program involving animal models/tissues on operative room performance of general surgery residents.
26. Surgical outcome and disease remission following VATS thymectomy in myasthenia gravis patients” in collaboration with department of Neurology.

PUBLICATIONS

Journals: 51

PATIENT CARE

The department is providing regular services in multiple fields including multimodality treatment for breast cancer patients, minimally invasive surgery, renal transplantation, Hepato-biliary and pancreatic surgery, thoracic and thoracoscopic surgery, plastic & 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:

A dedicated Bariatric Surgery clinic was established to look after the ever increasing number of patients seeking weight loss surgery. The clinic serves about 20-30 new patients every month and keeps a follow-up of more than 500 operated bariatric surgery patients. There is a dedicated bariatric nutritionist who is a part of the team that looks after the patients.

Breast Cancer Clinic (BCC) held on every Wednesday at 2.00 PM and every Saturday at 9:00 AM, which includes follow up of old cases, chemotherapy, and registration of new cases.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Anurag Srivastava was Awarded by Institute of Cytology and Preventive Oncology (ICPO) in World Cancer Day on 4 February, 2015; Awarded by JN Medical College, AMU, Aligarh in UPASICON-2014 Annual Conference of ASI and National Live Workshop on Laparoscopic & Open Surgery participated as Chairperson for the period of 14th to 16th November, 2014; Certificate of Appreciation for participation in the scientific activities of the 25th Annual Conference of the Association of Surgeons of Assam held at Guwahati on 7th to 9th November, 2014; Awarded by Goa Medical Council, Goa in Breast Course & Joint Multidisciplinary Symposium on 10th to 12th October, 2014; Awarded by ASICON Surgical Education & Research Foundation CME on “Complications of Surgery” held at Maulana Azad Medical College, New Delhi on 21st September, 2014.

Professor Sandeep Aggarwal was Awarded the Commonwealth Academic Staff Fellowship for the year 2014-15; Awarded Fellowship of American College of Surgeons (FACS); Member of Expert Group for formulation of Indian Guidelines for Obstructive Sleep Apnea (INOSA); Member of Expert group on formulation of Guidelines for Bariatric Surgery for CGHS – Ministry of Health & Family Welfare; Operated the first two patients of Bariatric Surgery in Bihar in Ist Workshop on Bariatric Surgery in Patna, Bihar - To help start Bariatric surgery in Bihar

Dr V.K. Bansal conducted Renal Transplant inspections at Rockland Hospital on 11.11.2014; Renal Transplant inspections Max Hospital transplant Inspection; MBBS Examination SKIMS Srinagar 2014 October; FNB examiner for Minimally Invasive Surgery at MAMC, Delhi; Member Secretary Deans Committee AIIMS New Delhi; Member Academic Committee B. P. Koirala Institute of Health Sciences, Dharan, Nepal; Member Academic Committee ITS Institute of Dental sciences, Ghaziabad; Member Secretary Staff Council AIIMS New Delhi; Member Institute Ethics Committee AIIMS New Delhi

Dr Anita Dhar was Member of the DOTS committee of the AIIMS group; Member of various Medical Boards; Member of the committee for procurement of disinfectants and antiseptics; Member of the Bureau of Standards and Measurements; Member of the hospital specification committee for disposal items

Dr Hemanga K. Bhattacharjee Received EAEC Clinical Fellowship Grant for the year 2014. As a part of Clinical Fellowship visited the unit of Barriatric Colorectal Surgery University of Turin, Italy for a period of three months.

Dr Asuri Krishna was Elected joint secretary Indian Hernia Society

Dr Piyush Ranjan was felicitated by Institute of Cytology and Preventive Oncology (ICPO) on World Cancer Day, 4 February, 2015.

Dr Manjunath Maruti Pol was Member of Expert Leading Surgery Group in developing EPTB guidelines-2015.

Dr Mohit Joshi won the Best poster award at FAIMER workshop for poster entitled '*Acceptability and feasibility of Mini-CEX as a tool for WPBA of surgical postgraduate students*' at CMC Ludhiana in February, 2015; Member of Expert Leading Surgery Group in developing EPTB guidelines-2015.

VISITING SCIENTISTS

Dr Waldemar L. Olszewski, MD, PhD. Department of Surgical Research Transplantation and Epigenetics, Medical Research Centre, Polish Academy of Sciences, Warsaw, Poland attended the ENDOSURG-2015, 12–15 March 2015.

9.38 Transplant Immunology and Immunogenetics

Professor and Head

N.K. Mehra (up to 31. 11. 2014)

D.K. Mitra (from 1. 12. 2014)

Scientists

Uma Kanga

Gurvinder Kaur

Sunil Kumar

Sanjeev Goswami

EDUCATION

Short term training: The Department provided short term training to the Junior residents of Pathology and Laboratory Medicine and Senior Residents (DM Students) of the Department of Nephrology and Hematology. During the year, 2014-2015, 15 students from various universities and institutions as well as doctors from hospitals in and around Delhi received short term training for laboratory techniques in HLA testing and other immunological investigations.

Training to DM students: Several DM students from the Departments of Pathology (4), Nephrology, Medical Oncology (2), Laboratory Medicine (2), Haematology (2), AIIMS undertook training in the Department and learnt techniques in HLA testing and other immunological investigations.

Continuing Medical Education (CME)

During the year, the faculty and scientists of the department participated and delivered several lectures in National and International conferences. A quality control exercise for DNA typing of HLA genes is in progress at the national level. Training on various cell culture assays, including flow cytometry based assays have been regularly given to students and visiting trainees. The Faculty also delivered special lectures in various department of the institute (Biotechnology, Medical Oncology, Hematology, Pathology, Medicine and Anatomy) as part of the academic curriculum of these departments. Lectures delivered for MD Pediatrics, Haematology and Anatomy PGs, Lecture on Immunology was delivered to various department of the institute.

Workshops organized

16-18th July, 2014: AIIMS-TCS flowcytometry workshop

25-27th March, 2015, AIIMS-TCS flowcytometry workshop

Lectures delivered

D.K. Mitra: 5

Uma Kanga: 4

Gurvinder Kaur: 1

RESEARCH

Funded projects

Ongoing

1. Impact of transcriptional gene silencing of HIV1C on ecto-enzymes and negative co-stimulatory molecules expressed by T cell subsets: relevance to chronic immune activation in HIV infection. DK Mitra, DBT, 3Yrs, 2013-2016, Rs. 75.24 Lacs
2. Cytokine profile of poly functional T cells in Latent and Active Tuberculosis patients: Impact of regulatory T cells. PDK Mitra, DBT, 3 Yrs, 2014 -2017, 97.58 Lacs
3. Impact of host T cell response on expression and function of drug efflux pumps: Relevance to drug resistant TB. DK Mitra, ICMR, 3 Yrs, 2014 -2017, Rs. 78.5 Lacs
4. NKT cell subsets: Impact on Mycobacterium tuberculosis specific effector T cell responses. DK Mitra, ICMR, 3 Yrs, 2015-2018, Rs 65.71 Lacs

5. Multivalent Leishmania Vaccine Development. DK Mitra, DBT, 3 Yrs, 2015-2018, Rs 658.47 Lakhs
6. Establishment of Centre for Molecular Medicine (CEMM), AIIMS. NK Mehra, ICMR, 5 Yrs, 2012-2017, 2.19 crores
7. A Comprehensive Understanding of the Nasopharyngeal Carcinoma (NPC) in the North-Eastern Region of India. NK Mehra, DBT, 3 Yrs, 2011-2014, 64 lacs
8. Identification of immunogenetic factors that regulate the risk of HIV/AIDS: A comparative study of Indian and American populations. NK Mehra, ICMR, 2 Yrs, 2013-2015, 49 lacs
9. 'Functional characterization of HLA class I restricted CD8+T cells in type 1 Diabetes' NK Mehra. ICMR, 2 Yrs, 2014-2016, 57 lacs
10. Impact of HLA-G on host immune response in human tuberculosis. Uma Kanga. ICMR, 3 Yrs, 2012-2015
11. A study of genetic profile of chronic ITP patients at a North Indian Tertiary care centre. Uma Kanga. CSIR, 2 Yrs, 2013-2015, 9.0 lacs
12. Impact of HLA-G on Acute rejection following Renal Transplantation. Uma Kanga, AIIMS, 2 Yrs, 2013-2015, 10 lacs
13. Lineage specific chimerism analysis for monitoring engraftment following Hematopoietic Stem Cell Transplantation. Gurvinder Kaur, AIIMS, 2 Yrs, 2014-2016, 8 lacs

Completed

1. Representation, trafficking and functional interaction of effector and regulatory T cells: Impact on the local immune response in rheumatoid arthritis. DK Mitra, DST, 3 Yrs, 2012-2015, Rs49.98 Lacs
2. Clinical significance of HLA-G in Hematopoietic Stem cell Transplantation (2012-14). Uma Kanga, AIIMS, 2 Yrs, 2012-2014, 10.0 Lacs
3. Implications of the interferon system and immunogenetic basis of resistance to HIV-1 infection and disease progression. NK Mehra, ICMR, 3 Yrs, 2010-2014, 58 lacs

Departmental projects

Ongoing

1. Clinical relevance of HLA, MICA and NKG2D receptor molecules in renal transplantation
2. Polarized Immunity in Human Leprosy: Role of effector and Regulatory T cell subsets in shaping host immune response
3. Genomic diversity of HLA genes in Indian population
4. Clinical significance of HLA-G in Hematopoietic Stem Cell Transplantation
5. Studies of distinct T cell subsets in the pathogenesis of rheumatoid arthritis
6. Studies on Immunoregulatory mechanisms for host T cell response in human tuberculosis
7. Phenotypic and functional characterization of various T cell subsets in sarcoidosis
8. Study of T cell response among older patients with TB
9. Analysis of the antiviral immune response of type 1 interferon system against HIV-1 infection
10. Clinical Relevance of Immune associated molecules in Live related Donor Renal Transplantation
11. Immunogenetic Analysis of Nasopharyngeal Carcinoma in the North-Eastern Indian population
12. Role of non-classical HLA and MHC class 1 related chain (MICA) molecules in Hematopoietic Stem Cell Transplantation

Collaborative projects

1. Impact of transcriptional gene silencing of HIV1C on ecto-enzymes and negative co-stimulatory molecules expressed by T cell subsets: relevance to chronic immune activation in HIV infection Funding Agency: Department of Biotechnology, Government of India, collaboration with Department of Microbiology, Assam Medical College, Dibrugarh and Christian Institute of Health Sciences & Research, Dimapur

2. Cytokine profile of poly functional T cells in Latent and Active Tuberculosis patients: Impact of regulatory T cells. Funding Agency: Department of Biotechnology, Government of India, collaboration with Department of Microbiology, Assam Medical College, Dibrugarh

PUBLICATIONS

Journals: 8

PATIENT CARE

Renal Transplantation

	Recipients	Donors	Total
Live Related	362	368	730
Cadaver Transplantation (Kidney)	54	8	
Cross Match Test- Serology	692		
Cross Match Test -Flowcytometry	287		
Luminex PRA	342		
Luminex-PRA (Antibody monitoring)	106		

Bone Marrow Transplantation

	Recipients	Donors	Total
Aplastic Anemia	98	246	344
Acute Myeloid Leukemia	87	166	253
Acute Lymphocytic Leukemia	36	70	106
Thalassemia	42	92	134
Myelodysplastic Syndrome	15	32	47
Chronic Myeloid Leukemia	16	26	42
Multiple Myeloma	1	2	3
Chronic Lymphocytic Leukemia	1	2	3
Others	51	132	183
Total	347	768	1115

Chimerism studies in BMT 92 recipient donor pairs

Unrelated Donor search for BMT 187*

* During the year, a total of 197 requests for search of unrelated HLA matched donor from the 'Asian Indian Donor Marrow Registry' for bone marrow transplantation (BMT) were received. These include 77 from USA, 65 from Europe, 34 from various Asian countries and 21 from India.

DIAGNOSTICS

Spondyloarthropathies (HLA-B27)	558
Other diseases (Behcet's, Coeliac Disease, Narcolepsy)	78
Immune Deficiency Disorder	318

Diagnosis	No. of Cases
Leukocytes Adhesion Deficiency	65
Chronic Granulomatous Disease	71

NK Cell Frequency and their Activity	49
Regulatory T cell Frequency	11
Monocytes Frequency	7
B Cell Frequency	53
T Cell Frequency	62

Information from Molecular Immunology Division

HSCT recipients	132
HSCT donors	206
Total	338

Disease	Number	Disease	Number
SAA	7	CML	13
AML	60	MM	1
ALL	18	CLL	1
Thal	5	Others	24
MDS	3		
Total	132		
Other diagnostics	Number	Other diagnostics	Number
CD	20	Behcets	3
Total	23		
Chimerism	92 Recipient-donor pairs		

Information from Cellular Immunology Division

Free of cost service provided for Leukaemia phenotyping and phenotyping for Primary Immunodeficiency diseases

Diagnosis		No. of Cases
Leukocytes Adhesion Deficiency	CD11a,b,c & CD18	65
Chronic Granulomatous Disease	DCFDA	71
NK Cell Frequency and their Activity	CD3, CD56, CD161, CD25, Perforin	49
Regulatory T cell Frequency	CD4, CD25, FoxP3	11
Monocytes Frequency	CD14	7
B Cell Frequency	CD19, 20	53
T Cell Frequency	CD3, CD4, CD8	62
Total		318

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr G Kaur: Councillor for the Asia Pacific Histocompatibility and Immunogenetics Association (APHIA)

Dr Uma Kanga was awarded invitation fellowship by Japanese Science and Promotion Society. She worked at Tokai University and gained expertise on recently developed protocol for Next Generation Sequencing based HLA typing.

VISITING SCIENTIST

Dr Samarjit Das, Ph.D, Assistant Professor Department of Pathology, John Hopkins University, Baltimore, Maryland-21218, United States

9.39 Urology

Professor and Head

P.N. Dogra

Professor

Amlesh Seth

Additional Professor

Rajeev Kumar

Assistant Professors

Prabhjot Singh
Brusabhanu Nayak

Ashish Kumar Saini (JPNATC)

Rishi Nayyar
Uday Pratap Singh

EDUCATION

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. The department trains 11 postgraduates for the degree of MCh in Urology over a three year period. The department had observers, fellows and visiting faculty from various Indian/ Foreign Medical Universities to observe and learn Robotics, Endourology, Laparoscopy, Open surgery and Microsurgery in Urology. The faculty of the department continues to be examiners for NBE and M.Ch. 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 M.Ch. and DNB training courses in Urology.

Lectures delivered

P.N. Dogra: 10

Prabhjot Singh: 6

Brusabhanu Nayak: 1

Amlesh Seth: 5

Ashish Kumar Saini: 3

Rajeev Kumar: 21

Rishi Nayyar: 3

Oral papers/posters presented: 27

RESEARCH

Funded projects

Ongoing

1. Micro RNA Expression Profile In Patients With Renal Mass And Their Association With Prognosis. Ashish Kumar Saini, AIIMS, 1 Year, 2014-15, lacs
2. Evaluation of the potential of two monoclonal antibodies to treat androgen independent prostate carcinoma. Amlesh Seth, At Talwar Research Foundation: Dr GP Talwar.DBT, 3 years, 2011
3. Role of SPINK1 in Cancer Progression: Regulatory Mechanisms and Therapeutic Target Potential. Amlesh Seth, At IIT Kanpur: Dr Bushra Ateeq, DBT/ Wellcome Trust Alliance, 3 years, Started in 2013

Completed

1. Targeted antimicrobial prophylaxis using rectal swab cultures in men undergoing TRUS guided prostate biopsy: Analysis of incidence of infectious complications and prevalence of fluoroquinolone resistant E. Coli. Prabhjot Singh, AIIMS, 2 Years, 2013-15, 4.5 lacs

Departmental projects

Ongoing

1. Urinary Microseminoprotein beta (MSMB) and Prostate Specific Antigen (PSA) ratio for diagnosis of prostate cancer

2. Prospective analysis of factors predicting patency of vasoepididymostomy in patients with idiopathic obstructive azoospermia
3. Device malfunction with the da Vinci S® surgical system and its impact on surgical procedures: could device ageing be responsible?
4. Peri-operative management of pheochromocytoma and its effect on post operative outcomes
5. Role of narrow band imaging in diagnosis and treatment of non muscle invasive bladder cancer in comparison to standard white light cystoscopy
6. Outcomes following Graft urethroplasty for anterior urethral strictures
7. Outcomes of Robotic pyeloplasty in Poorly functioning kidneys
8. Prospective comparison of clinical and urodynamic parameters in spinal tuberculosis with lower urinary tract symptoms before and after surgical intervention
9. Minimally invasive management of patients with ureteral trauma
10. Etiopathogenesis, demographic profile, erectile dysfunction and socioeconomic impact in patients with Pelvic fracture urethral distraction defects: A prospective cohort study
11. Prospective comparison of clinical and urodynamic parameters in Tethered cord syndrome tract symptoms before and after surgical intervention
12. Relationship between ABO blood group type and tumor grade, stage, recurrence and progression in transitional cell carcinoma of urinary bladder
13. Pre-operative serum C-reactive Protein, platelet count, calcium levels as prognostic markers in renal cell carcinoma
14. Comparison of renal functional status before and after ESWL and PNL for uncomplicated solitary renal stone of size more than 1 cm

Completed

1. Complications of laparoscopic nephrectomy on the Clavien Dindo Scale in a contemporary cohort
2. Fever and systemic inflammatory response syndrome (SIRS) following percutaneous nephrolithotomy: Assessment of risk factors and their impact on patient outcomes
3. Role of screening and treatment for tuberculosis in infertile men with idiopathic obstructive azoospermia
4. To study the effect of Androgen Deprivation Therapy on HRQOL (Health related quality of life) during treatment of Metastatic Carcinoma Prostate
5. Outcomes following Ureteroscopy for poorly functioning kidneys due to ureteric stones
6. Outcome analysis of patients with testicular tumours and Undescended testes
7. Post percutaneous and open nephrolithotomy Hematuria: a single centre experience

Collaborative projects

Ongoing

1. Evaluation of MRS guided prostate biopsy for early prostate cancer
2. Telomere status and DNA repair mechanisms in idiopathic male infertility
3. Oxidative stress as a cause of male infertility)
4. Role of Split Bolus Dual Energy Single Acquisition CT in Evaluation of Urological Diseases of the Upper Urinary Tract
5. Erectile dysfunction in patients with obstructive sleep apnea
6. Long term outcomes (urologic) in patients with neurogenic bladder following surgery for MMC and tethered cord syndrome: A prospective study

Completed

1. Evaluation of the significance of positive semen PCR for tuberculosis in asymptomatic men undergoing infertility evaluation:
2. Validation of in-vivo MRS studies in small renal masses
3. Comparison Of Whole Body Diffusion Weighted Magnetic Resonance Imaging With Whole Body 18F-NaF PET-CT Imaging In Prostate Cancer
4. To evaluate the efficacy of obturator nerve block in controlling adductor muscle spasm during transurethral resection of bladder tumors involving lateral wall- Nerve stimulator guided Vs Ultrasound guided approach.

PUBLICATIONS

Journals: 19 Abstracts: 18 Chapters in Books: 4

PATIENT CARE

Main hospital OPD

New cases: 13,265 Old cases: 35,141

BRAIRCH Uro-malignancy clinic

New cases: 337 Old cases: 3375

Andrology and Infertility Clinic (8.8.2014 to 31.3.2015)

New cases: 103 Old cases: 577

Admissions

Long: 1355 Short: 671
Discharges: 1947

Main OT Surgical Procedures: 2025

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor P.N. Dogra did On site live training in management of the BPH with XPS System (KTP Laser) at Columbia University; Medical Centre and Cornell Presbyterian Hospital at New York City from 3rd to 8th November,

Open surgery: 410

Radical cystectomy	39	Radical nephrectomy	34
Simple nephrectomy	29	Partial nephrectomy	14
End To End Urethroplasty	15	Graft urethroplasty	13
Anterior lay open	3	Second stage closure	2
Transpubic Urethroplasty	1	Pyeloplasty	19
Augmentation Cystoplasty	2	Continent catheterisable pouch	3
Adrenalectomy	5	Boari flap	1
Ureteric Reimplant	6	Radical nut	8
VVF repair	23	Total penectomy	7
Orchidopexy	3	Prostatectomy	3
AUS implantation	1	Hypospadias repair	3
Cystolithotomy	4	AV fistula	5
Ilioinguinal lymph node dissection	7	Ureterocalycostomy	2
Paraganglioma excision	1	Others	163

Endourology: 1314

Upper tract: 352		Lower tract: 962					
PCNL	146	TURP	52	CLT	41	DJS	233
URS	150	TURBT	273	HOLEP	11	DJR	92
RIRS	56	PVP	10	HOLCT	1	OIU	28
		CPE	103	Endodilatation	29	TUR fulguration	30
		Clot evacuation	2	Others	15	Laser welding	3
		Endoevaluation	38				
		HOLAP	1				

Laparoscopic: 145

Radical nephrectomy	25		Partial nephrectomy	6
Simple nephrectomy	57		Adrenalectomy	25
Pyeloplasty	14		Nephroureterectomy	6
Diagnostic lap	4		Others	8

Robotic: 110

Radical prostatectomy	27	Radical cystectomy	5	Pyeloplasty	49
Ureterolithotomy	12	Simple prostatectomy	2	Ureteric reimplant	3
Simple nephrectomy	2	Partial nephrectomy	6		0
Pyelolithotomy	3	Others	1		

Microsurgery: 46

VEA	19	VVA	6	MVL	16	Scrotal exploration	4
TESE	1						

Minor OT: 12103

Endoscopic	2267	Open	23
Minor cases	4465	Uroflowmetry	4925
Urodynamic Study	423		

ESWL: 1248

New cases	384	Old cases	864
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Ultrasound procedures: 324

Prostate biopsy	295	SPC	12
PCN	6	USG KUB	11

2014 as a Visiting faculty; Awarded: Prof. B.B. Ohri Memorial Oration by MPASICON, Bhopal on 21st February 2015; Awarded: Medical Excellence Award-2014 for valuable contribution in Urology by Hippocrates Foundation, Noida.

Dr Rajeev Kumar was awarded: International Surgical Education Scholarship-American College of Surgeons, USA; Awarded: DUSCON Gold Medal for Clinical Research in Urology-NZ Urological Society of India; Elected: Director, World Association of Medical Editors; Appointed: Executive member, British Journal of Urology International; Appointed: Editorial board member, Korean Journal of Urology; Appointed: Expert Member: Project Review Group: iNRC for SNoMED, Ministry of Health, India; Appointed: Expert Member: Project Review Group: Fertility Regulation and Expanding Contraceptive Choices, Indian Council of Medical Research, New Delhi; Appointed: Expert Member: Project Review Steering Group: Thulium Doped 'All-Fiber' MOPA at 2 μ m region for Medical Application, DeitY, Ministry of Communication & Information Technology, India

Dr Prabhjot Singh was Awarded: Urology Association of Asia (UAA) to attend 3rd International forum on frontiers in Urology (IFFU) 18-21 April 2014 Beijing, China; Awarded: Urology society of India (USI) 3 months Clinical fellowship in Reconstructive and Prosthetic Urology in Klinikum Urology Luneburg Germany October-December 2014; Awarded: Urology Association of Asia (UAA) Youth section fellowship for 12th ACU Kish Islands Iran 5-9 December 2014

Dr Ashish Kumar Saini was Awarded: JUA fellowship 2015: Kagoshima Japan from 2/2/2015 till 31 /3/15

Dr Rishi Nayyar was selected as a Editorial committee member for a 3 year term of Indian Journal of Urology; Recognized with special mention in Indian Journal of Urology for distinguished services as a reviewer for the year 2014

VISITING SCIENTISTS

Dr Ngwu Paul Eberechukwu, Senior Registrar, Division of Urology, Federal Medical Centre, Umuahia, Nigeria (October–December 2014)

10.1 Cardiothoracic Centre

Chief

Balram Airan

Cardiothoracic and Vascular Surgery

Professor and Head

Balram Airan

Professors

S.K. Choudhary

U.K. Chowdhury

A.K. Bisoi

Additional Professors

Sachin Talwar

Milind P. Hote

V. Devagourou

Assistant Professors

Manoj Kumar Sahu
Ramesh P. Menon

P. Rajasekhar
Rachit Saxena (Contract)

Sarvesh Pal Singh
Dinesh Chandra(Contract)

Cardiology

Professor and Head

V.K. Bahl

Professors

Anita Saxena
K.C. Goswami
S. Mishra
N. Naik

S.S. Kothari
R. Juneja
S. Seth

Balram Bhargava
R. Narang
Rakesh Yadav

Additional Professors

G. Karthikeyan

Gautam Sharma
Ambuj Roy

S. Ramakrishnan S. Singh

Assistant Professors

Saurabh K. Gupta

Neeraj Parakh

Sunil K. Verma

Cardiac Anaesthesia

Professor and Head

Usha Kiran

Professors

Sandeep Chauhan
Poonam Malhotra Kapoor

Neeti Makhija
Minati Choudhury

Additional Professors

Sambhunath Das

Parag Gharde

Vishwas Malik

Assistant Professors

Suruchi Hazija

Arindam Choudhury

Cardiac Radiology
Professor and Head
Sanjiv Sharma

Additional Professors
Gurpreet Singh Gulati Priya Jagia

Assistant Professor
Sanjeev Kumar

Cardiac Biochemistry
Professor
Lakshmy Ramakrishnan

Nuclear Medicine
Additional Professor
Chetan D. Patel

Cardiac Pathology
Professor
Ruma Ray

Assistant Professor
Sudheer Kumar Arava

Stem Cell Facility
Additional Professor
Sujata Mohanty

Organ Retrieval and Banking Organization (ORBO)
Professor, Hospital Administration
Aarti Vij

Blood Transfusion Services
R. Lakshmy

Chief Medical Officer
Anjali Hazarika

INFRASTRUCTURE

1. State of the art Cardiac Care Unit has been developed.
2. Additional storage area for CTVS OT Store has been created with in the existing space.
3. Construction of Canopy for the comfort of the patients attending CNC OPD
4. A Clinical Research unit with current Good Manufacturing Practices (cGMP) for Stem Cell inaugurated by honorable Ex-Minister of Health and Family Welfare, Dr. Harsh Vardhan.

CARDIOTHORACIC AND VASCULAR SURGERY

HIGHLIGHTS

The department (CTVS) was in the forefront in the field of patient care, teaching and research. More than 45000 patients were seen in the Out Patient Department and more than 4000 surgeries of all types of cardiovascular ailments across of all age groups were performed with excellent results Besides catering to a large number of patients with all types of congenital and acquired cardiovascular diseases, 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 more than 50 lectures and presented important research papers at national and international conferences. There were more than 40 papers in national and international peer-reviewed journals. There are more than 20 national and international research projects under way in the department. A number of surgical innovations and techniques were devised by the departmental faculty and published in prestigious journals. The department successfully organized live operative workshops on Mitral Valve Repair and Wet Lab session on Bentall Procedure, besides a workshop on Aortic Dissection. These benefitted a large number of surgeons and medical and para- medical staff from all over the country. Motor Evoked Potential during Thoracoabdominal Aortic Intervention was started in the department. It is the first facility of this type in the country.

EDUCATION

The department runs an active MCh training program and at any point of time 18-20 residents are in training. MSc (perfusion) program is run by the department for imparting a degree course in extracorporeal technology. BSc and MSc nursing students are regularly trained at the department. MS (General Surgery) residents regularly rotate in the department to learn the basics of cardiovascular surgery.

The department also gets cardiothoracic surgeons for training from Sher-i-Kashmir institute, Srinagar and from Medical College, Srinagar to provide them with exposure in wide areas of cardiovascular surgery.

The following cardiac surgeons, Para-medical staff, underwent Short Term Training in CTVS Department: Dr. Nwagboso, Chimaobi Ikechukwu from Nigeria, observer; Dr. Tarsem Muzaffar, Sher-i-Kashmir Institute of Medical Sciences; Dr. Syed Ab. Wahid, Sher-i-kashmir Institute of Medical Sciences; Dr. Mir Mudasar Sadiq, Sher-i-Kashmir Institute of Medical Sciences; Dr. Vithal Kumar, Maileshi Betigieri, Professor of CTVS, GB Pant Hospital, New Delhi. Eleven O.T. nursing staff CTVS ICU of NEIGRIHMS were provided training.

CMEs/Workshops/Symposia/National and International Conferences

1. Workshop on “Bentall Procedure” 23-24 August 2014, at AIIMS, New Delhi.
2. Wet-lab on Bentall’s Procedure on 24 August 2014, at AIIMS, New Delhi.
3. Workshop on “Valve Surgery” 4-6 October 2014, at AIIMS, New Delhi
4. Wet lab on Aortic Valve replacement on 5 October 2014, at AIIMS, New Delhi
5. Wet lab on Mitral Valve replacement on 5 October 2014, at AIIMS, New Delhi

Lectures delivered

S.K. Choudhary: 22

R. Menon: 1

V. Devagourou: 6

Sachin Talwar: 19

M. Sahu: 3

S.P. Singh: 1

M. Hote: 4

Oral papers/posters presented: 12

RESEARCH

Funded projects

Ongoing

1. Evaluation of safety and efficacy of BACE (Basal Annuloplasty of Cardia Externally) Device in the treatment of functional Mitral Valve Regurgitation (FMR). Choudhary SK, Phoenix Cardiac Devices Pvt Ltd, 3 years, 2015-18, 16 lakh.
2. Effect of pre-operative administration of allopurinol on postoperative outcomes In patients undergoing intracardiac repair of Tetralogy of Fallot, Talwar Sachin, AIIMS Intramutual grant, 2014, 5,00,000/-
3. A comparison of delnido cardioplegia and St. Thomas cardioplegia solution for myocardial protection in patients undergoing pediatric cardiac surgery. Talwar Sachin, CSIR, 2015, 5 lakhs (Sanction Awaited)

Completed

1. Steroids in Cardiac surgery trial. Choudhary SK, Canadian Institute of Health Research, 5 years, 2010-2014, 30,00,000/-

Departmental projects

Ongoing

1. To determine the prevalence of immediate and Off pump total cavopulmonary connection
2. Comparison of cardiopulmonary exercise parameters of Patients with single ventricle physiology who have Undergone superior cavopulmonary anastomosis (bd Glenn) And/or total cavopulmonary connection
3. Arterial switch operation in patients with physiologically uncorrected Complete TGA with l- posed aorta
4. Pathological changes in aorta and pulmonary artery in patients with dextro transposition of great arteries undergoing arterial switch operation: a prospective study
5. Vasoactive inotropic score and outcome assessment in cyanotic infants after cardiovascular surgery
6. Results of Fontan operation in patients with congenitally corrected transposition of great arteries
7. Determining risk factors for early outcomes following bidirectional Glenn
8. Pericardial patch versus PTFE patch for RVOT reconstruction
9. Aorto pulmonary window: morphology, technique and long term
10. Factors determining outcomes in adults patients operated for congenital heart diseases
11. A comparison of three different techniques of bidirectional cavopulmonary anastomosis (bd glenn) on cardiopulmonary bypass in patients undergoing surgery for univentricular physiology
12. Nosocomial infections in the intensive care unit after pediatric cardiac surgery
13. Outcomes of patients undergoing primary fontan operation after first decade of life
14. Study of risk factors for JET after pediatric cardiac surgery
15. Atrial switch procedure in children more than 5 years of age: mid-term results
16. Correlation of Right Ventricular function by echocardiography and Serum Osteopontin levels in patients undergoing TOF repair.
17. ECMO experience at AIIMS

Completed

1. Coarctation of Aorta in adults - Morphology, surgical techniques and outcomes
2. Kawashima procedure and its mid term results”
3. Mid-term outcomes of patients undergoing adjustable PA banding
4. Evaluation of incidence, risk factors and management protocols for early postoperative arrhythmias after pediatric cardiac surgery
5. Long-term results of Total Transatrial Repair for Tetralogy Of Fallot.
6. Ventral Aorta repair for complex aortic obstruction
7. Surgical management of Bald Arch syndrome
8. Evaluation of Safety of Bentall’ s + Hemiarch replacement versus Bentall’s alone
9. Tubercular pseudoaneurysms of aorta
10. Neurological outcome of aortic arch replacement surgery without hypothermic circulatory Arrest

Collaborative projects

Ongoing

1. Oral thyroxine supplementation in pediatric patients undergoing open-heart surgery (CTVS, Endocrinology, Cardiology).
2. Comparison of cardiopulmonary exercise parameters of Patients with single ventricle physiology who have Undergone superior cavopulmonary anastomosis (bd Glenn) and/or total cavopulmonary connection (CTVS, Cardiology, Physiotherapy, Physiology).

3. Effect of pre-operative administration of allopurinol on postoperative outcomes in patients undergoing intracardiac repair of Tetralogy of Fallot (CTVS, Cardiac, biochemistry, Cardiac anaesthesiology).
4. A comparison of delnido cardioplegia and St. Thomas cardioplegia solution for myocardial protection in patients undergoing pediatric cardiac surgery (CTVS, Cardiac biochemistry, Cardiac anaesthesiology).
5. A comparison of three different techniques of bidirectional, cavopulmonary, anastomosis, (bd glenn) on cardiopulmonary bypass in patients undergoing, surgery for univentricular physiology (CTVS, Cardiac biochemistry, Cardiac anaesthesiology).
6. Evaluation of the effect of Arjuna (*Termanalia arjuna*) and Tulsi (*Ocimum sanctum*) in experimental model of pulmonary arterial hypertension in rats (Pharmacology, Cardiology, CTVS).
7. Antiinflammatory strategy in the treatment of PAH – an experimental study in rats. (Pharmacology, Cardiology, CTVS).
8. Assessment of myocardial perfusion in the territory PROXIMAL to LIMA graft insertion (Cardiology, Cardiac radiology, CTVS).
9. Importance of Angiosome targeted vessel bed identification using DSA and MR techniques for Surgery endovascular treatment in patients with critical limb ischemia. (CTVS, Cardiac Radiology, Radiology).
10. Morphometric analysis of thoracic aortic aneurysms (CTVS, Pathology).
11. Genetic markers for Thoracic aortic aneurysm and dissections (CTVS, Cardiac Radiology, Cardiology).
12. Histopathological study of extent of degenerative changes in ascending aorta of patients with bicuspid aortic valve (CTVS, Pathology, Cardiology, Cardiac Radiology).
13. Surgical audit of Ebstein Anomaly & significance of MRI correlation (CTVS, Cardiac Radiology, Cardiology).
14. Non-Invasive detection of sub-clinical disease activity in patients with established Rheumatic Valvular disease (CTVS, Cardiology, Pathology).
15. Role of Volumetric Analysis and dynamic imaging in the assessment of aortic aneurysms & Type B aortic dissections with gated CT (CTVS, Cardiac Radiology, Cardiology).
16. Expression of Matrix Metalloproteinase-2, Matrix Metalloproteinase-9, Tissue Inhibitor Metalloproteinase-1, Metalloproteinase-2, Collagen I and IV Tissue Inhibitor Expression in Thoracic Aortic aneurysm (CTVS, Pathology).

Completed

1. Prevalence and predictors of post-operative new onset Atrial Fibrillation in Rheumatic Heart Disease patients undergoing valve surgery (CTVS, Cardiology).
2. Immunohistochemical characterization of glandular elements in glandular cardiac myxoma (CTVS, Pathology).
3. Hypoglycaemia and its Implication on Bispectral Index values (CTVS, Cardiac Anaesthesia).
4. A study to assess the effectiveness of cold application during chest tube removal on pain among post cardiac patients (CTVS, College of Nursing).

PUBLICATIONS

Journals: 45

Chapters in books: 4

Books: 1

PATIENT CARE

45563 patients have attended and were seen in the Cardiothoracic and Vascular Surgery outpatient department.

Total operations performed in 2014–15

Open Heart Surgery	3033	Closed Heart Surgery	1057	Total Operations	4090
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AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Balram Airan Attended & delivered a lecture in Delhi State Chapter of Cardiac Surgeons, held on 19th July, 2014, New Delhi. Organised Dr. N.Gopinath Oration, delivered by Dr. I.M.Rao on 12th May, 2014 at

AIIMS. Delivered Lecture during the Public Lecture Series Programme and Panel Discussion on “Be Heart Wise” on 27th Sept, 2015. Conferred “Dr. Madhuri Nigam Memorial Oration” on 7th March, 2015 by G.B.Pant Hospital, New Delhi during the Commemoration of 50 years of Excellence in Super Speciality of Cardiac Surgery.

Professor S.K. Choudhary delivered the prestigious K.N. Dastur Oration titled as “How do I treat Acute Type A Aortic Dissection? An Approach based on Current Science, personal beliefs & taboos” during 61st Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons held on 19-22 February 2015 at Hyderabad. Appointed as Section Editor, Aorta and vascular, for Indian Journal of Thoracic and Cardiovascular Surgery, New Delhi, was member of committee for procurement of Open Heart Surgery instruments for the Department of CTVS Safdarjung Hospital, New Delhi, Member in the field of Cardiothoracic Surgery by Ministry of Health & Family Welfare, for Statement of Need (SON) & Exceptional Need Certificate (ENC), member to finalize Technical Specifications by Directorate General of Health Services, for procurement of Heart Lung Machine for SJH, New Delhi, Member of the Technical Committee for CTVS, Govt of Delhi, Member to finalize CGHS rates for cardiac procedures by Directorate General of Health Services, New Delhi, External examiner to conduct M.ch (CTVS) examination of King George Medical University, Lucknow, External expert to conduct the interview for the post of Professor/Additional Professor in CTVS Department of Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow. Was appointed to conduct walk-in-interview for the post of Assistant Professor CTVS at Safdarjung Hospital. Was Nominated as a member of “National task force for physician assistants”.

Dr Sachin Talwar was invited to attend the Graham reception at the Annual meeting of the American Association of Thoracic Surgery, April 26-30, Toronto, Canada. Appointed as Member, Editorial board of European Journal of Cardiothoracic Surgery and was regular reviewer for a number of international and national journals. Dr Sachin Talwar was MCh external examiner for PGI Chandigarh, Member of technical committee for procurement of items for Safdarjung hospital, New Delhi through ministry of health and family welfare, Govt of India, External expert for selection of Assistant Professors of CTVS for Safdarjung Hospital, New Delhi, External theory examiner for MCh (CTVS) Baba Faridkot University, Faridkot, Punjab.

Dr V. Devagourou conducted a medical camp in Leh, Ladak for the benefit of sick and chronically ill poor patients from that region between 24th and 31st august 2014. Conducted a wet lab on tricuspid and mitral valve repair in Nepal as part of the XII International Congress on management of cardiovascular disease co conducted by Mayo Clinic and Cardiac Society of Nepal, 17th and 18th Oct 2014. Was selected for SQIL programme of Harvard Medical School, for 2015-16, Certificate course based on blended learning on Patient Safety, Quality, Informatics, Leadership.

CARDIOLOGY

HIGHLIGHTS

The department catered to nearly 1,15,000 outpatient visits. Over 35,000 patients underwent echocardiography and about 3600 diagnostic cardiac catheterizations were performed. 2500 patients underwent interventional procedures. During this period, the Department participated in several research projects studying patients across a wide spectrum of cardiac disease. Important publications relating to rheumatic heart disease, coronary artery disease and treatment of patients with valve thrombosis were published in high-impact scientific journals. Overall, the body of research work done in the Department resulted in 68 publications in various national and international peer-reviewed journals. The faculties of the department along with JNU have launched a journal JPCS and are part of major cardiology journals including Indian heart journal and annals of pediatric cardiology. 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.

EDUCATION

Department of cardiology 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 organized

1. CSI-AIIMS Cardiology Fellows Course, 17-18 August 2014, New Delhi
2. 3rd National Rheumatic Heart Consortium Meeting, 2- 3 November 2014, New Delhi
3. Annual conference of CSI Delhi Branch, March 21-22, 2015, New Delhi

Lectures delivered

V.K. Bahl: 9	Anita Saxena: 3	S.S. Kothari: 2
Balram Bhargava: 1	R. Narang: 1	Sandeep Seth: 2
Sundeep Mishra: 2	N. Naik: 2	R. Yadav: 3
Gautam Sharma: 2	Ambuj Roy: 3	S. Ramakrishnan: 12
Neeraj Parakh: 1	Saurabh K. Gupta: 4	

RESEARCH

Funded projects

Ongoing

1. Rheumatic heart disease in children- AIIMS Prospective Registry, Anita Saxena, ICMR, 3 years, 2012-15, 28,00,000/-
2. Endothelial function in Acute rheumatic Fever, S Ramakrishnan, ICMR, 2 years, 2014-16, 55, 00,000/-
3. Risk factors in young patients with MI, Sunil K Verma, AIIMS, 1 year, 2014-15, 5,00,000/-
4. Vascular closure devices compared to manual compression following PCI Sandeep Singh, AIIMS, 1 year, 2014-15, 5,00,000/-
5. Thrombectomy in patients presenting late after MI Neeraj Parekh, AIIMS, 1 year, 2014-15, 5,00,000/-

Completed

1. Intravascular Ultrasound for severe pulmonary artery hypertension in congenital heart diseases, R Juneja, DST, 2014

Departmental projects

Ongoing

1. Endocrine abnormalities in dilated cardiomyopathy
2. Electrophysiologic characterization of persons with early repolarization pattern on resting 12-lead ECG
3. Speckle tracking in mitral regurgitation and correlation with exercise capacity
4. Ambulatory BP monitoring among bus drivers
5. Characteristics of patients undergoing primary PCI and determinants of outcomes

Completed

1. Incidence of stroke and systemic embolism in patients of rheumatic MS in sinus rhythm
2. Rhythm control in patients with rheumatic MS with atrial fibrillation following PTMC
3. Chronic low grade inflammation and risk of AF in rheumatic MS
4. Effect of tobacco chewing on coronary microvasculature and hemodynamics
5. 2D versus 3D echo in predicting acute outcome of PTMC
6. Prospective evaluation of children with NSAA
7. Thiamine levels in heart failure patients on high dose diuretics
8. Incidence of new onset AF in post rheumatic heart valve surgery patients
9. Holter monitoring during tobacco chewing

Collaborative projects

Ongoing

1. Ischemia Trial (NIH).
2. National Leader and Co-Investigator of the Steroids in Cardiac Surgery (SIRS) trial (Canadian Institutes of Health Research).
3. Remote Ischemic preconditioning pilot trial (Remote IMPACT) (Canadian Institutes of Health Research).

PUBLICATIONS

Journals: 68

PATIENT CARE

New OPD cases	33178	Old Cases	82658
Total numbers	115836		

Patient Services

TMT	2204	Holter	2882
Echocardiography	34,947	Fetal Echocardiography	257
ECG (Indoor)	23999	ECG (OPD)	38568
ABP	79	Head up tilt test	174

Cath Lab Services

CART	2298	Cath	1062
Balloon Dilatation	149	PTMC	403
PDA	134	ASD Device	46
VSD Device	14	PTCA	1322
Embx	30	Pacemakers	297
ICD	62	CRT-D	61
RFA	146	CARTO	29

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor V.K. Bahl was Associate Editor of Heart Asia, a publication of BMJ group

Professor Anita Saxena was President APPCS (Asia Pacific Pediatric Society of India). Was Visiting professor of Pediatric Cardiology, Variety Children's heart centre Winnipeg, and was President of National rheumatic heart consortium.

Professor Balram Bhargava: Wellcome Trust DBT initiative on R and D for Affordable Health Care for India, Was Editor, BMJ Innovations

Professor K.C. Goswami was President of Cardiological Society of India, Delhi branch

Professor Sandeep Seth was Editor in Chief of JPCS

Professor RakeshYadav was Secretary of CSI – Delhi branch and was EC member of CSI

Professor Sundeep Mishra was appointed Editor, Indian Heart Journal, Was in the Board of trustees SCAI, Was Associate editor of Asia Intervention. Was the Course director of TCT India, Sri Lanka Interventional meeting

Professor Nitish Naik was elected Fellow of American College of Cardiology and was the Executive editor of IHJ

Dr G. Karthikeyan Executive editor of IHJ

Dr Ambuj Roy was elected Fellow of American College of Cardiology

Dr S. Ramakrishnan was elected as secretary, Cardiological Society of India, Delhi Branch (CSI). Was Assistant editor of Annals of pediatric cardiology, Secretary of Pediatric cardiac society of India, Treasurer of national rheumatic heart consortium, Executive editor of IHJ and Associate editor of JPCS.

CARDIAC ANAESTHESIA

HIGHLIGHTS

The faculty and residents were awarded three best paper awards in various national and International conferences. Dr Usha Kiran continues to be the Vice-President of PRAN “Parkinson. Related Awareness Network” and Editorial board member of various Journals. Dr Sandeep Chauhan was editorial board member of a number of journals & attended international conference. Dr Neeti Makhija was elected as executive member of IACTA and Teacher of IACTA and is a member editorial board of various Journals. Dr Poonam Malhotra has written two books.

EDUCATION

1. 8 DM-Candidates including 2 sponsored Lt. Col. from Army and 12 other MD-Junior resident doctors from Main Anesthesia department have undergone superspeciality training in Cardiac-Thoracic-Anesthesia.
2. 10 MD Candidates from Lady Harding Medical College were imparted short-term training in the specialty of Cardiac-Anesthesia.
3. A total of 40 seminars, 20 Journal presentation and 20 case presentations/ discussions were presented by DM & Non DM Senior residents of the department of the duly moderated by faculty.
4. Short-term training imparted to 2 DM candidates from Shree Chitra Tirunal Institute.
5. Three candidates including 2 faculty and one perfusionist are doing Ph.D. in the department.

CME/workshop/Symposia/national/international conferences organized

1. Pediatric AIIMS ECMO Workshop, 17 August 2014 AIIMS, New Delhi
2. Professor Usha Kiran Organized a series of lectures on Self improvement and Stress Free Management under the guidance of Director and Dean for all hospital employees, 8 dates during the year, AIIMS, New Delhi

Lectures delivered

Usha Kiran: 6

Sandeep Chauhan: 15

Neeti Makhija: 2

Minati Choudhury: 3

Sambhunath Das: 6

Parag Gharde: 3

Suruchi Hasija: 2

Oral papers/posters presented: 5

RESEARCH

Funded projects

Ongoing

1. Comparison of bivalirudin to heparin With Protamine reversal in acyanotic reversal in acyanotic undergoing open-heart surgery. Suruchi Hasija, AIIMS, 2 years, April 2014 March 2016, 5,00,000/-

Completed

1. Clinical efficacy and Safety of Perioperative Dexmedetomidine therapy in patients undergoing valvular heart surgeries – A randomized control trial, Sambhunath Das AIIMS, 2013-2015, 7.5 Lac.

Departmental projects

Ongoing

1. Comparison of thermodilution, pulse contour and electrovelcimyetry derived cardiac output monitoring in patients undergoing Coronary Artery Bypass Surgery on Cardiopulmonary Bypass
2. Prevention of junctional ectopic tachycardia in children undergoing congenital heart surgery by using dexmedetomidine
3. Preoperative echocardiographic predictors of right ventricle function in patients undergoing corrective surgery for Tetralogy of Fallot
4. Sonoclot analysis in infants D-transposition of great arteries undergoing arterial switch Operation
5. Urine NGAL analysis with a different EACA does in arterial switch operation

PUBLICATIONS

Journals: 17

Chapters in books: 5

PATIENT CARE

1. Faculty & Residents of the Department of Cardiac-Anesthesia are involved in providing anesthesia care in 8 operation theatre, 5 catheterization labs, CT angiography and MRI. Cardiac-Anesthesia department is also involved in resuscitation & ventilatory care in CTVS-ICU-A & B, ICCU, all the general wards and C.N. Tower.
2. The Department looks after “Stress Management clinic” for the Cardio-Neuro patients,
3. Care givers and various staff, nurses, ANS, etc. including all employees of AIIMS.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Sashidharan Award From Sri Lanka college of Anaesthesiologist, 29th Jan 2015 at Colombo, Sri Lanka. Certificate of appreciation from Royal College of Anaesthesiologist and Sri Lanka College of Anaesthesiologist, 3rd Feb 2015 at Galle, Sri Lanka.

Professor Usha Kiran chaired a session on “Non technical Skills” in the International Conference of Critical Care and Referral Anaesthesia held on 6 April, 2014 in AIIMS, New Delhi.

Professor Neeti Makhija chaired two sessions, “TEE for Prosthetic Valve” and “Epicardial Echocardiography” in the 8th National Perioperative TEE Workshop cum CME held between 5-7 September 2014 in Naryana Hridayalya, Bangalore. Was a panelist for discussion on “Perioperative Coagulation Monitoring” in 12th Chennai Cardiac update-2014 held between 31 October – 2 November in Chennai.

CARDIAC RADIOLOGY

HIGHLIGHTS

The faculty of the department delivered 31 lectures at various national and international scientific meetings. The department also hosted a visiting fellow from Nigeria. Additionally, the faculties are members of editorial boards and reviewers for numerous scientific journals. The departmental faculty has been running 2 research projects and 7 thesis. They published 9 research papers (including 2 abstracts) in various peer reviewed international journals, as well as 3 chapters in internationally published books. Two papers were also presented at international meetings. The department continues to provide cardiovascular imaging and vascular interventional treatment services to patients referred from various specialty departments in the hospital.

EDUCATION

- 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
- Participation in Clinical Combined Rounds and Clinical Grand Rounds with Allied specialties
- Training of junior and senior residents in radiology and senior residents in Cardiology, CTVS and Cardiac Anaesthesia in techniques of cardiovascular imaging and vascular interventions with daily case presentations and Weekly journal clubs and seminars.

Lectures delivered

Sanjiv Sharma: 10

Gurpreet S. Gulati: 8

Priya Jagia: 8

Sanjeev Kumar: 5

Oral papers/posters presented: 2

RESEARCH

Funded projects

Completed

1. Induction of Therapeutic Angiogenesis In Critical Limb Ischemia By Intra-Arterial Delivery Of Autologous Bone-Marrow Derived Stem Cells, Dr Sanjiv Sharma DBT 3yrs, 85 lakhs

Departmental projects

Ongoing

1. Myocardial involvement in chronic constrictive pericarditis: role of imaging in the diagnosis and for prognostication of treatment outcomes.
2. To evaluate the cardiovascular comorbidity in obese Indians with OSA/OHS
3. Effect of continuous positive airway pressure (CPAP) on neurocognitive functions in patients with obstructive sleep apnea syndrome
4. Assessment of myocardial perfusion in the territory of the left anterior descending artery proximal to left internal mammary graft insertion
5. Importance of Angiosome targeted vessel bed identification using DSA and MR techniques and its relevance in endovascular treatment in patients with critical limb ischemia
6. Medtronic CapSureFix® Novus Model 5076 MRI Lead Study
7. The safety and efficacy of Transcatheter Arterial embolization in Moderate Osteoarthritis and median knee pain.

Completed

1. Role of CT angiography in the evaluation of coronaries and in functional assessment of Aortic Stenosis (AS)

PUBLICATIONS

Journals: 7

Abstracts: 2

Chapters in books: 3

PATIENT CARE

Facility	Number of procedures	Facility	Number of procedures
Cine Fluoroscopy	10,000	MRI	391
CT	2741	DSA	1034
Doppler and Ultrasound	3871	Catheter angiographies	6509

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Sanjiv Sharma was Examiner for MD (Radiodiagnosis), June 2014 for Tribhuvan University, Kathmandu

Dr Gurpreet S. Gulati was Nominated Vice-President (non-elected), Indian Association of Cardiac Imaging. Dr Gurpreet Gulati was (1) Section Editor, Indian Heart Journal (Imaging section) (2) Member, Editorial Board, Cardiovascular Imaging Section of Indian Journal of Radiology and Imaging (3) Reviewer for many national and international radiology and cardiology journals

Dr Priya Jagia was Reviewer for many national and international radiology and cardiology journals

Dr Sanjeev Kumar was nominated as a Judge for poster presentation in Journal of Practice of Cardiovascular Sciences

CARDIAC BIOCHEMISTRY

HIGHLIGHTS

The Cardiac Biochemistry unit organized a regional workshop, for WHO on “salt intake and iodized salt” for member countries of South East Asia Region, which was attended, by 10 member countries. Helped UNICEF as

External national expert to help them identify the most qualified lab for a survey on comprehensive assessment of the nutritional status of preschool and school age children and adolescents in India. The faculty of Cardiac Biochemistry was in the expert committee for reviewing projects for ICMR in the area of (1) Obesity and Metabolic Syndrome (2) Non Communicable Diseases. The department is involved in 17 research projects involving different departments in AIIMS. For patient care the department is carrying out several investigation for patients of cardiothoracic center as well as other departments in AIIMS and other hospitals in Delhi.

EDUCATION

Two students are pursuing PhD in the department. The department is involved in undergraduate teaching, conducted training classes in laboratory diagnostics for MD (Biochemistry) students, conducted classes for M.Sc (Forensic Science) students from LNJN National Institute of Criminology and Forensic Sciences, New Delhi

CMEs/Workshops/Symposia/National and International Conferences

1. Organized a WHO regional workshop on “Sodium intake and iodized salt in the South East Asian regions” in New Delhi on 29th and 30th September 2014 which was attended by participants from 10 member countries

Lectures delivered

Lakshmy R.: 2

RESEARCH

Funded projects

Ongoing

1. Relationship of birth size, infant and childhood growth on telomere length and telomerase activity in adulthood. R.Lakshmy DBT 2012-2015, 70,87,250/-

Completed

1. Central Reference Laboratory for the study “Childhood obesity in India: A multicenter study on its measurement and determinants. R.Lakshmy, ICMR, 2012-2014, March 2012, 4,00,000/-

Departmental projects

Ongoing

1. Relationship of birth size, infant and childhood catch-up growth on telomere length and oxidative stress markers in adulthood.
2. 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. Relations of Leucocyte membrane complement regulatory proteins, MBL and MASP2 with the pathophysiology and severity of coronary artery disease (Biochemistry, Cardiology)
2. Role of inflammation in Indian women with Polycystic ovary syndrome (PCOS) and its modulation by dietary factors (Endocrinology).
3. Health survey of tribal population in Kashmir valley with special reference to magnitude and risk factors of non-communicable disease: A collaborative cross sectional study (Endocrinology).
4. 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 (Endocrinology).
5. Targeting telomerase transcriptase (TERT) gene to immortalize peripheral blood mononuclear cells of patients with coronary artery disease. (Stem cell Facility).
6. Genetic determinants of birth weight and growth trajectory and influence of parental genotype on these anthropometric indicators (Endocrinology, IGIB)

7. Role of chronic inflammation as a risk factor for atrial fibrillation in rheumatic mitral stenosis: can inflammatory biomarkers predict AF occurrence? (Cardiology)
8. Assessment of Nutritional Status, diet related morbidity and utilization of health care facilities in the elderly population aged 60 years and above (Human Nutrition Unit).
9. Assessment of prevalence of Vitamin D deficiency and associated factors amongst children in the age group of 6-18 yrs. from three high altitude regions (1000 meters and above) of Himachal Pradesh, India (Human Nutrition Unit).
10. Association of Vitamin D and Calcium with Development of Breast Cancer: - A Case Control Study (Human Nutrition Unit).
11. 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).
12. Effect of antioxidant supplementation on pancreatic function and markers of fibrosis in chronic pancreatitis: A randomized controlled double blind trial (Gastroenterology).
13. Prevalence of silent stroke in patients with mitral stenosis (Cardiology)
14. National Iodine Deficiency Disorders (IDD) and Salt intake Survey, India (CCM).
15. A comparison of Delnide and St.thomascardioplegia solution in pediatric open-heart surgery: A prospective randomized control trial (CTVS).
16. Role of cardiac biomarkers in risk stratification of patients with acute coronary syndrome (ACS) in the emergency department (Emergency Medicine).
17. Urine NGAL analysis with different doses of EACA in infants undergoing arterial switch operation (Cardiac Anesthesia).

Completed

1. Childhood Obesity in India: A Multi-center Study on its measurement and determinants (Endocrinology)
2. Re-establishment of Normal reference range of radioiodine uptake values (RAIU) in the era of universal salt iodination (Nuclear Medicine).
3. Neuroendocrine stress response in robotic urological strategy: Dexmedetomidine based versus fentanyl based total intravenous anesthesia, Neuroendocrine stress response in robotic urological strategy: Dexmedetomidine based versus fentanyl based total intravenous anesthesia (Anesthesiology).

PUBLICATIONS

Journals: 12

PATIENT CARE

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. Pneumatic tube system was installed for transport of samples from wards and dispatch of the reports. The list of tests being carried out in the laboratory and their workload is as follows:

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Glucose, KFT, LFT, Ca, PO4, Amylase	31,000
Digoxin	100
Cyclosporine	25
Lipid profile	22000
CK	4800
CK-MB	3000

LDH	6000
ASO	4320
CRP	6000
Thyroid profile, prolactin, Cortisol	8400
Homocysteine	430
Vitamin B12	4920
Vitamin D	2385
PTH	596
Adrenaline and noradrenaline	657
VMA	508
HbA1c	8836
Hemogram	32945
PT/INR	30000
APTT	5000

Professor R. Lakshmy acted as External national expert for UNICEF to help them identify the most qualified lab for a survey on comprehensive assessment of the nutritional status of preschool and school-age children and adolescents in India. Expert member of project review committee of Indian Council of Medical Research in the area of Obesity and Metabolic Syndrome, 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. Attended as an expert a National consultation cum Brain Storming Session (BSS) on “Fortification of Edible Salt and Priority Areas for Research & Way Forward” organized by DBT

NUCLEAR MEDICINE

HIGHLIGHTS

Cardiac Nuclear Medicine (CTC) is a specialized Nuclear Cardiology unit where diagnostic nuclear cardiological procedures are performed. 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, this unit is involved in thesis or research paper work of six students including MD, DM and MSc. students where nuclear cardiology is part of their research work. The unit is 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 is also collaborating with other departments in six funded project, two of which are funded by ICMR, one by International Atomic Energy Agency and one funded by National Heart, Lung and Blood Institute (NHLBI), USA.

EDUCATION

Lecture for undergraduates, training of Postgraduate students: 28 (19 MD Nuclear Medicine students and 9 M.Sc. Nuclear Medicine Technology students on rotational basis in Nuclear Cardiology). Two Thesis/research papers were completed and three new thesis werestarted.

Lectures delivered: 3

Oral papers/poster presented: 4

RESEARCH

Funded projects

Ongoing

1. Value of intraventricular synchronism assessment by Gated SPECT myocardial perfusion imaging (MPI) in the management of heart failure patients submitted to cardiac resynchronization therapy Dr. Chetan D Patel, International Atomic Energy Agency IAEA, Vienna, 3 yrs, 2013 -16, 5 lakhs - till date

Departmental projects

Ongoing

1. Relationship between left ventricular dyssynchrony, myocardial perfusion abnormalities and systolic function assessed on Tc99m-MIBI myocardial perfusion SPECT in comparison with quality of life and functional status of heart failure patients
2. Comparison of Myocardial perfusion abnormalities detected by stress adenosine Tc99m MIBI Myocardial Perfusion SPECT and Coronary Flow Reserve on adenosine stress echocardiography for the screening of patients after Arterial Switch Operation
3. Characterization of inferior wall defects on Myocardial Perfusion Imaging using Simind Monte Carlo Code and its clinical validations
4. To detect perfusion defects in right ventricle in Eisenmenger syndrome on Tc99m- MIBI myocardial perfusion Imaging.

Completed

1. Assessment of cardiac dyssynchrony in patients with non-ischemic dilated cardiomyopathy undergoing Cardiac Resynchronization therapy using Tc-99m MIBI myocardial perfusion imaging. Comparison with Radionuclide ventriculography.
2. Feasibility of F-18 FDG in diagnosis of infective endocarditis.

Collaborative projects

Ongoing

1. Role of SECT-MPI & coronary CT angiography in the assessment of patients at Intermediate risk of coronary events (Cardiology)
2. Role of stem cell after late opening of infarct related artery (COAT trial) (Cardiology, Stem cell facility, Cardiology).
3. International Study of Comparative Health Effectiveness with Medical and Invasive Approaches. (ISCHEMIA TRIAL) (Cardiology).
4. Manual thrombus aspiration with fractional flow reserve guided stenting during primary angioplasty (Cardiology).
5. Prevalence of symptomatic and asymptomatic coronary artery disease in patients with ischemic stroke and TIA (Neurology, Cardiology).

Completed

1. Labeling of stem cells with Technetium-99m - hexamethylene propylene amine oxine (Tc99m HMPAO) and to detect the homing of stem cells in the myocardium after intra- coronary injection (Cardiology, Stem cell facility).

PUBLICATIONS

Journals: 5

Abstracts: 1

PATIENT CARE

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 performs myocardial perfusion study which is an integral investigation in the diagnosis and management of patients with coronary artery disease. 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 and evaluation of patients on pacemaker. We also perform cardiac PET imaging with N-13 NH₃ perfusion and F-18 FDG glucose metabolic studies for assessment of myocardial viability.

Total Number of patients investigated in Nuclear Cardiology from 1/4/14 to 31/3/2015

Myocardial perfusion study	1483	RNV study	808
Cardiac PET	45	Misc.(V/Q scan,1 st pass)	50
Total number of studies performed	2386		

CARDIAC PATHOLOGY

HIGHLIGHTS

Cardiac Pathology was involved in routine diagnostic reporting of Histopathology & Cytopathology cases, Teaching of undergraduate students -Teaching of Postgraduate students, Coordinating post graduate seminars, journal clubs -Teaching nursing students, Conducting Pulmonary Pathology interdepartmental conferences, Research and developmental activities, especially related to Cardiac and Pulmonary Pathology and Other duties as & when rendered by the Institute.

EDUCATION

Routine diagnostic reporting of Histopathology & Cytopathology cases. Teaching of undergraduate and postgraduate students. Coordinating postgraduate seminars, journal clubs. Teaching nursing students. Conducting Pulmonary Pathology interdepartmental conferences. Research and developmental activities, especially related to Cardiac and Pulmonary Pathology.

CMEs/Workshops/Symposia/National and International Conferences:

1. Organized Workshop of the IAP-ID (International Academy of Pathology – Indian Division) on 13th June 2014 and Mid-Year Symposium of the IAP-ID held at AIIMS, New Delhi on 14 - 15 June 2014
2. IIIrd Annual Conference of the Delhi Chapter of Indian Academy of Cytologists, held at AIIMS on 13 September 2014.

Lectures delivered

Ruma Ray: 1 Sudheer Kumar A: 5

Oral papers/posters presented: 3

RESEARCH

Funded projects

Ongoing

1. Expression of Matrix Metalloproteinase-2, Matrix Metalloproteinase- 9, Tissue Inhibitor Metalloproteinase Tissue Inhibitor Metalloproteinase-2, Collagen I and IV Expression in Thoracic Aortic Aneurysms, Dr. Sudheer Arava, AIIMS, Two years, 2013, 500000/-

Departmental projects

Ongoing

1. Characteristics of thrombus aspirated in Patients undergoing primary PCI For Acute Myocardial Infarction and its prognostic significance
2. Study on Metformin in Bleomycin-induced Pulmonary Toxicity in rats

3. Immunohistochemical expression of jak-p, stat-3 and bcl-2 in oral squamous cell carcinoma with and without lymph node metastasis and verrucous carcinoma.
4. Autologous non-cultured Dermal cell suspension transplantation in the treatment of Facial volume Loss
Dermoscopic study of hyper pigmentation
5. Clinicopathological study of lupus Miliaris Disseminatus Faciei and Granulomatous chelitis
6. HPV-16 and EGFR mutation in oral squamous cell carcinoma and verrucous carcinoma
7. Evaluation of Arjuna [*Terminalia arjuna* (Roxb.)] and Tulsi [*Ocimum sanctum* (Linn.)] in Experimental Pulmonary Artery Hypertension in Rats.

Completed

1. Pathological Evaluation Of Dilated Cardiomyopathy With Special Referenceto Histological And Morphometric Analysis Of Fibrosis, Capillary Density, Arteriolar Density And Pattern Of Collagen Iv Distribution –A Study On Endomyocardial Biopsies And Explanted Native Hearts
2. Prevalence of Coronary Atherosclerosis in Young Indians: An Autopsy Study
3. Immunohistochemical study of e-Cadherin, â-catenin and vimentin in oral squamous cell carcinoma, verrucous carcinoma in comparison with that of a metastatic squamous cell carcinoma in a cervical lymph node.
4. A Clinico morphological study of cutaneous tuberculosis with special emphasis on immunohistochemistry.
5. Assessment of histopathological features of maculopapular viral exanthem and drug induced exanthema

Collaborative projects

Ongoing

1. Fibrosis in heart failure (Pharmacology, Cardiology, UK)
2. 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).

PUBLICATIONS

Journals: 12

PATIENT CARE

Specimens

Routine	280 Nos. of cases	Research	193 Nos. of cases
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Slides Coated

APES	46254 Nos. of slides
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Other work

Immunohistochemistry	107 cases	H & E slides	70
Unstained coated	382		

Manual processing

Post cardiac transplant biopsies	9
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AWARDS, HONOURS AND SIGNIFICANT EVENTS

Editorial committee member for the journals: Journal of the Practice of Cardiovascular Sciences. AIIMS, New Delhi and The Indian Journal of Dermatopathology and Diagnostic Dermatology. Faculty of the department participated in the Delhi Chapter quarterly meet of Indian Association of Pathologists & Microbiologists on 26 April 2014. Attended the UKEIRI Project Work Presentation meeting Held at Royal Brompton and harefeild hospital, London on 25-30 March 2015.

STEM CELL FACILITY

HIGHLIGHTS

The facility was started in 2005 with an aim to initiate research in the field of Stem Cell Biology at Basic, Pre-clinical and Clinical levels at AIIMS. It is supported by DBT as Center of Excellence for Stem Cell Research and has been recently upgraded to a unit with current Good Manufacturing Practices (cGMP). This cGMP unit was inaugurated by honorable ex- Minister of Health and Family Welfare, Dr. Harsh Vardhan on 21st August, 2014. At present, 33 research projects are ongoing which are funded by DBT, ICMR, UGC, AIIMS, etc. The regenerative potential of stem cells have been explored in to several degenerative and deficiency diseases. Clinical research/ trials have been initiated in this regard using stem cells, e.g., hair follicle derived stem cells in treating Vitiligo, Limbal and Oral mucosa stem cells for ocular surface reconstruction, bone marrow derived mononuclear cells in Dilated Cardiomyopathy, Myocardial Infarction, Stroke, Peripheral vascular disease, Biliary Atresia and Retinitis Pigmentosa. Some of the initial bench top research findings have been translated to patients in clinics. The Facility imparts training to post graduates and professionals from different institutions in India and Abroad. The Facility is continuously publishing research papers in peer-reviewed journals of national and international repute and winning awards. In the current year, there were 10 research publications and 14 abstracts presented at various scientific forums. The faculty of this Facility has been contributing towards formulating the guidelines related to stem cell research as a member of various GOI Committees.

EDUCATION

The department participates in programs for MSc (4), PhD (9) and MD (5). It provided Short term Training to 4 candidates

Lectures delivered

Sujata Mohanty: 10

Oral papers/posters presented: 6

RESEARCH

Funded projects

Ongoing

1. Association of cardiac specific genes towards generation of functionally active cardiomyocytes, derived from human Bone marrow Mesenchymal stem cell. Sujata Mohanty, ICMR, 3 years, 2012-2015, 49.9 lakhs
2. Role of mouse embryonic fibroblasts & human fibroblast feeder cells in maintaining self foreskin renewal of embryonic stem cells: Role of TGF- β & IGF-II. Sujata Mohanty, UGC, 2 years, 2013-2015, 4.50 lakhs
3. Sculpturing corneal constructs using micropatterned surface and decellularized corneas, Sujata Mohanty, DBT, 3 years, 2014-2017, 118 lakhs
4. 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, 56 lakhs

Completed

1. To compare the differentiation potential of mesenchymal stem cells derived from different sources (bone marrow, adipose tissue & dental pulp) into cardiomyocytes using 5-azacytidine and TGF- β 1 as inducers. Sujata Mohanty, AIIMS, 1 year, 2014-2015, 4 lakhs
2. Transplantation of Mesenchymal stem Cell in animal Models of Myocardial Infarction and Parkinson's disorder. Sujata Mohanty, DBT, 5 years, 2008-2014, 45 lakhs

Departmental projects

Ongoing

1. To explore differentiation potential of bone marrow derived Mesenchymal stem cells into functional cardiomyocytes

2. Study of functional dopaminergic neurons from human mesenchymal stem cells
3. In-vitro studies to explore strategies for extended utilization of donor corneal tissues by harnessing their full clinical potential
4. 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
5. Molecular Characterization of Steve Johnson Syndrome & its Ocular Sequelae.
6. Role of stem cell therapy to decrease pacing requirements in complete heart block
7. Isolation and Characterization of Mesenchymal Stem Cells derived from amniotic fluid.

Completed

1. To develop and characterize DMD-disease specific induced pluripotent Stem Cells from Adult Cells
2. Comparison of safety and biocompatibility between amniotic membrane and bio-polymer in healing of epithelial defect in an experimental model
3. Study of efficacy and safety of non cultured extracted follicular outer root sheath cell suspension transplantation in stable vitiligo
4. Evaluation of cultivated mucous membrane in reconstruction of anophthalmic contracted socket
5. Expression of cancer stem cell markers in retinoblastoma and their clinicopathologic correlation

Collaborative projects

Ongoing

1. Isolation and characterization of Mesenchymal Stem Cells from Amniotic fluid and Umbilical Cord (Obstetrics and Gynaecology).
2. Evaluation of autologous bone marrow derived stem cells in dry age related macular degeneration (RPC).
3. Cell sheet engineering for assembling human corneal construct (IIT).
4. Study of paracrine mechanism of autologous stem cell transplantation in stroke using bifunctional markers (Neurology).
5. Aplastic Anaemia and Telomerase Complex (Hematology).
6. Role of Bone marrow mononuclear cells and Renal Stem cells in renal preservation in Obstructive Renopathy – An Experimental study in mice (Pediatric Surgery).
7. Differentiation of mesenchymal stem cell on calcium infused PGA/PVA scaffold for bone tissue engineering (IIT).
8. Studies on non coding sequence in cancer and /or cellular stress models Delhi University, South Campus, New Delhi
9. To evaluate the combined effect of insulin like growth factor, transforming growth factor, fibroblast growth factor on growth of cardiac progenitor stem cell (Biophysics).
10. Design and development of polymeric scaffolds for diabetic wound healing (IIT).

Completed

1. Culture of limbal stem cell for ocular surface reconstruction in stem cell deficiency disorder (RPC).
2. Use of Autologous Bone Marrow Derived Stem cells For Rehabilitation of patients with Dry Age Related Macular Degeneration and Retinitis Pigmentosa: A Phase-I Clinical Trial (RPC).
3. Safety and Efficacy of Autologous Stem Cell in prevention of amputation in patients with chronic critical limb ischemia Department of Surgery, AIIMS
4. Development of a potential biopolymer to serve as an alternative substrate of human amniotic membrane for ex – vivo expansion of corneal epithelial cell (RPC).
5. Cancer Stem Cell Markers in Retinoblastoma and Clinical Correlation (RPC).
6. Technetium labeling of stem cell (Cardiology).

PUBLICATIONS

Journals: 8

PATIENT CARE

S. No.	Clinical Services	Number
1	Stem cell Transplantations Under clinical trials	25
2	Cryopreservation of hematopoietic stem cell from apheresis sample	17
3	Limbal Stem Cell Transplantation	08
4	Oral Mucosal Transplantation	10
5	Cord blood stem cell Cryopreservation	09
6	Amniotic Membrane Grafting	252

Facilities available

1. Mononuclear cell separation
2. Stem Cell enumerations by Flow Cytometer
3. Cryopreservation: Bone marrow mononuclear stem cell
 - i. Umbilical cord blood stem cells
 - ii. Hematopoietic progenitors isolated by Apheresis
4. Preparation of Amniotic membrane for corneal surface reconstruction

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Sujata Mohanty was awarded the ICMR International Fellowship for Senior Biomedical Scientists, 2014-15. Was member of Institute Committee of the following institutes for Stem Cell Research (1) National Institute of Immunology, New Delhi, (2) Institute of Liver & Biliary Sciences, New Delhi, (3) DBT Representation at Apollo Hospital, (4) National Brain Research Institute, Manesar and (5) Sir Ganga Ram Hospital, New Delhi. Member of the following committees: (1) DBT- Biotechnology Career Advancement and Reorientation Program for Women Scientists (BioCARE), (2) Biotechnology Industry Research Assistance Council (BIRAC), (3) High Powered Committee by Central Drug Standard Control Organization, Govt. of India, (4) MoHFW-stem cell donor registry, (5) Thalassemia guidelines, (7) ICMR-LSCT expert group. Was member of the Research Grant Review Committee for the following: (1) Department of Biotechnology, New Delhi, (2) Indian Council of Medical Research, New Delhi, (3) Department of Science and Technology, New Delhi, (4) Council of Scientific and Industrial Research, New Delhi. Member of the Journal Review Committee for World Journal of Stem Cells, Life Science, Journal of Biosciences, and CEINCA publishing group was Associate Editor for Current Trends in Stem cells and Regenerative Medicine (CTSR) and Scientific Reports, Nature Publishing House. Editorial Board Member for International Society for Cellular Therapy (ISCT). Was member of following International Bodies: (1) Society for Stem Cell Research (ISSCR), (2) International Society of Biological Chemists (ISBC) and (3) Immunological Society of India. She successfully established Centre of Excellence for Stem Cell Research and initiated first of its kind facility with current Good Manufacturing Practices (cGMP) in AIIMS for Stem Cell Clinical Research on 21st August, 2014. Participated in Lok Sabha TV Discussion on Stem Cell Therapy & Banking on 8th May, 2014 in Parliamentary House, New Delhi.

ORGAN RETRIVAL AND BANKING ORGANIZATION

HIGHLIGHTS

ORBO coordinated the registration of Heart Valve Bank and Linkage of AIIMS with National Organ and Tissue Transplant Organization (NOTTO) under DGHS, Ministry of Health & Family Welfare, Govt. of India for the purpose of networking in organ sharing.

Nurses Training Programme on Cadaver Organ and Tissue Donation Process was organized. 100 nurses from AIIMS and other hospitals of Delhi were trained. Dr. Harshvardhan, Former Minister of Health & Family Welfare, Govt. of India unveiled the awareness campaign on organ donation. Sh. J.P. Nadda, Hon'ble Minister of Health & Family Welfare, Govt. of India inaugurated blood, organ and tissue donation programme in Trauma Centre. 78 numbers of awareness camps were organized for public education and awareness generation on organ and tissue donation. 213 organs and tissue were procured for transplantation in needy patients. 3033 persons pledged for organ and tissue donation on motivation of ORBO. Brain Death Donor Registry is 25000. ORBO contributed in framing Guidelines on Whole Body Donation and organ retrieval in Medico-Legal Cases alongwith Deptt. of Health and Family Welfare, Govt. of NCT of Delhi. Guidelines regarding ICU Teams for Deceased Organ Donation at AIIMS and JPN Apex Trauma Centre also developed.

EDUCATION

Organized Training of Nurses on Cadaver Organ and Tissue Donation Process. 100 nurses from AIIMS & other hospitals were trained. Provided orientation of 800 nurses on organ and tissue donation in Nurses Induction Training. Integrated Lecture on Management of Coma & Brain Death & Organ Donation to MBBS Students, AIIMS

Lectures delivered: 8

RESEARCH

Departmental projects

1. To Study Communication between Health Care Providers as a tool of patient safety in the Department of GI Surgery, AIIMS
2. Study of Investigations and Charges thereof in various labs at AIIMS
3. A study on Professional quality of nurses and burn out in nurses at AIIMS Hospital

PUBLICATIONS

Journals: 2

PATIENT CARE

In patient care/supportive activities include information regarding: (a) facilities available in the department (including special clinics and/or special laboratory facilities (b) community services/camps etc.

Work of Additional Medical Superintendent- Cardio Thoracic & Neuro Sciences Centre

1. Management and Administration of Cardio Thoracic & Neuro Sciences Centre – 422 Bedded Super Specialty Centre. Having 15 Operation Theatres including Intra-op MRI Facility, 107 ICU beds, 7 Cath Labs along with state-of-the art Gamma Knife facility.
2. Human Resource Management, Integration and co-ordination of patient care, clinical, diagnostic and support services.
3. Supervision of nursing, sanitation, security, administration, stores and other support staff for blood bank, labs, manifold, reception, laundry, CSSD etc.
4. Implemented the system of (i) Nursing Floor Coordinators for administrative aspects and ward management (ii) Patient Care Coordinators for clinical and nursing care management of patients at C.N. Centre
5. Developed and implemented feedback mechanism for housekeeping services.
6. Induction training of newly recruited nursing staff at CNC
7. Constituted committees for patient grievance and redressal system
8. Implemented patient complaints and suggestions boxes at CNC
9. Hospital supplies and procurement.
10. Computerization of Stores of CN Centre.

11. Co-ordination for VVIP care at C.N. Centre.
12. Member of various committees in C.N. Centre & AIIMS

Faculty In-charge -Organ Retrieval Banking Organisation (ORBO)

1. Contributed in framing guidelines on whole body donation and organ retrieval in MLCs alongwith Department of Health & Family Welfare, Govt. of NCT of Delhi
2. Coordinated in Registration of Heart Valve Bank
3. Coordinated in Linkage of AIIMS with NOTTO for the purpose of networking for organ sharing
4. Compiled data of Nodal Officers of AIIMS of organ and tissue transplant on the e-portal of Delhi Govt.
5. 213 organs and tissues were procured for transplantation.
6. Donor Registry: 3033 persons pledged for organ donation on motivation of ORBO. Total number of Registry till dated is about 25000.
7. Collaboration with various organization to promote the noble cause of organ & tissue donation.
8. Dr. Harshvardhan, Former Cabinet Minister of Health & Family Welfare unveiled the awareness campaign on organ donation.
9. Sh. J.P. Nadda, Hon'ble Cabinet Minister of Health & Family Welfare inaugurated blood, organ and tissue donation programme at JPN Apex Trauma Centre.
10. Prepared guidelines regarding ICU Teams for Deceased Organ Donation at AIIMS and JPN Apex Trauma Centre.

Total No. of IEC activity on organ donation organised : 78

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Arti Vij was Independent (Non-Official Part Time) Director on the Board of HLL Life care Ltd Govt. of India Enterprise. Was Member Advisory Group in National Organ Transplant Programme under the Directorate General of Health Services, Ministry of Health & Family Welfare, Govt. of India. Received Letter of appreciation from Sh. ArunJaitley, Hon'ble Minister of Finance, Corporate Affairs and Defence for excellent care and professionalism in patient care and from Sh. G.E. Vahanvati, Attorney General of India for exceptional care and supervision of treatment. Received Certificate of Appreciation for outstanding contribution to National Eye Bank.

BLOOD TRANSFUSION CENTRE

HIGHLIGHTS

The **Blood Transfusion services** of C.N. Centre caters to round the clock transfusion needs of patients admitted in C.N 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 and various serological tests.

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.

Serological tests performed in the BTS include tests for blood grouping, screening for irregular antibodies, compatibility tests using latest technology like column agglutination. Every unit of blood collected is tested for transfusion transmissible infections like Hepatitis B, Hepatitis C, HIV- 1 and 2, syphilis and Malaria. In addition, test for CMV is carried out for heart transplant cases. 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.

Quality management system is in place for its products like blood and blood components, equipments, processes, and services. Pneumatic Tube System was installed and in use for transporting Patient blood samples and forms. Computerisation of the Blood Bank activity has been achieved and integration with the HIS is in process.

HIGHLIGHTS

Dr Anjali Hazarika, CMO, enrolled for PhD in Department of Blood Bank CNC in February 2015.

CMEs/Workshops/Symposia/National and International Conferences

Dr Anjali Hazarika

1. Organised in house training for lab technicians in “Use of Rapid Elisa Tests” for viral markers on 16 October 2014
2. Organised training sessions for all technical and nursing staff of BTS in co- ordination with members of National Informatics Centre and Computer facility, AIIMS in the e-hospital system of BTS CNC after customising the software as per need in Feb-March 2015

RESEARCH

Collaborative projects

1. Generation and characterisation of HIV-1 Primary isolates from paediatric patients for their neutralisation susceptibility to broadly neutralizing antibodies (Biochemistry)
2. Immunomodulatory role of DC-SIGNR in HIV-1 infection (Biochemistry)
3. Study of expression of complement receptors and regulators on dendritic cells of HIV-1 infected antiretroviral naïve and treated individuals” (Biochemistry)
4. Targeting Telomerase Reverse Transcriptase (TERT) gene to immortalize Peripheral Blood Mononuclear Cells of patients with coronary artery disease (Stem Cell Facility)
5. Establishing normal reference range of serum Free light chains in healthy Indian adults (Lab oncology, BRAIRCH)

PUBLICATIONS

Journals: 2

PATIENT CARE

Blood Collected

Replacement donors	10688		
Voluntary in the department	280	Through mobiles	383
Family Voluntary Donors	9928		
Blood received from IRCS	273	Blood received from Main hospital	215
Blood received from hospitals	411		
Total collections	22178		

Blood Units issued

To CTVS/NS	26139	To Main hospital	741
To JPNATC	109	To IRCS	120
To other hospitals	742		
HIV/HBV/HCV/VDRL reactive units discarded	642		
Total no. of blood units issued	28493		

Lab Procedure-Serology

Blood Grouping ABO	89188	Blood Grouping RH	59860
Blood crossmatching	118760		

Screening for Infectious markers

HIV	26120	HBV	26376
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HCV	26182	VDRL	24015
MP	24015	NAT	22178
CMV	200		
Total	149086		

Units of blood components prepared

Fresh frozen Plasma	20153	Platelet Concentrate	16244
Recovered Plasma	1992	Cryoppt	1330
Packed Red Cells	22178	Single Donor Plateletpheresis	6
Total	61903		

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Anjali Hazarika was Member of State Blood Transfusion Council of Delhi, Govt of NCTD and was nominated Member of Core Committee of National Blood Cell, MoFHW, GOI. Nominated Member of Advisory Committee of Haemovigilance Programme of India, NIB, MoFHW, GOI. Arranged for 2 units of the rare Bombay Phenotype group, airlifted from Mumbai, for a patient in Neurosurgery in June 2014 and arranged for 5 units of the rare Bombay Phenotype group, air lifted from Mumbai, for a patient for Cardiothoracic Surgery in December 2014. Participated in Seminar on 'Blood Safety-Pathogen inactivation' on 7 July 2014. Attended Training Programme on Rapid Situational Analysis for Training Resource Group (TRG) by NACO on 22–23 July 2014.

10.2 Centre for Dental Education and Research

Chief

Naseem Shah

Professors

O.P. Kharbanda
Ajoy Roychoudhury

Ritu Duggal
Veena Jain

Additional Professors

Ongkila Bhutia

Vijay Prakash Mathur

Ajay Logani

Assistant Professors

Dalim Kumar Baidya

Devalina Goswami

HIGHLIGHTS

The centre has been designated as Collaborating Centre for Oral Health Promotion by World Health Organization. It has also been given the status of National Centre of Excellence for Implementation of National Oral Health Program by Ministry of Health and Family Welfare, Government of India.

Under the aegis of WHO, a Regional Consultation Meeting was organized for developing 'Action plan for promoting Oral Health and Surveillance in South-East Asia Region' from October 27-28, 2014.

Under the National Oral Health Programme (NOHP), Cancer Awareness Fortnight was observed from 7 to 22 November, 2014. On call from the CDER, several Dental Institutions from across the country had organized Oral Cancer awareness and screening for early detection. A 'Brainstorming Meeting for development of IEC material' for National Oral Health Programme was organized on 23 December, 2014.

A public lecture and media briefing on 'Healthy Body through Healthy Mouth' was organized on the occasion of World Oral Health Day (WOHD) on March 20, 2015. Approximately 800 people of the general public and media participated. Apart from this, a poster and slogan writing competition was also announced for the Dental College students and faculty members of the country.

EDUCATION

At present the Centre is conducting Postgraduate programs in Orthodontics, Prosthodontics, Conservative Dentistry and Endodontics and Oral and Maxillofacial Surgery and Ph.D. Programme in Orthodontics, Oral and Maxillofacial Surgery and Conservative Dentistry and Endodontics. The Centre also conducts teaching programmes for undergraduate MBBS and Nursing students during their clinical postings at the centre. The Centre has also developed a collaborative network of telemedicine for various dental institutions by the name of CollabDDS.

CMEs/Workshops/Symposia/National and International Conferences

1. Workshop on 'CollabDDS-Hands on Training of Medical and Dental Faculty', from April 20-22, 2014.
2. CME on 'Lingual Orthodontics Summit', from May 10-11, 2014.
3. CME on 'Recent Advances in Periodontal Surgeries' by Prof. Horowitz, University of New York, USA from February 20 to 21, 2015.
4. AOCMF Introductory seminar from September 22 to 23, 2014 at Lucknow.
5. AOCMF 'Principles in cranio-maxillo-facial fracture management' from October 17 to 19, 2014 at New Delhi.
6. CME on Minimally Invasive Dentistry by Dr. Jo E Frencken from Netherlands and Dr Rajiv Thaper on January 22, 2015 at New Delhi.

7. Training Programme on Tobacco Cessation for Dental Professionals organized on March 22, 2015 at New Delhi.
8. 'Designing Medical Research and Thesis 2014' organised under the aegis of Clinical Epidemiology Unit, AIIMS on July 24, 2014 at New Delhi.

Lectures delivered

Naseem Shah: 5

Ajoy Roy Choudhury: 8

Vijay Prakash Mathur: 3

Baidya: 1

O.P. Kharbanda: 21

Veena Jain: 2

Ajay Logani: 5

Devlina Goswami: 2

Ritu Duggal: 1

Ongkila Bhutia: 1

Dalim Kumar

Oral papers/posters presented: 22

RESEARCH

Funded projects

Ongoing

1. A randomized equivalence clinical trial to evaluate the efficacy of an innovative, non-obturation endodontic treatment protocol "SealBio" for mature, permanent non-vital teeth as compared to conventional endodontic treatment with root canal obturation. Naseem Shah. ICMR. 3 years. Rs. 20 lakhs.
2. Cleft Lip and Palate anomaly in India: Clinical Profile, Risk factors and current status of Treatment—A Hospital based study: Task force project (pilot phase). O.P. Kharbanda. ICMR. 3 years. Rs. 26,78,819 (+ Rs. 5,59,866).
3. Diabetes Mellitus and Oral Candidiasis: Species specific prevalence. Ritu Duggal. ICMR. 3 years. Rs. 36.89 lacs.
4. A study to evaluate correlation between markers for hypercoagulability and development of temporomandibularankylosis in mandibular condylar fracture patients. Ajoy Roychoudhury. AIIMS. 3 years. Rs. 5 lakhs.
5. Bone Resorption Assessment in Cases of Mandibular and Maxillary Implant Supported Overdentures with Different Attachment Systems. Veena Jain. DST. 3 years (extended for one year). Rs. 70 lakhs.
6. Effect of Bisphosphonate therapy on density of jaw bones in patients having skeletal metastasis- A Pilot study. Veena Jain. ICMR. 2 years. Rs. 10,93,860.

Departmental projects

Ongoing

1. Co-relation of the radiographic size of a periapical lesion with the degree of invasion and penetration depth of bacteria into apical dentinal tubules of teeth with asymptomatic apical periodontitis
2. Evaluation of two regenerative protocols for the management of true combined endo perio lesions: a randomized non – inferiority clinical trial
3. Correlation of canal orifices location with the site of carious lesion in molars- An ex-vivo study
4. A comparative evaluation of irrigation with 2.5% NaOCl at 20° and 45° C with positive pressure syringe, NaviTip FX, EndoVac, Vibringe Sonic and passive ultrasonic irrigation in debridement, disinfection and periapical extrusion- a scanning electron microscopic and microbiological study
5. Comparative Evaluation of Fracture Resistance of Fuji IX GP Extra (encapsulated GIC), Posterior Composite and Amalgam Restorations in Class II Box Only Cavities – an in vitro Study
6. Remineralizing Efficacy of Silver Diamine Fluoride and Fluor protector N varnish on enamel: An ex-vivo quantitative energy dispersive x- ray (EDX) analysis
7. Quantitative evaluation of high mobility group box 1 protein level around miniscrew site during orthodontic tooth movement.
8. Retrieved orthodontic miniscrew: Measurement of insertion and removal torque measurements on in-vitro study

9. Pattern of microbiological colonization of orthodontic miniscrew implants.
10. Reliability and validity of PA cephalometric measurements: a comparison of conventional and computerized cephalometric analysis software.
11. Cellular responses secondary to biochemical surface of modification of grade V titanium alloy for orthodontic miniscrew
12. Three dimensional skeletal dentoalveolar changes following RME and Facemask therapy in growing skeletal class III patients using CBCT
13. The levels of MMP-8 around mini screw implant site during orthodontic tooth movement
14. To test whether hypercoagulable state of blood is a risk factor for post-traumatic temporomandibular joint ankylosis and in-vitro effects of hypoxia and activated protein C on mesenchymal stem cells
15. Comparative evaluation of treatment outcome after arthrocentesis versus class IV laser therapy in internal derangement of temporomandibular joint-a randomized controlled trial.
16. A combined polysomnographic and radiographic study to evaluate the effects of arthroplasty on Obstructive Sleep Apnea in Temporomandibular Joint Ankylosis Patient
17. Evaluation of short term treatment outcome after systemic lycopene therapy versus cryotherapy in management of oral leukoplakia- a randomized controlled trial
18. A randomized Controlled trial comparing the treatment outcomes of Autologous blood and dextrose prolotherapy in temporomandibular joint dislocation/subluxation
19. A prospective study to evaluate the EMG changes in diaphragic and mylohyoid muscles complex area following genial distraction in retrogenia patients
20. Arthroscopic Lavage in internal derangement of Temporomandibular Joint – A prospective study
21. Evaluation of Mandibular Kinematics and Quality of Life of Patients with alloplastic TMJ replacement in TMJ ankylosis among Indian population
22. A Cluster Randomised Controlled clinical trial to evaluate fate and volumetric shrinkage of interposed pedicled buccal pad of fat and abdominal fat in treatment of TMJ ankylosis A comparative evaluation of change in stability and crestal bone height around immediately placed dental implants with L- PRF and allograft to fill the periimplant gap.
23. Comparative evaluation of change in crestal bone height around titanium implants with titanium and zirconia abutments.
24. A comparative evaluation of natural tooth wear opposing polished and glazed Zirconia.
25. Effect of soft liner on masticatory efficiency and bite force in complete denture patients.
26. Treatment satisfaction in maxillectomy patients after prosthodontics rehabilitation and its association with their socioeconomic status- a preliminary study.
27. Arthroscopic lavage in internal derangement of TMJ – a prospective study
28. A randomized controlled trial comparing the treatment outcomes of autologous blood and dextrose prolotherapy in TMJ dislocation/subluxation
29. Evaluation of short term treatment outcome after systemic lycopene therapy versus cryotherapy in management of oral leukoplakia- a randomized controlled trial.
30. A prospective study to evaluate the EMG changes in diaphragic and mylohyoid muscles complex area following genial distraction in retrogenia patients.
31. Co-relation of the radiographic size of a periapical lesion with the degree of invasion and penetration depth of bacteria into apical dentinal tubules of teeth with asymptomatic apical periodontitis
32. Evaluation of two regenerative protocols for the management of true combined endo perio lesions: a randomized non – inferiority clinical trial
33. Correlation of canal orifices location with the site of carious lesion in molars- An ex-vivo study

34. A comparative evaluation of irrigation with 2.5% NaOCl at 20° and 45° C with positive pressure syringe, NaviTip FX, EndoVac, Vibringe Sonic and passive ultrasonic irrigation in debridement, disinfection and periapical extrusion- a scanning electron microscopic and microbiological study
35. Comparative Evaluation of Fracture Resistance of Fuji IX GP Extra (encapsulated GIC), Posterior Composite and Amalgam Restorations in Class II Box Only Cavities – an in vitro Study
36. Remineralizing Efficacy of Silver Diamine Fluoride and Fluor protector N varnish on enamel: An ex-vivo quantitative energy dispersive x- ray (EDX) analysis

Completed

1. Application of electronic apex locator as an adjunct for optimized sodium hypochlorite medicated root canal disinfection- an *ex- vivo* study
2. Comparative evaluation of fracture strength of endodontically treated anterior and posterior teeth by conventional endodontic treatment and after seal bio a non obturation endodontic treatment with modified preparation technique: an ex-vivo study
3. Effects of protraction facemask therapy on maxillary sinus volume in class III patients
4. Quantitative Evaluation of Palatal Sites for Placement of Orthodontic Mini-Screw
5. Reliability and Validity of Cephalometric Measurements: A Comparison of Conventional and Computerized Cephalometric Analysis Softwares.
6. A Study of Cranial Base Morphology, frontal and Sphenoidal Sinuses in class III patients
7. 3D Study of Maxillo-Mandibular Morphology in Skeletal class III malocclusion patients Cadaveric study of anatomical distance of terminal facial nerve branches associated with temporomandibular joint in indian population.
8. Prospective evaluation of autotransplantation of third molars for replacement of grossly decayed/ malformed first or second permanent molars.
9. Longitudinal changes in masseter and temporalis muscle before and after temporomandibular joint ankylosis surgery: An EMG study. A comparative evaluation of MMP-8 level around titanium and Zirconia abutments (a pilot study).
10. Comparative evaluation of hard and soft occlusal splint on electromyographic activity in patients with moderate to severe occlusal wear.
11. Cadaveric study of anatomical distance of terminal facial nerve branches associated with TMJ in Indian population.
12. Prospective evaluation of auto transplantation of third molar for replacement of grossly decayed / malformed first or second permanent molars
13. Evaluation of facial nerve morbidity in patients undergoing TMJ surgeries via preauricular extended temporal incision.
14. Application of electronic apex locator as an adjunct for optimized sodium hypochlorite medicated root canal disinfection- an *ex- vivo* study
15. Comparative evaluation of fracture strength of endodontically treated anterior and posterior teeth by conventional endodontic treatment and after seal bio a non obturation endodontic treatment with modified preparation technique: an ex-vivo study

Collaborative projects

1. Network Enabled Medical Diagnosis and Education in Skeletal Imaging Using X-rays. Ritu Duggal. National Informatics Centre (NIC), New Delhi; Central Scientific Instruments Organisation, Chandigarh; Indian Institute of Technology, Mumbai; Department of Radio-diagnosis, All India Institute of Medical Sciences, New Delhi.
2. Design and testing of orthodontic miniscrew embedded with sensors to detect inflammation – Phase I. Ritu Duggal. Department of Biomedical Engineering, Indian Institute of Technology, New Delhi.

3. Automatic Landmark Detection for 3-D Cephalometric Analysis using CBCT data. Ritu Duggal Central Scientific Instruments Organisation (CSIO), Chandigarh
4. Automatic segmentation of upper airway using CBCT scans data. Ritu Duggal. Central Scientific Instruments Organisation (CSIO), Chandigarh.
5. Effect of Bisphosphonate therapy on density of jaw bones in patients having skeletal metastasis- A Pilot study; Departments of Radiology and IRCH.
6. To assess the effectiveness of Educational- package regarding ILL effects of tobacco use and its treatment on knowledge, attitude and practice of smokeless tobacco users; College of Nursing, AIIMS.
7. Translating Head and Neck Cancer markers into Diagnostic assays. Shyam S. Chauhan. Department of Biotechnology & International Science and Technology Partnership Canada funded project. 5 years. Rs. 78.51 lakhs.
8. To evaluate the oral analgesic requirement and patient satisfaction with and without the use of benzydamine hydrochloride oral rinses in lower third molar extraction patients: A randomized controlled trial-pilot study.
9. Comparative evaluation of two doses of Etoricoxib (90mg and 120mg) as pre-operative preemptive analgesic for postoperative pain relief in mandibular fracture surgery under general anaesthesia: A randomized, prospective double blinded placebo controlled trial.
10. Optimum timing of LMA Proseal insertion after induction of anaesthesia with propofol in adults: a randomized time response study
11. Peri-operative Complications of Obstructive Sleep Apnoea Patients Undergoing Upper Airway Surgeries: A Retrospective Analysis
12. Comparing efficacy of local anaesthetics in TMJ ankylosis surgeries, in controlling post operative pain.

PUBLICATIONS

Journals: 53 Abstracts: 4

PATIENT CARE

The Centre provides state of the art facilities for advanced treatment of various problems in almost all specialties of Dentistry. The Centre also has special care facilities for interdisciplinary treatment of patients with Cleft Lip and Palate, Temporomandibular Joint Surgery, Cranio-facial trauma, Orthognathic and Aesthetic Surgery of face, Oral and Maxillofacial Pathology, Maxillofacial Infections, Surgery for Obstructive sleep apnea, Trigeminal neuralgia, Oste-odontokeratoplasty, Oral & Maxillofacial Prosthodontics, laminates, occlusal splints, implant supported prosthesis (Removable & Fixed), and Maxillofacial Prosthesis (extraoral/ facial and Intraoral), Endodontic retreatment, Endodontic microsurgery, root regeneration, periodontal surgery, special needs and preventive dentistry.

The Centre has functional operation theatre for Department of Oral & Maxillofacial Surgery and laboratories for fabrication of various removable and fixed prosthodontic and orthodontic appliances. This year the round-the-clock inpatient ward was also inaugurated in the Department of Oral & Maxillofacial Surgery.

The Centre is also providing community outreach service for dental treatment at AIIMS Rotary Midtown Hospital, Trilokpuri.

Speciality Clinic Data

S.No.	Clincs	New	Old	Total
1.	Trigeminal Neuralgia	105	143	248
2.	Combine Cleft Palate	40	417	457
3.	Oral Prophylaxis	8438	3883	12321
4.	Orthodontics	2037	15371	17408
5.	Prosthodontics	4461	9589	14050
6.	Restorative-cum-Endodontic	6692	19663	26355

7.	Oral and Maxillofacial Surgery	16516	18327	34843
8.	Periodontics (Minor Surgery)			567
9.	Radiology			34101
10.	OPD patients	37922	6421	44343
11.	Operation	Major	Minor + Extraction	Total
		320	1159+12474	13953

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Naseem Shah has been President of Indian Society for Dental Research and International Association for Dental Research (India Section) during the year. She has been providing leadership role as Director of WHO Collaborating Centre for Oral Health Promotion and Project Director for National Oral Health Programme. She was invited as the country representative to the 6th Asian Chief Dental Officers' meeting held from August 14 to 16th, 2014 held at Kuching, Malaysia. She is a member of apex committees for various programmes of Ministry of Health and family Welfare such as Tobacco control, Health and Oral Health. She has been the Member for Selection Committee meeting for the post of Professor in July, 2014 at Patna and for Selection of Senior Research Associated (SRA- Scientist Pool) meeting in August 2014 at CSIR, New Delhi. She was also member for Central Government Health Services (CGHS) DPC meeting for promotion to the post of Associate Professor/Reader (Oral Pathology and Oral Microbiology) held in September 2014 at New Delhi.

Professor O.P. Kharbanda was conferred with 'Founder President Award' of the Indian Society for Dental Research and International Association for Dental Research. He has taken over as President Elect of the Indian Society for Dental Research/International Association of Dental Research – India Division. He has been appointed as an Expert member of Academic Council of King George's Medical University (KGMU), Lucknow. He was invited to deliver the first Kolkata Orthodontic Study Group Oration during '49th Indian Orthodontic Conference' and was also nominated as co-chair of the 'International Task Force 2017 on Cleft Lip and Palate' of the International Confederation of Cleft Lip Palate and Related Craniofacial Anomalies. He chaired the committee of 'National Dental Excellence Award 2014' of the Prime Time Research Media and was invited as Chief Guest to CDE Programme on 'Clinical Pearls in Orthodontics – An Indian Board of Orthodontics Awareness Programme'. He served as expert to the Research Advisory Board of Dr. D.Y Patil Vidyapeeth University, Pune and to ICMR for reviewing research projects in the field of Oral Health, Biomedical Engineering and was part of the Advisory Committee for postgraduate research grants. He served as a Subject Expert member of inspection of initiation of MDS at Ch. Charan Singh University, Meerut. He also served as PG Examiner at Maharishi Markendeshwar University, TU Institute of Medicine (TMU) Kathmandu, Nepal. He was invited by the Lok Sabha Television to participate in 'Health Show' programme on August 1, 2014 and on January 10, 2015 and also invited by the Doordarshan Kendra to participate in 'Swasth Bharat-Decay Problems (Dental)' for DD News on October 10, 2014. Prof. Kharbanda also served as Chairman of the Ethics Committee of Manav Rachna Dental College (MRDC), Faridabad.

Professor Ritu Duggal has been appointed as Chairperson of Ethical Committee of Faculty of Dental Sciences at SGT University, Gurgaon. She was also an Expert Committee Member constituted by Ministry of Health & Family Welfare, Govt. of India for hearing to Dental Colleges for starting/increase of seats/renewal of MDS/PG Courses for the Academic Session 2015-16. She has been invited as a Panelist for CME in Orthodontics entitled "An Insight into Orthodontic Post Graduate Examination-2015" held at Jamia Millia Islamia, New Delhi. She has also served as Subject Expert to carry out the inspection for extension of affiliation in MDS Course at Ch. Charan Singh University. Dr Duggal was also an Expert Member in the Selection Board for the Interview for Recruitment of Teaching Faculty posts for ESIC Medical College, Faridabad (Haryana), ESIC Medical College, Mandi (Himachal Pradesh) and for the post of Medical Officer (Dental) for IIT Delhi Hospital. She was invited to participate in a Panel Discussion on 'Career Balance and Interaction with Role Model' at Indian Institute of Public Administration (IIPA), Delhi. She was an examiner to conduct Oral and Practical Examination in the subject of orthodontics at Faculty of Sciences, King George's Medical University, Lucknow, Baba Farid University of Health Sciences, Faridkot, Jaipur Dental College, Jaipur, Pt. B. D. Sharma University of Health Sciences, Rohtak.

Professor Ajoy Roychoudhury has been an Inspector for the Dental Council of India and also has been in the committee of Ministry of Health and Family Welfare to review the decisions of Dental Council of India pertaining to recognition to various Dental Colleges in India. He has served as an expert to the selection committee at Public service commission Uttar Pradesh, King Georges University Lucknow, ESI hospitals and the six new AIIMS in India. He has been a reviewer for British Journal of Oral and Maxillofacial Surgery, National Medical Journal of India, Dental Traumatology and National Journal of Oral and Maxillofacial Surgery.

Dr Vijay Prakash Mathur received a Commonwealth Academic Fellowship for 3 months during which he worked at Department of Epidemiology and Public Health at University College, London. He also served as Member Secretary for the Institute Ethics Sub-Committee for Monitoring of Adverse Events in Clinical Trials and a Member of Board of Studies for Pedodontia for Dr. Z. A. Dental College, Aligarh Muslim University, Aligarh. He has served as Expert for Scheme for Young Scientists and Technologists of the Department of Science and Technology and for evaluation for Short Term Studentship projects of ICMR. He was also a Member of committee for review of existing guidelines for conferment of Emeritus Professorship at AIIMS, New Delhi and member of Security and Traffic Advisory Committee of AIIMS. He was also invited to become subject expert for Subject Review Committee for National Formulary of India for year 2014 by Drug Controller of India. He was elected as Representative of Continuing Dental Education of Indian Dental Association- South Delhi Branch for year 2012-13 and is serving as Executive Member of Indian Society for Dental Research (ISDR- India Section). He is also on the editorial board of Acta Odontologica Scandinavica and Gerodontology and has been reviewer for several national journals of repute.

Dr Baidya was selected as National Editor of Chettinad Medical Journal.

10.3 Dr B.R. Ambedkar Institute Rotary Cancer Hospital

Professor and Chief

G.K. Rath
(Radiation Oncology)

Professors

P.K. Julka
(Radiation Oncology)

N.K. Shukla
(Surgical Oncology)

Subhash Chander
(Radiation Oncology)

Rajive Kumar
(Laboratory Oncology)

Lalit Kumar
(Medical Oncology)

Sidhartha Sathpathy
(Hospital Administration)

S.V.S. Deo
(Surgical Oncology)

Sanjay Thulkar
(Radio Diagnosis)

Sushma Bhatnagar
(Anaesthesiology)

Atul Sharma
(Medical Oncology)
(on long leave)

Sameer Bakhshi
(Medical Oncology)

Additional Professors

Seema Mishra
(Anaesthesiology)

Pratik Kumar
(Medical Physics)

D.N. Sharma
(Radiation Oncology)

Suman Bhaskar
(Radiation Oncology)

Ritu Gupta
(Laboratory Oncology)

Sushmita Pathy
(Radiation Oncology)

Assistant Professors

Haresh K.P.
(Radiation Oncology)

Chandrashekhara S.H.
(Radio Diagnosis)

Anita Chopra
(Laboratory Oncology)

Subhash Gupta
(Radiation Oncology)

Pranay Tanwar
(Laboratory Oncology)

Sanjeev Kumar Gupta
(Laboratory Oncology)

Amar Ranjan Singh
(Laboratory Oncology)

Sunil Kumar
(Surgical Oncology)

Maj. M.D. Ray
(Surgical Oncology)

Durgatosh Pandey
(Surgical Oncology)

Sachidanand Jee Bharti
(Anaesthesiology)

Vinod Kumar
(Anaesthesiology)

Rakesh Garg
(Anaesthesiology)

Nishkarsh Gupta
(Anaesthesiology)

Ajay Kumar Gogia
(Medical Oncology)

Ranjit Kumar Sahoo
(Medical Oncology)

Prabhat Singh Malik
(Medical Oncology)

Administrative Officer

R.K. Sharma

Finance and Chief Accounts Officer

D.P. Gangal

Stores Officer

Pradeep Gupta

Resident Doctor	81	Group 'A' official	27	Group 'B' Official	338
Group 'C' Official	167	Part Time Social Guide	06	Outsourced House Keeping Staff	129
Outsourced Security Staff	76	Outsourced Data Entry Operators	18	Outsourced Sanitation Staff	76

HIGHLIGHTS

Anaesthesiology

- Unit is being upgraded to Department of Anesthesiology, Pain and Palliative care.
- Two new courses- MD, Palliative Medicine and DM, Onco-Anesthesiology are being started

Delhi Cancer Registry

- The Delhi Cancer Registry is a Population Based Cancer Registry which collects cancer patient's data from more than 169 government or private hospitals/centres, 250 nursing homes, 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 had registered 5854 new cancer cases and over the years the new cancer incidence has been increasing and in 2009 the registered incidence was 15244 cases. The reports prepared by registry are being widely used by researchers, govt. organization etc.

Laboratory Oncology

- Dr Rajive Kumar, Dr Sanjeev Gupta and Dr Anita Chopra became part of the iCicle protocol for acute lymphoblastic leukemia. This is the first major multi-institutional protocol-based study being developed for several centers in India as well as the EuroFlow group of UK.
- Advanced work-up of leukemia- this laboratory provides for IRCH as well as for several departments of AIIMS main hospital has undergone expansion.

Medical Oncology

- Department of Medical Oncology is actively involved in the patients care, research and teaching. Department has a regular DM (14 students) and PhD (5 students) and summer training program. Total of 64 papers were published in various International and national medical journals, and more than 25 invited lectures were delivered in various International and national meetings. Medical oncology faculty was invited by a number of Universities in India as examiner for DM. Five 'in house' symposia for PG students were conducted.
- Department is active on the research front as well; 13 research projects are being run at present funded by various international, national, Govt and non Govt agencies and 5 research projects have been recently completed. There is a regular lab service for patients care, these include cytogenetics and PCR facilities for CML patients, CD 34 enumeration and cryopreservation facilities for stem cell recipients.
- All this was possible with hard work, and sincere efforts put up all the members of the department.

Medical Physics

- Department of Medical Physics takes care of radiation safety aspect of all medical imaging machines using x-rays at AIIMS as this is mandatory by statute. This Dept also undertake periodic quality assurance measures and optimization of radiation dose of machines and services of Dr BRA IRCH, C.N. Center, Dental Center, R.P. Center for Ophthalmic Sciences, Departments of Radiology, Orthopaedics, Urology, Anesthesia, Trauma center and Neuro Surgery. In total, 3618 measurements, tests, experiments, exposures and blood bag irradiation was carried out during 2014-15. Presently the Dept. is registering all x-ray emitting machines and radiation workers with Atomic Energy Regulatory Board, Mumbai. The Department has a very active research programme (Ph.D.) in Medical Physics encompassing medical imaging and dosimetry.

Surgical Oncology

- All the faculty members of the department participated in the under graduate and post graduate teaching and structured training of 27 Senior Residents which included 15 M.Ch students and 12 non academic senior residents. The departmental faculty is involved in M.Ch teaching, training, and guiding their thesis work. The faculty acted as

co-guide in thesis work of various departments including Radiation Oncology, Medical Oncology, Biochemistry, Biotechnology and Geriatric medicine etc. They participated in 34 CME programs, National and International conferences by giving lectures, participating in panel discussion and presenting educational videos. The faculty and residents of the department have presented 20 papers in National and International conferences. The department is involved in 11 research projects and 6 collaborative research projects and 2 departmental and 2 collaborative research projects have been completed during the year. 18 research papers were published in various national and international medical journals along with 1 book and 2 abstracts in journals. The faculty and residents are participating in special cancer clinics for breast cancer, gastro intestinal cancer, head and neck cancer, gynecological cancer, bone and soft tissue tumours, thoracic cancer, Hepatobiliary pancreatic cancer and genitourinary cancer. There are 2 Surgical Oncology OPDs on Tuesdays and Thursdays. The department is providing major and minor operation facilities to patients of cancer. 1388 complex major operations, 6814 minor operations and various diagnostic and therapeutic endoscopy procedures were performed during the year. Faculty participated in community services by giving advice to ostomats, giving talk in All India Radio and participating in cancer awareness camps organized by NGOs. The faculty are involved as members of editorial boards, reviewer of research papers and members of national and international bodies. The faculty members acted as examiners for M.Ch Surgical Oncology and MS Surgery examinations of various medical colleges and institutions. They also participated in conducting All India MBBS and Post Graduate examinations.

EDUCATION

Anesthesiology

Orientation classes for Nurses, Nursing Students, OT technicians and paramedics in the ICU, operation theatres and palliative care unit.

Laboratory Oncology

- Laboratory Oncology provides morphology, myeloma and flow cytometry training to residents from pathology, hematology and lab medicine. In addition, residents from medical oncology, pediatrics also receive training here. Short – term training is given to MSc students from various colleges all over India.

Medical Oncology

Undergraduates:

No. of lectures/seminars	Seminars 2, Lectures-2	No. of lectures/seminars	Seminars 2, Lectures-2
Hours per week/year spent in clinical teaching, demonstrations/tutorials			6 hours per semester

DM Programme:

Medical Oncology is running a DM program under which there are 14 regular students.

PhD Training:

Five PhD. students are pursuing their work in various aspects of Medical Oncology.

Medical Physics

- The Department of Medical Physics imparted training and education regarding Physics of medical imaging, radiation protection, radiation dosimetry physics and quality assurance tests in medical imaging to the students of MD Radiology, MBBS, BSc (Hons) Nursing and BSc (Hons) Radiography. One PhD student was awarded degree and rest three students are pursuing their Ph.D. course.

Radiodiagnosis

- Department held routine academic activities including radio-conferences, participation in UG and PG teaching as assigned. Faculty participated in the various symposiums held in IRCH and the institute.

Surgical Oncology

- Undergraduate teaching: The faculty was involved in undergraduate teaching by giving didactic lectures and by participating/ moderating seminars on oncological topics.

- Post graduate teaching: The faculty was involved in teaching and training of 15Mch surgical oncology students and 12 surgical oncology senior residents, DM medical oncology residents and MD radiotherapy junior residents by giving didactic lectures, moderating seminars, journal clubs etc. & clinical teaching during ward rounds and in special cancer clinics of IRCH. Dr. Shukla and Dr. Deo acted as chief guides and Co- guides in the thesis of MCh surgical oncology students. They also acted as Co-guides and Co-supervisors in DM medical oncology thesis, MD radio diagnosis MD radiation oncology thesis & PhD students from different dept. of BRA IRCH & AIIMS. The faculty was also involved in teaching & training of dental surgery residents and M Ch students from RCC, Thiruvananthapuram who are posted on one month rotation.

- Para clinical teaching/training: The faculty was involved in the teaching of the B.Sc. nursing students.

- Long and short term training:

1. Dr Than Singh Tomar MCh student – 2 months from 2nd January 2015 to 30th March 2015.
2. Dr Dephne Antonysamy from Malaysia – 6 months from 1st march 2015 to 31st August 2015.
3. Dr Arvind Kumar – 6 months from 16th February 2015 to 15th August 2015.

CME /Workshop/Symposia/National and International Conference

Anesthesiology

1. 4th Annual Foundation course in Palliative Care; 21-23 March 2015; JLN Auditorium, AIIMS, New Delhi
2. Certificate Course Programme of Indian Association of Palliative Care, 12, 13th July 2014; Dr. B. R. Ambedkar Institute Rotary Cancer Hospital; New Delhi
3. Vijaya Gottumukkala, Professor, Department of Anaesthesiology and Perioperative Medicine Deputy Houston, TX 77030, Consultant Anaesthesiologists, MD Anderson, visited the centre and took a guest lecture, 2014
4. Dr Girish Joshi, Consultant Anaesthesiologists, USA, visited the centre and took a guest lecture, 2014
5. Organized Workshop on “Ultrasound guided nerve blocks and Palliative Care” 17th May, 14 at AIIMS, Jodhpur
6. Organized Awareness Session on Cancer CME- Palliative care on 17th May, 14 at BSF hospital Jalandhar

Laboratory Oncology

1. 7th The Cytometry Society meeting and 15th Indo-US clinical cytometry workshop October 25 – 27, 2014, AIIMS, New Delhi organized by Dr. Rajive Kumar, Professor & Head, Laboratory Oncology Unit, Dr. BRAIRCH, AIIMS, New Delhi.

Medical Oncology

1. Symposium on “Management of Germ Cell Tumor” on 8th September 2014 at Seminar Room, IRCH
2. Symposium on “Management of CRPC” on 15th November 2014 at Seminar Room, IRCH
3. Symposium on TRIPLE NEGATIVE BREAST CANCER on 24th Nov 2014 at Seminar Room, IRCH
4. Symposium on “Primary CNS Lymphoma” on 31st January 2015 at Seminar Room, IRCH
5. Symposium for P.G. Students on “Management of Advanced NSCLC: A Case Based Discussion” was organized on 18/04/2015 at Seminar Room, IRCH

Lectures delivered

Anesthesiology

Sushma Bhatnagar: 17

Nishkarsh Gupta: 10

Seema Mishra: 10

Vinod Kumar: 1

Rakesh Garg: 18

Sachidanand Jee Bharati: 4

Delhi Cancer Registry

N. Manoharan: 5

Laboratory Oncology

Rajive Kumar: 1

Pranay Tanwar: 3

Ritu Gupta: 5

Amar Ranjan: 1

Sanjeev Kumar Gupta: 1

Medical Oncology

Lalit Kumar: 9

Sameer Bakhshi: 16

Ranjit Kumar Sahoo: 6

Medical Physics

Pratik Kumar: 5

Radiodiagnosis

Sanjay Thulkar: 6

Chandrashekhara S.H.: 9

Radiation Oncology

G.K. Rath: 9

Subhash Chander: 2

D.N. Sharma: 10

Sushmita Pathy: 4

Subhash Gupta: 3

Haresh K.P.: 3

Ahitagni Biswas: 1

Medical Physics

V. Subramani: 6

Surgical Oncology

N.K. Shukla: 6

S.V.S. Deo: 18

Sunil Kumar: 8

M.D. Ray: 3

Surgical Oncology**Oral papers/posters presented**

Anesthesiology: 9

Delhi Cancer Registry: 2

Laboratory Oncology: 13

Medical Oncology: 11

Medical Physics: 3

Radiodiagnosis: 5

Radiation Oncology: 13

Surgical Oncology: 20

RESEARCH**Funded projects****Anesthesiology****Ongoing**

1. Comparative evaluation of forced air warming and infusion of amino Acid enriched solution on intraoperative hypothermia in patients undergoing head and neck cancer surgeries: Aprospective randomized study; Dr Nishkarsh Gupta; AIIMS; 2013-15; 4 lakh.
2. Aprepitant Versus Dexamethasone For Preventing Postoperative Nausea And Vomiting in Breast Cancer Patients; Dr Sachidanand Jee Bharati; AIIMS; 2014-16;1 Lakh.

Delhi Cancer Registry**Ongoing**

1. Establishment of Hospital based Cancer Registries and patterns of care and survival studies on Cancer Breast, Cancer Cervix and Head & Neck Cancers; Dr. S.V.S. Deo; National Cancer Registry Programme, National Centre for Disease Informatics and Research, Indian Council of Medical Research, Bangalore; 2014-17; Rs.31,00,000 per annum(approx.).

Laboratory Oncology**Ongoing**

1. 1. Molecular analysis of cytogenetically normal acute myeloid leukemia; Rajive Kumar; DBT; 2014 – 2016; Rs. 5161008.
2. 2. Analysis of global methylation patterns in Wilms tumor; Anita Chopra (C-Investigator); AIIMS; 2014 2015; Rs. 500,000.
3. 3. Prognostic Relevance of DNA methylation in chronic lymphocytic leukemia; Ritu Gupta; DBT; 2011 2014; Rs 50,41,000.
4. 4. Interrogating the Myeloma Genome with reference to microRNAs modulated gene expression; Ritu Gupta; DBT; 2011-2014; Rs 69,74,000.

5. Design and Development of Leukoanalyzer, an Automated Computer Assisted Tool, for Minimal Residual Disease Estimation (MRD) in B-Lineage Acute Lymphoblastic Leukemia (ALL) using Image Processing Techniques; Ritu Gupta; Deity; 2014-2017; Rs 46,67,000.
6. Elucidation of pathologically relevant miRNAs responsible for disease progression and resistance to chemotherapy in Chronic Lymphocytic Leukemia (CLL); Ritu Gupta; DBT; 2015-2018; Rs 1,05,00,000.
7. IKZF1 (Ikaros) mutations in B cell acute lymphoblastic leukemia; Dr Sanjeev Kumar Gupta; AIIMS; 2013-2015; Rs 9,00,000.
8. Evaluation of expression of FGFR1, FGFR2, Cyclin D1 & PIK3CA and PIK3CA mutations in of Hormone Receptor (Estrogen & Progesterone) positive and HER2 receptor negative cases of primary breast cancer; Pranay Tanwar; DST; 2014-2017; Rs 25,00,000.
9. A prospective study to evaluate Wilm's tumor 1 (WT1) mutation in de novo cases of Acute myeloid Leukemia and correlating their outcome with treatment response; Pranay Tanwar; AIIMS; 2014-2016; Rs 2,00,000.

Completed

1. Detection of minimal residual disease in T-lineage acute lymphoblastic leukemia by a low-cost PCR analysis of clonal T-cell receptor gene rearrangement; Dr. Anita Chopra; AIIMS; 2012 – 2014; Rs. 9,85,400.
2. Th17 cells in pathobiology of multiple myeloma; Dr. Ritu Gupta; DST; 2012-2014; Rs 20,23,200.
3. Natural Killer & T-lymphocyte Subset Analysis in Multiple Myeloma; Dr. Ritu Gupta; ICMR; 2011-2014; Fellowship Grant.
4. Towards a comprehensive molecular score in CLL; Dr. Ritu Gupta; AIIMS; 2012-2014; RS 10,00,000.

Medical Oncology

Ongoing

1. Risk of cancer in mobile phone users; Dr. Lalit Kumar; ICMR; 2012- 2015; Rs 11,74,458.
2. Weekly paclitaxel in combination with carboplatin every 3 weeks for advanced epithelial ovarian Cancer; Dr. Lalit Kumar; Department of Biotechnology Government of India; October 2010 – October 2015; Rs 17,95,000.
3. Global Study to assess the addition of Bevacizumab to Carboplatin and Paclitaxel as first line treatment of epithelial ovarian Cancer Fallopian tube Carcioria or Priamary peritoneal Carcinoma; Dr. Lalit Kumar; Roche Product; November 2011 – October 2015; Rs 5,40,000.
4. A randomized phase III study of Imatinib dose optimization compared with Nilotinib in patients with chronic myelogenous and suboptimal response to standard – dose Imatinib; Dr. Lalit Kumar; Novartis India Ltd.; October 2011 – December 2016; Rs 1,50,00,000.
5. A multicentric open label phase III study to evaluate the safety and efficacy of Rituximab (Zenotech) in Non- hodgkin's Lymphoma, Dr. Lalit Kumar; Ranbaxy Foundation, Gurgaon; Feburay 2010 – August 2015; Rs 4,68,000.
6. Identification of prognostic marker in patients of Multiple Myeloma with light chain induced renal failure period; Dr. Lalit Kumar; ICMR; 2013-2015; Rs 2,04,750.
7. Study of bone Marrow Microenvironment in Multiple Myeloma; Dr. Lalit Kumar; AIIMS; 2012 – 2013; Rs 5,00,000.
8. Study of NF-KB Pathway in Myeloma; Dr. Lalit Kumar; AIIMS; 2013-2014; Rs 5,00,000.
9. Study of Molecular Genetics in MM; Dr. Lalit Kumar; DBT; 2015 - 2018; Rs 45,00,000.
10. Standardization of response assessment in chronic myeloid leukemia (CML); Dr. Sameer Bakhshi; DBT; 2011-15; Rs 71.48 lacs.
11. To Study clinical and biological significance of mutations in mitochondrial DNA regulatory region in acute myeloid leukemia; Dr. Sameer Bakhshi; DBT; 2013-2016; Rs 45.75 lacs.

12. A Phase III, Open Label, Randomized Trial Ofatumumab added to Fludarabine-Cyclophosphamide Vs. Fludarabine-Cyclophosphamide Combination in subjects with Relapsed Chronic Lymphocytic Leukemia; Dr. Sameer Bakhshi; Glaxo Smith Kline; 2011-2017; Rs 9 lakh.
13. A Phase III, Open Label, Randomized Multicentre Trial of Ofatumumab-Chlorambucil combination Vs. Chlorambucil monotherapy in previously untreated patients with Chronic Lymphocytic Leukemia; Dr. Sameer Bakhshi; Glaxo Smith Kline; 2011-2017; Rs 13 lakh.

Completed

1. A randomized, double – blind, placebo controlled, phase 3 study to assess the efficacy and safety of weekly farletuzumab (MORAB – 003) in Combination with carboplatin and Taxane; Dr. Lalit Kumar; Morphotek. Inc, USA; August 2010 to 2014; **Rs 10,00,000.**
2. Lenalidomide plus low dose Dexamethasone Versus Thalidomide Plus low dose dexamethasone for MM; Dr. Lalit Kumar; Dr. Reddy's Laboratories Pvt. Ltd; August 2008 - Onwards; August 2008 - Onwards; Rs 12,00,000.
3. Assessment of expression of Vascular Endothelial Growth Factor in Non Hodgkins lymphoma: A Prospective study; Dr. Sameer Bakhshi; AIIMS; 2013-2014; Rs 500000.
4. Treatment and Characterization of Acute Lymphoblastic Leukemia in Children, Adolescents and Young Adults; Dr. Sameer Bakhshi; International Network of Cancer Treatment and Research & Sir Ratan Tata Trust; 2005-2014; Rs 4.5 lacs/year for Clinical Management .
5. Pharmacokinetic and Toxicity profile of High Dose Methotrexate: relationship with Serum Creatinine and MTHFR Polymorphisms in Indian Children; Dr. Sameer Bakhshi; Jiv Daya Foundation; 2008-2014; Rs 8 Lakh /year.

Medical Physics

1. Evaluation of coronary artery plaque; Dr Pratik Kumar; ICMR; 2011 - 2014; Rs 25,58,783.

Radiation Oncology

1. A pilot study evaluating quality of life with AYUSH QOL-2C in non metastatic breast cancer patients treated with adjuvant chemotherapy/ radiotherapy and correlating it with molecular markers; Dr GK Rath; Central Council for research in Ayurveda & Siddha, Ministry of Health & Family Welfare, Govt. of India; 2010-15; Rs. 51,45,777.
2. PET guided interstitial brachytherapy from cervical cancer; Dr. D.N Sharma; AIIMS; 2012-2015; Rs % Lakhs.
3. Predictive biomarkers for response to neoadjuvant chemo-radiotherapy in locally advanced rectal cancer; Dr S. Pathy; AIIMS; 2013-14; Rs 5 lakhs.
4. A clinic epidemiological study of women with advanced cervical cancer and their quality of life following treatment in a tertiary care institute of Delhi; Dr Subhash Gupta; LHMC; 2013-15; Rs 0.
5. A pilot study to evaluate the tumoricidal effect of antiviral agents and herbal formulations in addition to radiotherapy in HPV positive carcinoma cervix cell lines; Dr Haresh KP, AIIMS; 2013; Rs Lakhs.
6. A prospective study to evaluate the effect of UPLAT in the management of chemotherapy-induced thrombocytopenia, Dr Haresh KP; Sanat Pharmaceuticals; 2013-15; Rs 1,90,000.
7. Postoperative hypo fractionated accelerated intensity modulated radiotherapy with concurrent and adjuvant temozolomide in the management of newly diagnosed glioblastoma; Ahitagni Biswas; Council of Scientific and Industrial Research, India (CSIR pool project); 2012-2014; Rs 55,000/ month.

Surgical Oncology

Ongoing

1. Pattern of care and survival studies in breast, head & neck and cervical cancer. Dr. SVS.Deo; ICMR, 2014 Current; Rs 700,000.

2. Aspirin/placebo in CRC; Dr.SVS.Deo; CD Pharma India; 2010-15; Rs ZERO.
3. Chemotherapy induced diarrhea trial; Dr.SVS.Deo; SCRI Singapore; 2012-Current; Rs 700,000.
4. INDOX Cancer Network; Dr.SVS.Deo; Oxford UK; 2006-15; Rs 500,000.
5. Phase II trial of Bev+gem+carb in TNBC metastatic; Dr.SVS.Deo; Roche; 2011-15; Rs 300,000.
6. Open label study of Neratinib+pali vs Trastuzumab+Pacli in first locally recurrent or metastatic Breast cancer; Dr.SVS.Deo; WYETH; 2009-16; Rs 200,000.
7. Evaluation of Diffusion Weighted Magnetic Resonance Imaging for assessment of response to Neo Adjuvant Chemotherapy in advanced Squamous cell carcinoma of oral cavity; Dr Sunil Kumar; AIIMS; 2014-15; Rs 1 Lakh.
8. Role of Fibrin sealant in Ilio Inguinal Block Dissection to reduce the rate of lymphatic drainage and seroma formation, thereby morbidity; Dr M D Ray; AIIMS; 2014-15; Rs. 60,000.
9. Mutation and expression analysis of RASSF1A, FAT4 and LATS2 genes in esophageal cancer patients; N K Shukla, S A Hussain; 2014-15; Nil.
10. Expression studies of FOXO gene family in Indian Breast Cancer Patients; N K Shukla, S A Hussain; 2014-15; Rs Nil.
11. Pattern and Associated factors of Lymph Node Involvement and Local recurrence among oral Cancer patients: Biostatistical Considerations; Dr. SVS Deo; 2014-15; Nil.

Completed

1. Evaluation of Clinicopathologic Characteristics, Treatment Outcome and prognostic factors in patients with Soft Tissue Sarcoma; Dr. N K Shukla, Dr. SVS Deo; 2013-15; Rs Nil.
2. Randomized double blind placebo controlled lapatinib in ErbB2 + breast cancer; Dr.SVS.Deo; GSK; 2007-15; Rs 500,000.

Departmental projects

Anesthesiology

Ongoing

1. To evaluate the effectiveness of nutritional counseling and “Improved Atta” supplementation in delaying progression of cachexia to refractory cachexia in adult cancer patients in Indian population.
2. To assess the correlation between nutritional status and quality of life in Indian adult palliative cancer patients.
3. To assess the role of Respiratory physiotherapy in the effectiveness of pleurodesis in adult patients with malignant pleural effusion.
4. To evaluate relation between sleep quality and cancer pain in patients admitted in palliative care unit -an observational study.
5. Impact of nutritional status on length of hospital stay in adult patients undergoing cancer surgeries: Prospective observational study.
6. An Exploratory Cross Sectional study to identify the social contents of pain in cancer patients
7. Development of tool to assess total pain in cancer patients
8. Molecular Determinates of Response to opioids in cancer patients: Indian Scenario
9. A Randomized Control Trial To Evaluate The Efficacy Of Scrambler Therapy In The Management Of Pain Due To Cancers Of Head, Neck and Thoracic Origin

Completed

1. To study the impact of nutritional intervention in delaying the progression of cachexia to refractory cachexia in female cancer patients: A study based in India

2. Development of a Comprehensive Protocol to assess Cancer pain and its implementation in Phase-1 at DRBRAIRCH,AIIMS
3. Evaluation of the Effect of Rhythmic breathing process-Sudarshan Kriya and Pranayam (SKP) on pain perception among advance stage cancer patients having pain.

Laboratory Oncology

Ongoing

1. Detection of MRD in AML by multicolor flowcytometry & its prognostic significance: a pilot study.
2. Detection of β -catenin mutations in hepatoblastoma in India.
3. Role of flow cytometric assessment of myeloid nuclear differentiation antigen in MDS.
4. Evaluation of Illumina BRCA custom panel.
5. An assessment of minimal residual disease (MRD) outcome in transplant setting in multiple myeloma.
6. Role of bone marrow microenvironment in multiple myeloma.
7. Analysis of Wnt signaling pathway molecules & their association with gene mutation in Acute Myeloid Leukemia.
8. Clinical biological significance of mutations in mitochondrial DNA.
9. Molecular determinants of response to opioids in cancer patients.
10. Evaluation of serum levels of Cystatin C and IL6 in patients of multiple myeloma.
11. An assessment of minimal residual disease (MRD) outcome in transplant setting in multiple myeloma.

Completed

1. Assessment of kinetics of Regulatory T cells (CD4⁺ CD25⁺ FoxP3⁺) and T helper 17 cells (CD161, CD196) in patients of pediatric Non-Hodgkin's lymphoma
2. Assessment of VEGF expression in Non Hodgkin lymphoma of children
3. Analysis of VEGF expression in soft tissue sarcoma patients.
4. Study of Numerical Changes In Chromosome In The Acute Lymphoblastic Leukemia In Indian Patients By Conventional Cytogenetics

Medical Oncology

Ongoing

1. MRI in Carcinoma Gall Bladder
2. Hand-foot-syndrome due to chemotherapy
3. Impact of educational material on chemotherapy related side effects.

Medical Physics

Ongoing

1. Development of protocol for quality assurance of medical image laser printer
2. Development of new luminescence material for dosimetry purpose
3. Calibration and use of optically stimulated luminescence dosimeter
4. Characterization of kidney stone using dual energy CT scanner
5. Development of protocol for quality assurance of fluoroscopy
6. Development of protocol for quality assurance of lead apron and thyroid collar

Radiodiagnosis

Ongoing

1. Role of MRI in assessing response to Neo-adjuvant chemotherapy in Ewing Sarcoma Family of Tumors.
2. Magnetic Resonance Image guided brachytherapy in cervical cancer: reporting vaginal, urethral and uninvolved uterus dose and clinical correlation.
3. Role of perfusion CT in predicting the response to chemo radiation in carcinoma cervix.
4. Role of diffusion weighted MRI for local Staging and response assessment after Neoadjuvant chemotherapy in locally advanced Squamous cell carcinoma of oral cavity.

Radiation Oncology

Ongoing

1. Randomized control trial of combined external beam radiotherapy plus HDR brachytherapy boost vs. external beam radiotherapy alone with intensity modulated radiotherapy in intermediate and high risk prostate cancer.
2. A Randomized study of hypo-fractionated vs. conventional radiotherapy in elderly Glioblastoma multiforme.
3. A Study of Dosimetric Effect of ITV (Internal Target Volume) In External Beam Radiotherapy.
4. MRI guided ICRT for cervical carcinoma.
5. Phase II randomized trial of hypo fractionated versus conventional radiotherapy in early breast cancer.
6. Treatment outcomes and determination of prognostic factors in Carcinoma of Uterine cervix
7. Patterns of care in Carcinoma Oesophagus: Experience from Tertiary Cancer Center in India.
8. Randomized (retrospective cum prospective) study of preoperative short course (25Gy) Vs preoperative concurrent radiotherapy (45Gy) and chemotherapy followed by surgery in rectal cancer.
9. Comparison of CT and MRI with diffusion weighted imaging in evaluation of response to chemo-radiotherapy in gall bladder carcinoma
10. Evaluation of patient specific pretreatment verification methods for Intensity Modulated Radiotherapy Techniques: Ph.D thesis
11. Efficacy and Safety of Intra-arterial chemotherapy in Retinoblastoma.
12. A Comparative assessment of quality of life impact of surgery and postop treatment in carcinoma larynx and carcinoma hypopharynx.
13. A study evaluating the patient positioning accuracy using Electronic portal imaging device (EPID) and cone beam computed tomography (CBCT) for image guided radiotherapy (IGRT) in the treatment of cancers.
14. Estimation of Radiation Dose from Computed Tomography (CT).

Completed

1. A randomized study of brachytherapy vs. chemo brachytherapy in locally advanced ca cervix.
2. A clinic epidemiological study of women with advanced cervical cancer and their quality of life following treatment in a tertiary care institute of Delhi.
3. Phase II prospective trial to study role of neoadjuvant chemotherapy with paclitaxel and carboplatin followed by chemoradiotherapy: The impact of EGFR receptor and targeted therapy in locally advanced cervical cancer
4. Evaluation of multimodal Treatment approach for extraocular Retinoblastoma: A Randomized study
5. Palliative stenting with Radiotherapy vs stenting with chemoradiotherapy for inoperable oesophageal carcinoma: A Randomized trial.
6. Role of PET CT in response evaluation following neoadjuvant therapy and assessment of distant metastasis in patients with carcinoma gall bladder

Surgical Oncology

Ongoing

1. Analysis of a computerized prospective database of patients with early breast cancer.
2. A prospective study evaluating incidence of DVT in patients undergoing surgery for thoracic and abdomino pelvic malignancies.
3. Review of clinic-pathological, epidemiological, imaging accuracy, treatment outcomes and prognostic factors of operable pulmonary metastases in Department of Surgical Oncology, IRCH, AIIMS.
4. Randomized study of Preoperative short course radiotherapy (25 Gy) Vs. preoperative Concurrent radiotherapy (45 Gy) and chemotherapy followed by Surgery in rectal cancer.
5. Role of PET– CT Scan (Positron Emission Tomography and CT Scan) in the Staging of Locally Advanced / Recurrent Breast Cancer as a Single modality in Comparison to Multiple Organ Directed Conventional Investigations (C.I)
6. Retrospective Analysis of A prospective computerized data base of patients with oral cancer.

Completed

1. Single Nucleotide Polymorphism of Toll-like receptor 4 (Asp299Gly, Thr399Ile)in Squamous Cell Carcinoma of Oral Cavity
2. Analysis of a computerized prospective clinical database of patients with locally advanced breast cancer
3. Analysis of a computerized prospective database of patients with Buccal and Alveo-buccal squamous cell carcinoma presenting to IRCH, AIIMS.
4. Role of proton Magnetic resonance spectroscopy in the management of soft tissue sarcoma.

Collaborative projects

Anesthesiology

Ongoing

1. Evaluation of coagulation status in trauma haemorrhagic shock patients (THS) who undergo emergency surgery using thromboelastography, Protein C and Protein S markers; JPNATC, AIIMS.
2. Molecular Determinants of Response to opioids in cancer patients : Indian Scenario; Department of Hematology, AIIMS.
3. Nature and frequency of spiritual problems and concerns faced by patients of the pain clinic, IRCH, AIIMS; Department of Theology, University of Ghent, Belgium.

Laboratory Oncology

Ongoing

1. Pediatric Hodgkin lymphoma – Biology and outcome; Medical Oncology.
2. Molecular determinants of response to opioids in cancer patients; Unit of Anaesthesiology, Dr. BRAIRCH, AIIMS.
3. Study of bone marrow microenvironment in Myeloma; Dept. of Medical Oncology, Dr. BRAIRCH, AIIMS.

Completed

1. Prognostic significance of Tregs in patients with advanced disease stage carcinoma ovary; Dept. of Medical Oncology, Dr. BRAIRCH, AIIMS.
2. Serial assessment of T-regulatory cells in pediatric NHL; Dept. of Medical Oncology, Dr. BRAIRCH, AIIMS.
3. To Study The Gene Expression Profile of Advanced Gall Bladder Cancer; Dept. of Medical Oncology, Dr. BRAIRCH, AIIMS.

Medical Physics

Completed

1. In vitro studies to explore strategies for extended utilization of donor corneal tissues (Medical Physics Unit & RPC of Ophthalmology)

Surgical Oncology

Ongoing

1. Circulating microRNAs as biomarkers for testicular germ cell tumours: A pilot study; Department of Microbiology.
2. Randomized control trial of combined EBRT plus HD brachy therapy boost versus EBRT alone with IMRT in intermediate & high risk prostate cancer; Department of Radiotherapy.
3. Functional status and co morbidities of older patients with cancer; Department of Geriatric Medicine.
4. A comprehensive analysis of mammalian target of rapamycin (mTOR) and mitogen activated protein (MAP) Kinase signaling pathways in non- small cell lung carcinoma; Department of Pathology.
5. Role of diffusion weighted MRI for local staging and response assessment after neoadjuvant chemotherapy in locally advanced squamous cell carcinoma of oral cavity; Department of Radiotherapy.
6. A study to assess the effectiveness of an educational package on knowledge regarding post-operative care of oral cancer patient's relatives following discharge; College of Nursing.

Completed

1. Molecular studies of Genes involved in Biosynthesis and Signaling of estrogen in Breast Cancer; Department of Surgical Oncology & Biotechnology, (JMI).
2. D-Dimer and other Coagulation parameters in Operable breast Cancer with Lymph Node Metastasis; Department of Surgical Oncology & Laboratory Medicine.

PUBLICATIONS

Journals: 132

Abstracts: 24

Chapters in Books: 21

Books: 1

PATIENT CARE

Anaesthesiology

Facilities available in the Department:

1. ICU facilities for post operative patients.
2. Pre Anaesthetic Checkup, Pain & Palliative Care Clinic is run four times in a week in addition to the anaesthesiology and critical care work.
3. Home support to patients with advanced malignancies by NGOs and keeping monthly meeting with them to know follow up reports.
4. Providing critical care to patients of Radio therapy, Medical Oncology, and Surgical Oncology.
5. Facility for Pediatric Radiotherapy.
6. Anaesthesia for minor pediatric oncology procedures like Bone marrow biopsy, Central line insertion, Bone marrow harvesting and others.
7. Anaesthesia for Rigid Bronchoscopic procedures and EBUS.
8. Facility for Pediatric radiological procedures under anaesthesia, Radio frequency ablation for liver, lung, and breast carcinoma.
9. Scrambler Therapy.

Laboratory Oncology

Hemogram (Hb/TLC/Platelets)	43905 each	Peripheral Blood Smear	7672 cases
Bone marrow aspirates and touch preparation	4361 cases	Cytochemistry	1039 tests
Serum protein electrophoresis	3535 cases	Urine electrophoresis	953 cases
Immunofixation	124 cases	Immunocytochemistry	33 tests
Fine needle aspiration cytology for leukemia cases	5 cases	CSF and pleural fluid cytospin	627 cases
SFLC	194 cases	ESR	408 cases
Flow cytometry of leukemias patients and 3218 tests, including BCR-ABL, MLL-AF4, TEL-E2A-PBX, AML-ETO, NPM1, FLT3-ITD, CBFB-MYH11, SIL-TAL.	21423 tests	Molecular biology	803

Medical Oncology

Department of Medical Oncology is actively involved in patients care, research and teaching. In the past one year clinical services provided by the department are as follows

Patients treated as in-patient:	2494	Patients treated in day care facility:	30613
Medical procedures:	5367	Outpatient chemotherapy:	13,982
Outpatient IV antibiotics:	21504		
Hematopoietic Stem Cell Transplantation (Autologous, Allogenic and Cord Blood): 92 (73+19)			

Medical Oncology Lab

Cytogenetics (Philadelphia Chromosome):	430	RT-PCR for BCR-ABL (qualitative):	409
RQ PCR for BCR-ABL (quantitative):	64	CD 34 counts (FCM):	209
CD 3 Counts (FCM)	12	MNC counts:	199
Cryopreservation at -80° C	106	Stem cell storage at 4° C:	100
Viability testing for stem cells:	168	ELISA for galactomanan (aspergillosis):	450
Screening for FIt-3 mutations:	22		

Aphaeresis lab

PBSC harvests:	201	SDP aphaeresis:	2301
Granulocyte aphaeresis:	14	Haemogram testing:	23071

Medical Physics

No. of blood bags irradiated	786	Quality Assurance tests done on x-ray machines	2108
QA tests done on Film Processor at Dr BRA IRCH	108	QA tests done on Film Processor at Radiology	108
Radiation output measurements in x-ray units	388	QA tests done on Film Processor at AIIMS	108
a. Radiation protection survey measurements	7	Advices in inadvertent exposure in pregnancy	5
Total	3618		

Radiodiagnosis

X rays:	19956	Ultrasound:	7095
Doppler study:	283	CT scan:	6842
Mammography:	1443	Special investigations:	399
Interventions:	1453		

Radiation Oncology

Community services/camps:

Sushmita Pathy

1. Expert for the dial in programme helpline on cancer awareness All India Radio FM Rainbow Dec 2014
2. Expert for the dial in programme helpline on cancer awareness All India Radio FM Rainbow Feb 2015

Subhash Gupta

1. Associated with the cancer screening activities of ICPO, Noida

K.P. Haresh

1. Participated as a team member of the AIIMS delegation to Ladakh to attend chronic and serious patients from 24 to 31 August 2014.
2. Took part in medical camps for the poor conducted in NCR by Mata Amritanandamayi Math, New Delhi.
3. Associated with the cancer screening activities of ICPO, Noida.

Surgical Oncology

A. Facilities available

1. Minor Operation Theater: Diagnostic and minor therapeutic procedures including Lymph node biopsy, punch/trucut biopsy, excision of Skin/Oral tumors, soft tissue tumors, feeding jejunostomy, colostomy, insertion of Hickman's catheter / chemo ports for long term Chemotherapy are available in the Minor O.T.
2. Endoscopy Services (Diagnostic & Therapeutic):
Diagnostic Endoscopy: Video and Fibre optic upper G.I. endoscopy, side viewing duodenoscopy, Colonoscopy, Sigmoidoscopy, Bronchoscopy, Cystoscopy, Nasopharyngo laryngoscopy and laparoscopy.
Therapeutic Endoscopy: Stricture dilatation, Intraluminal Radiotherapy, Stenting and Percutaneous Endoscopic Gastrostomy.
3. Major Operation Theater: Facilities available for all major cancer Surgeries including radical resection and reconstruction of tumors involving Head & Neck, GI tract, Breast, Bone and Soft tissue , Gynaecological malignancies, Hepato-Biliary-Pancreatic malignancies and Thoracic tumors. Advanced reconstructive surgical procedures are under taken to reconstruct the defects after resection.
4. In addition advanced state of art technologies like LASERS, CUSA, Harmonic Scalpel, Surgibone, Vesalius, Thoracoscopy and Intra Operative Radiotherapy are also available.
Minor Operations & Endoscopic procedures performed: **6814**
Major Cancer Operations performed: **1388**

Medical Record Section

Total Bed Strength:	182	Medical Oncology:	78
Radiation Oncology:	37	Surgical Oncology:	61
Palliative Care Unit:	6		

OPD Attendance

Total:	138125		
New patient's registered	11000	Revisits:	127125

S.No.	Name of OPD/Clinic	New Patients	Registered Revisits				
		Male	Female	Total	Male	Female	Total
1.	Adult Medical Oncology Clinic	462	524	986	16427	16907	33334
2.	Adult Lymphoma Leukemia Clinic	-	02	02	275	185	460
3.	AML/HL Clinic	70	39	109	1447	1059	2506
4.	ALL/CML Clinic	330	168	498	4107	2628	6735
5.	Breast Cancer Clinic	26	495	521	91	7104	7195
6.	Bone and Soft (Tissue) Clinic	147	83	230	647	465	1112
7.	Chemotherapy Evaluation	-	-	-	-	-	-
8.	Familial Cancer Clinic	-	01	01	-	-	-
9.	Gastro-Intestinal Clinic	368	276	644	1194	770	1964
10.	Gynaecology Clinic - 'A'	-	191	191	-	565	565
11.	Gynaecology Clinic - 'B'	-	384	384	-	1912	1912
12.	Gynaecology Clinic - 'C'	-	205	205	-	638	638
13.	Genitourinary & Gynae Clinic	66	94	160	441	413	854
14.	Head & Neck (Surgery) - A	358	84	442	1308	783	2091
15.	Head & Neck (ENT) – B	823	141	964	2782	1518	4300
16.	Hepatobiliary & Pancreatic Clinic	232	130	362	969	663	1632
17.	Lung Cancer Clinic	463	133	596	3670	1818	5488
18.	NHL/MM/CLL Clinic	128	73	201	1444	863	2307
19.	Neuro Oncology Clinic	233	111	344	614	428	1042
21.	Ophthalmic Tumour Clinic	06	05	11	01	01	02
22.	Paediatric Medical Oncology Clinic	299	116	415	7175	4732	11907
23.	Paediatric Lymphoma Leukemia Clinic	124	41	165	3933	2240	6173
24.	Paediatric (Surgery)	83	46	129	1517	978	2495
25.	Pain Relief Clinic	197	165	362	5728	4449	10177
26.	Pain & Palliative Care Clinic (Rt-Ii)	02	02	04	-	-	-
27.	Paediatric Palliative Care Clinic	01	02	03	-	-	-
28.	Radiotherapy Clinic	698	858	1556	5833	4846	10679
29.	Surgical Oncology (Clinic)	233	248	481	2196	1951	4147
30.	Thoracic Oncology Clinic	395	277	672	1874	1308	3182
31.	Transplant Clinic	16	09	25	523	330	853
32.	Urology Malignancy Clinic	298	39	337	2538	837	3375
	Total	6058	4942	11000	66734	60391	127125

Grand Total = 138125

Admissions	
Regular Admissions	7246
Short/Day Care Admissions	30812
Total Admissions	38058

Discharges and Deaths	
Regular Discharges	6919
Short/Day Care Discharges	28875
Total Discharges	35794
Total Deaths	358

Operation Theatre Services	
Major Operations	1388
Minor Operations	6814
Total Operations	8202

Electrocardiogram (ECG)	3681
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OPD procedures (Treatment Room No. 15)	5367
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OPD Chemotherapy Services (Treatment Room No. 15)	
Male	6579
Female	2917
Male Child	2739
Female Child	1283
Total Cases	13518

OPD Attendance New Patient's Registered

Month	Male	Female	Total
April – 2014	450	427	877
May – 2014	501	397	898
June – 2014	518	359	877
July – 2014	557	460	1017
August – 2014	528	427	955
September – 2014	614	485	1099
October – 2014	478	380	858
November – 2014	487	424	911
December – 2014	458	458	916
January – 2015	453	386	839
February – 2015	478	352	830
March – 2015	536	387	923
Total	6058	4942	11000

OPD Attendance Revisits

Revisits	Male	Female	Total
April 2014	4173	3575	7748
May 2014	5765	4872	10637
June 2014	4940	4650	9590
July 2014	6154	5514	11668
August 2014	5736	4944	10680
September 2014	6355	5728	12083
October 2014	5639	4754	10393
November 2014	5370	5039	10409
December 2014	6230	5209	11439
January 2015	5619	4995	10614
February 2015	5551	5134	10685
March 2015	5202	5977	11179
Total	66734	60391	127125

Geographical Distribution of New Patients

S. No.	State	Total
1.	Andhra Pradesh	10
2.	Andman Nicobar	01
3.	Assam	31
4.	Arunachal Pradesh	04
5.	Bihar	1551
6.	Chandigarh	03
7.	Chhattisgarh	22
8.	Delhi	3582
9.	Goa	01
10.	Gujrat	05
11.	Haryana	1142
12.	Himachal Pradesh	35
13.	Jammu & Kashmir	105
14.	Jharkhand	125
15.	Kerala	08
16.	Karnataka	02
17.	Madhya Pradesh	153
18.	Maharashtra	05
19.	Meghalaya	05

20.	Manipur	35
21.	Mizoram	03
22.	Nagaland	06
23.	Orissa	59
24.	Punjab	59
25.	Rajasthan	196
26.	Sikkim	17
27.	Tamilnadu	03
28.	Telangana	01
29.	Tripura	07
30.	Uttar Pradesh	3326
31.	Uttaranchal	372
32.	West Bengal	70
	Total	10944

Other Countries

1.	Armenia	01
2.	Bangladesh	01
3.	Nepal	51
4.	Nigeria	02
5.	Uzbekistan	01
	Total	56

Laboratory Oncology Services

1.	Hemogram (Hmg) – (Hb, Tlc, Platelets)	43905
2.	Peripheral Blood Smear (Pbs)	8076
3.	Bone Marrow Aspiration (Bm)	3957
4.	Cyto-Chemistry	1039
5.	Serum Protein Electrophoresis (Spe)	3535
6.	Immunofixation (Ifx)	124
7.	Urine Electrophoresis (Ue)	953
8.	Apaap	36
9.	Flow	21423
10.	Fnac (Lymph Node)	05
11.	Cyto-Spin	625
12.	Esr	447
13.	Mol Bio	680
14.	Sflc	194
	Total	84999

Apheresis

1.	Single Donor Platelets (SDP)	4520
2.	Peripheral Blood Stem Cell – Harvest (PBSC)	352
3.	Hemogram	23142
4.	Plasma	–
5.	Granulocyte	23
	Total	28037

Medical Oncology Laboratory Services

1.	Cytogenetics for detection of Philadelphia chromosome	430
2.	Cytogenetics for chimerism	–
3.	RT-PCR for detection of P210 and P190 translocation in CML (Qualitative)	409
4.	RQ-PCF for detection of P210 and P190 translocation in CML (Quantitative)	64
5.	CD 34 Counts By Flow Cytometry	209
6.	CD 3 Counts By Flow Cytometry	12
7.	Immuno Phenotyping For Leukemia	-
8.	MNC Counts	199
9.	Cryopreservation of Stem Cells – 80	106
10.	Storage of Stem Cells at 4	100
11.	Bone Marrow Transplant	-
12.	Infusion of Stem Cells	168
13.	Viability of Stem Cell	168
14.	Elisa for Aspergillosis Detection	450
15.	Screening of Flt-3 Mutations In Aml	22
	Total	2337

Medical Physics Services

1.	No. of Blood Bags Irradiated	786
2.	Quality Assurance Test done on X-Ray Machines	2108
3.	Quality Assurance Test done on Film Processor at Dr BRAIRCH	108
4.	Quality Assurance Test on Film Processor at Radiology (Main)	108
5.	Radiation Output Measurements in X-Ray Units	388
6.	Quality Assurance Test Done on Film Processor at AIIMS	108
7.	Radiation Protection Survey Measurements	04
8.	Advise in Inadvertent Exposure to Pregnancy	08
9.	Radiation Output Consistency in Mammography	–
	Total	3618

Radiotherapy Services

1.	Cases on Radiotherapy	35602
2.	Total Field on Radiotherapy	97895
3.	Cases on Brachytherapy	643
4.	Treatment Planning and Simulations	3679
5.	Two and Three Dimensional dose distributions	494
6.	Compensators	362
7.	Shielding Blocks Immobilization Devices and Orifits	1773
8.	Radiation Review Clinic	1499
	Total	141947

Radiodiagnosis Services

1.	C.T. Scan	6842
2.	Ultra-Sound	7095
3.	Mammography	1443
4.	X-Rays (Routine)	19956
5.	Doppler	283
6.	Intervention	1453
7.	Special Investigation (Ba,I)	399
8.	Us (Portable)	–
	Total =	37471

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Anesthesiology

Professor Sushma Bhatnagar is Chief Editor of Indian Journal of Palliative Care since 2009 till date; Board of Directors of International Association of Hospice and Palliative Care, USA, 2015; recipient of Leadership and excellence award amongst SARRC countries at 21st International Conference on Indian Association of Palliative Care, Feb 2014; Member of Organizing committee for 2nd International Conference on Opioids at Boston, USA, June 2014; Advisory Member at Development of Implementing Framework for Palliative Care Across India, Ministry of Health and Family Welfare, Govt. of India; Deputy Team Leader and Faculty for Training-of-Trainers in Palliative Care Programme at Asia Pacific Hospice Palliative Care Network 2014; Editorial Board Member of World Journal of Anaesthesiology and Annals of Palliative Medicine; Honorary faculty for certificate course of Indian Association of Palliative Care; Course coordinator for certificate course of Indian Association of Palliative Care (2008 to till date); reviewer of International Journals British Journal of Anaesthesiology, Clinical Journal of Anaesthesiology, Journal of Medicine and Medical Sciences, American Journal of Hospice and Palliative Care; Delivered fifteen keynote lectures at National & International Conferences. She is member of International Association of Hospice and Palliative care, International Association of Study of Pain, American Society of Regional Anaesthesia and Pain Medicine, American Society of Clinical Oncology, and life member of Indian Society of Anaesthesiology, Indian Association of Palliative Care, Research Society of Anaesthesiology and Clinical Pharmacology, Indian Society of Oncology, Indian Society of Critical care.

Dr Rakesh Garg was invited to join as Member of the Asian Council of Science Editors (The ACSE); Member of the Board of Advisers for the Nitte University Journal of Health Science (NUJHS), a quarterly, peer reviewed & indexed journal of Nitte University., 2014; External Paper setter for BSc (Anaesthesia and OT technician) for

Faculty of Medical Sciences, Punjab University, Government of India, GMCH, Chandigarh. April 2014 and March 2015; Nominee from Indian Journal of anaesthesia and JOACP for attending Brainstorming Session for IndMED/MedIND Databases, National Databases of Indian Medical Journals (ICMR Project) at iNOC Hall, NIC Hqrs., New Delhi, February, 2015; invited as Expert for review of ICMR Short Term Studentship (STS) programme reports, Dec 2014 At ICMR, New Delhi; Invited as Selection Committee Member for recruitment at Chacha Nehru Bal Chikitsalya (CNBC), an autonomous institute under Government of NCT of Delhi and an associate hospital of Maulana Azad Medical College; National Executive Committee member of All India Difficult Airway Association (AIDiAA), 2014-2016, received 2nd Best Prize in competition Video Presentation at AIRWAY 2014: The Airway Congress organized by Airway Management Foundation (AMF), New Delhi. He is Associate Editor of Journal of Anaesthesiology and clinical pharmacology, Journal of Addiction Medicine and Therapeutic Science, Global Journal of Anesthesiology. He is Academic Editor for British Journal of Medicine and Medical Research. He is Editorial board member of Indian Journal Of Anaesthesia, The Internet Journal of Anesthesiology, World Journal of Clinical cases, Journal of Robotic Surgery, Journal of Anesthesia and Pain Management, Journal of Drug Discovery, Development and Delivery, Imaging Journal of Clinical and Medical Sciences, Journal of Anesthesia & Surgery, Journal of Anesthesia & Critical Care.

Dr Nishkarsh Gupta is life member and reviewer of various journals. He won 2nd Best Prize in competition Video Presentation: at AIRWAY 2014: The Airway Congress organized by Airway Management Foundation (AMF), New Delhi.

Laboratory Oncology

Professor Rajive Kumar was part of the expert group for “ICMR Guidelines for Immunophenotyping of Hematolymphoid Neoplasms”.

Dr Anita Chopra received Beckton Dickinson - The Cytometry Society Award for Clinical Cytometry Research, 2014; Smt. Kunti Devi Mehrotra Award of Indian Association of Pathologists and Microbiologists – 2013, for the best published research work. She was part of the expert group for “ICMR Guidelines for Immunophenotyping of Hematolymphoid Neoplasms”. She received Young Researcher Travel Grant for Oral Presentation on History of pathology and Medicine, 2nd International Conference on History of Medicine and Pathology by Working Group of History of Pathology, European Society of Pathology; DBT-Travel Grant award for Oral Paper presentation at 2nd International Conf. on Predictive, Preventive and Personalized Medicine & Molecular Diagnostic, Las Vegas, USA, 3-5 Nov, 2014 by Department of Bio-Technology; Young scientist Fellowship Award by Department of Science and Technology. She became a certified Medical Laboratory Assessor of Accreditation Commission for Conformity Assessment Bodies, Ref.No. ACCAB/89:2012/914/009/ 12.11.2014. She was MBBS External Examiner in PMCH, Patna from Feb.20th-22th, 2015.

Medical Oncology

Professor Lalit Kumar gave ‘Padam Shri Professor Mehdi Hassan Award Oration’ during the Annual Meeting of the Indian Academy of Biomedical Sciences on 9.1.2015 held at CCMB Hyderabad and speaker meet the professor session chaired the plenary session during the 15th Biennial meeting of the International Gyanaecological Cancer Society, Melbourne, Australia, 8-11th November 2014. He delivered ‘Prof. Karim oration during the 9th SAARC federation of Oncologists (SIFO) meeting on 28.11.2014, at Delhi. He is Member Scientific Committee of the 15th Biennial meeting of the International Gynecologic Cancer Society held in Melbourne Australia from 8th to 11th November 2014; Section editor ‘Oncology’ – APL Textbook of Medicine 10th edition, 2015. He continues to be ”Member Editorial Board, Oncology , Karger Publishers and Editor, Jn Cancer Research and Experimental Oncology (JCREO). He examiner to Sher – i – Kashmir Institute of Medical Sciences Srinagar in 2015; External examiner for DM Medical Oncology at Madras Medical College Chennai on 12.2.2015; Appraiser for DNB in Medical Oncology to the Indraprastha Apollo Hospital and Army Hospital on 10.9.2014; External examiner for PhD thesis evaluation – Dr. MGR Medical University, Chennai (2015). He is subject expert for the faculty selection at the Indira Gandhi Institute of Medical Sciences Patna on 27.6.2014, and also Subject expert for the joint Assessment Committee for the Academic Session 2014 to 2015 at Guru Gobind Singh Indraprastha University in July 2014.

Professor Sameer Bakhshi was expert member for Drug Controller General of India to approve the new drugs and clinical trials pertaining to oncology.

Medical Physics

Dr Pratik Kumar was invited to referee manuscripts submitted to Urology Journal, Radiation Protection Dosimetry, Open Journal of Radiology, International Journal of Cancer Therapy & Oncology and Journal of Medical Physics; Examiner for M.Sc. (Medical Imaging Technology), examination, University of Delhi, B.Sc. Radiation Therapy Technology, Aligarh Muslim University, B.Sc, RTT course at S.N. Medical College, Jaipur; Visiting faculty at Dr B. Borooah Cancer Institute, Guwahati; Member, Expert Advisory Group, Healthcare Sector Council, National Skill Development Council; Question setter for Certification Examination for Qualified Medical Physicists by College of Medical Physics of India (CMPI), DMLT Radiology Examination, Aligarh Muslim University; Resource Person for Hands on Workshop on Radiation Protection, CME on Current Practices in Interventional Radiology and Radiation Protection, National Board of Examinations, Dwarka, New Delhi; External Expert for the selection of Medical Physicist and RT Technologist, Delhi State Cancer Institute, Delhi, Expert for the post of JRF, Deptt. of Physics and Astrophysics, Delhi University, Member Selection Committee to select JRF, Deptt. of Physics, Venkateswara College, University of Delhi; Examiner for a Ph.D. thesis from Homi Bhabha National Institute, Mumbai; panelist fir Initiative for strenghtining medcial physics profession in India at Jaypee Hospitals, Noida; Chaired a session on “Mathematical Methods and Imaging Dose” at 35th Annual Conference of Association of Medical Physicists of India, Pravara Institute of Medical Sciences, Loni, Maharashtra; Editor, Medical Physics Chronicle; Member, Editorial Board, Journal of Medical Physics; Member, Electro-medical Equipment Sectional committee, BIS, New Delhi; Member, Board of College of Medical Physics of India (CMPI).

Radiation Oncology

Professor G.K. Rath is Head of National Cancer Institute (AIIMS 2 campus) at Jhajjar. He is Chief Representative of Ministry of Health and Family Welfare, Govt of India to IARC Governing council, Lyon, France. He Inaugurated and delivered the keynote address at the 35th Annual conference of medical physicists of India AMPICON 2014 at the rural medical college of PIMS-DU, Loni Maharashtra on 20 November 2014. He was Chief Guest at the Silver jubilee celebration function of the department of Endocrine and Breast surgery on 7 September 2014 at SGPGI, Lucknow. He delivered the Dr Saroj Gupta Oration at the East Zonal Oncology CME under the banner of IASO at Thakurpukur, Kolkata on 16 November 2014. He was Guest of honor at the convocation ceremony at IGIMS, Patna on 13 February 2015. He was Chairman, standing selection committee for faculty selection of AIIMS, Bhopal. He is Member of the Academic committee of AIIMS, Bhopal. He chaired the Dr Samir Desai Oration at the workshop on prostate brachytherapy at the PD Hinduja Hospital on 9 August 2014 at Mumbai. He was chairperson for the Best of ASCO 2014 meeting at Hyderabad on 28 June 2014. He is member for Linear Accelerator specification scrutiny committee at Kidwai memorial institute of oncology, Bengaluru, Karnataka. Dr Rath was Chairman at Expert Committee constituted by the Ministry of Health and Family Welfare, Government of India for the establishment of a National Cancer Institute (NCI) under AIIMS at Jhajjar, Haryana; Scientific Advisory Committee (SAC) of National Centre for Disease Informatics and Research (NCDIR), Indian Council of Medical Research, Bangalore; PRSG of the DIT for the projects entitled a) ”Development of computer aided detection system for mammograms (CAD for mammograms) submitted by CDAC & RCC, Thiruvananthapuram. (b). Full automated computer aided diagnosis (CAD) System for human breast cancer using digital mammograms submitted by West Bengal University of Technology (WBUT), Kolkata; ICMR task force on “Cancer Management Guidelines” and selection committee for the post of scientist B at NCDIR, NCRP, Bangalore on 25 April 2014. He was Member of expert Committees/ Bodies of the Atomic Energy Regulatory Board (AERB), Govt of India; Selection committee for the Director of Kidwai memorial institute of oncology (KMIO) , Bengaluru; Member, Standing Committee on Radiotherapy Development Program, DGHS, Ministry of Health and Family Welfare, Govt. of India; Member, Indo American Cancer Association; Expert for the selection of faculty members for the Dept of radiation oncology at IGIMS, Patna; Expert for the selection of Asst Professor in the department of radiation oncology at RMLIMS, Lucknow; Expert for the selection of faculty at RCC Thiruvananthapuram on 24 April 2014; Expert for the interview of faculty posts for North eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Shillong; NATCANGRID (National Cancer Grid). He was External examiner for PhD at KGMU, Lucknow on 17 October 2014; MD Radiotherapy at KGMU, Lucknow on 1 May 2014; MD Radiotherapy at MGM Medical College, Indore on 17 May 2014; MD Radiotherapy at Sri Aurobindo Medical College, Indore on 18 May 2014. He was member Scientific Advisory Committee ICON, Technical Resource Group (Advisory group) on NPCDCS, Ministry of Health & Family Welfare, Govt of India; Scientific committee of Regional cancer center, Thiruvananthapuram; Carcinogenesis Foundation of India; PRSG meeting for transfer of technology for 6 MV Medical linac and review of following linac related projects: establishment of facility for batch fabrication of

linac tube and linear accelerator machine; design and development of dual photon energy and multiple electron energy; development and deployment of 6 MV medical linac for cancer treatment (phase II) being implemented at SAMEER, Mumbai; Scientific Advisory Committee of the Regional Medical Research Center (RMRC), Dibrugarh; Project Review Committee of North East (PRC-NE) of ICMR; Governing Bodies of three Regional Cancer Centers (Acharya Tulsi Regional Cancer Center, Bikaner, Acharya Harihara Regional Cancer Center, Cuttack and Regional Cancer Center, Agartala); Institute Body of AIIMS, Bhopal; Governing Council of Delhi State Cancer Institute (DSCI), Govt of NCT, New Delhi; Governing Body of the Bhagwan Mahavir Cancer Center, Patna; Indian Cancer Winner's Association; Project Review Committee, Oncology (PRC Oncology), Indian Council of Medical Research, New Delhi; Project Review Committee, North Eastern Region (PRC NE), Indian Council of Medical Research, New Delhi; Forum for Breast Protection; The sub group of Ministry of Information and Technology, Govt. of India to review the progress of the Jai Vigyan project, Ministry of Communication and Information Technology, Govt. of India on the development & deployment of 6 MV Medical Linear Accelerator and Cancer foundation, Delhi. He is Advisory Editor of Journal Academy of Hospital Administration. He is Member of Editorial Board of Indian Journal of Chest Diseases and Allied Sciences, Indian Journal of Cancer, International Journal of Biosciences and Technology, Journal of Contemporary Brachytherapy and South Asian Journal of Cancer. He is Consulting Editor for Journal of Cancer Research and Therapeutics.

Dr D.N. Sharma received AIIMS Research Excellence Award 2014 under clinical category.

Dr Sushmita Pathy was faculty incharge for designing and formulate Radiotherapy protocol for GI Cancer and Lung Cancer. She is member of editorial board Journal of Cancer Science, reviewer Sri Lanka Journal of Obstetrics and Gynecology; Expert Member committee at Guru Govind Singh Indraprastha University visited ISIC Institute of Rehabilitation Science regarding eligibility as a research centre on Oct 2014; expert member technical specifications for procurement of equipments at IRCH.

Dr Subhash Gupta was Judge for the best oral paper session at RGCON 2015; Selected as Associate Editor of International Journal of Oncology Science and received partial travel grand from the ISNO to attend the 11th meeting of the Asian society of neuro oncology ASNO2014 at Istanbul Turkey.

Dr K.P. Haresh was awarded the Fellowship of the Association of Radiation Oncologists of India- Underwent one month of training in Real time trans-rectal ultrasound guided HDR brachytherapy of Prostate cancer at Sana Klinikum Offenbach, Germany in February 2015; Selected as Editor in Chief of International Journal of Oncology Science and received partial travel grand from the ISNO to attend the 11th meeting of the Asian society of neuro oncology ASNO2014 at Istanbul Turkey.

Dr Rambha Pandey was judge for the award posters in the Annual Conference SAARC federation of Oncologist 2014, Gurgaon, November 28th 2014 to November 30th 2014.

Surgical Oncology

Professor N.K. Shukla participated in a cancer awareness and detection program on 6th April 2014 organized by a NGO; acted as reviewer of research publications in Indian Journal of surgery, Indian journal of cancer, Otolaryngology etc;

Professor S.V.S. Deo was invited as an International Teaching faculty to deliver a lecture and organize a surgical oncology during the Annual meeting of the Malaysian Association of Surgeons; elected as a Council member and teaching faculty of "Breast Surgery International" of International Society of Surgery, Switzerland; elected as a Director Education of "Association of Breast Surgeons of India" for North ZONE; appointed as Chair – Breast cancer Clinical Trials for National Cancer Grid collaborative clinical trials network; expert in Dean's committee to approve MD palliative Medicine, DM critical care and DM onco- anesthesia courses at AIIMS; invited as a MCh Surgical oncology examiner by TMH, Mumbai and BHU Varanasi; external expert for selection of MCh Surgical oncology candidates at Tata Memorial Hospital Mumbai; expert for selection of Surgical Oncology faculty at NEIGRIMS, Shillong.

Dr M.D. Ray was awarded best research paper on self designed technique on Ilio Inguinal block dissection (IIBD); recommended for including his name in Limca book of records for operating largest ovarian tumour (17 kg) in Asia ever and invited as guest faculty in Tata Medical Centre, Kolkata.

10.4 Dr Rajendra Prasad Centre for Ophthalmic Sciences

Chief and Professor of Ophthalmology

Y.R. Sharma

Professors

Atul Kumar	Pradeep Sharma	Ramanjit Sihota
Gita Satpathy	J.S. Titiyal	Radhika Tandon
S.K. Khokhar	Shakti Kumar Gupta (Medical Supdt.)	Mahesh Chandra
Dilip R. Shende (Ocular Anesthesia)	Mandeep Singh Bajaj	Raj Pal
	Seema Sen (Ocular Pathology)	Sanjay Sharma (Radio-Diagnosis)
Seema Kashyap (Ocular Pathology)	Namrata Sharma	Tanuj Dada
	Pradeep Venkatesh	Neelam Pushker

Additional Professors

T. Velpandian (Ocular Pharmacology)	Praveen Vashist (Community Ophthalmology)	Jasbir Kaur (Ocular Biochemistry)
Rohit Saxena	Vinay Gupta	Renu Sinha (Ocular Anesthesia)
Tushar Agarwal	M.Vanathi	Rajesh Sinha
Bhavna Chawla	Parijat Chandra	

Assistant Professors

Senjam Suraj Singh	Alok Kumar Ravi	Nabanita Halder
Noopur Gupta	Rachna Meel	Vinod Kumar
Rohan Chawla	Sunil Choudhary	Swati Phuljhene

HIGHLIGHTS

During the last one year, the Centre has attained significant achievements. Prof. (Dr.) Yog Raj Sharma and Prof. (Dr.) Jeewan Singh Titiyal have been honoured with Padma Shri Award from President of India for the year 2015 and 2014, respectively. New surgical training facility in the name of National Surgical Skill Development Centre has been created for learning phacoemulsification, vitrectomy, keratoplasty, etc. in goat's eye. Ophthalmology residents are learning to perfect the technique of ocular microsurgery. FEMTO cataract operation theatre has been constructed and is now fully functional. Recently, the Eye Casualty and its operation theatre have been renovated and it is fully functional now. Various general wards have been renovated with provisioning of state of the art amenities. National Eye Bank and L.P. Aggarwal O.R.A library has been upgraded and modernized. An Extension/Screening OPD on the backside of the casualty of Dr. R.P. Centre has been constructed and is fully functional to decongest the OPD. Computerization in all wards, OT, OPD, Day care and laboratories has been completed. Centralized air-conditioning system is now fully functional in OPD area. The faculty members (Clinical and Basic Sciences) of the Centre were invited for several guest lectures participated in instruction courses and were invited as panelist and Chairs at various national and international events. Dr R.P. Centre was active in clinical care, teaching of residents, trainees and fellows. During this period (2014-2015) also had a lot of research activity and many research papers were presented in national as well as international scientific conferences by the PhD scholars, Residents and Faculty members. Research articles published in peer reviewed indexed journals by the faculty members, residents and research scholars from Dr R.P. Centre for Ophthalmic Sciences have been well recognised by nationally and internationally.

EDUCATION

Postgraduates MD: 35
12 students passed

Paraclinical: BSc (H) Ophthalmology: 36
Total Junior Residents: 111

CME

The faculty of the Centre participated in various scientific forums, delivered lectures including keynote addresses, and presented papers/posters. During the year the centre organized the following Conferences/Seminars/Workshops on:

RPC Update 2015: 10 March 2015

- * Sunil Kumar- Awarded Young Scientist Award (Second)
- * Swati Shukla - Awarded Young Scientist Award (Second)
- * Sandeep Goswami- Awarded Travel Grant by Asia-ARVO
- * Manpreet Kaur- Best free paper in Squint-Neuro-Ophthalmology session DOS Annual Conference 2014

Lectures delivered

Yog Raj Sharma: 1

J.S. Titiyal: 11

Mahesh Chandra: 2

Seema Sen: 1

T. Velpandian: 1

Rohit Saxena: 7

Senjam Suraj Singh: 6

Swati Phuljhene: 1

Atul Kumar: 15

Radhika Tandon: 1

Dilip Shende: 6

Seema Kashyap: 2

Praveen Vashist: 11

M. Vanathi: 7

Vinod Kumar: 1

Pradeep Sharma: 3

Shakti Kumar Gupta: 6

Mandeep Singh Bajaj: 1

Namrata Sharma: 39

Jasbir Kaur: 1

Parijat Chandra: 8

Rohan Chawla: 1

RESEARCH

Funded projects

Ongoing

1. Strengthening of ROP Services in India – Phase -II.
2. A phase III, Multinational, Multicenter, Randomized, Double-Masked, Study Assessing the Safety and Efficacy of Intravitreal Injections of DE-109 (Three Dose) for the Treatment of active, Non-infectious Uveitis of the Posterior Segment of the eye.
3. LUMINOUS: Study to observe the effectiveness and safety of LUCENTIS through individualized patient treatment and associated outcomes.
4. A 12 month, Phase III, randomized, double-masked, multi-center active-controlled study to evaluate the efficacy and safety of two individualized regimens of 0.5 mg ranibizumab vs. verteporfin PDTG in patients with visual impairment due to choroidal neovascularization secondary to pathologic myopia (brilliance).
5. Cholesterol homeostasis in brain cells exposure to LDL variants and its co-relation with endoplasmic reticulum stress.
6. Prevalence of Dry Eye and its subtypes in hospital-based population in North India
7. To determine the influence of pre-operative counseling of cataract patients on IOL choice among patients at a tertiary level government aided eye hospital
8. Epidemiology, pathogenomics and system biology of A. flavus infections in India – an integrative approach
9. A prospective comprehensive study of atypical conjunctivitis occurring in Delhi and development of a multiples PCR assay for rapid diagnosis of viral conjunctivitis
10. Comparison of autologous culture limbal stem cell on amniotic membrane transplant alone in the management of partial limbal stem cell deficiency due to ocular burns
11. Asia Cornea Society Infectious keratitis Study
12. Identification of specific proteins in aqueous humor and tear film of primary open angle glaucoma and primary angle closure glaucoma patients
13. Gene expression profile of human retinoblastoma

14. Differential expression of genes in retinopathy of prematurity
15. Expression profile of genes involved in pathogenesis of diabetic retinopathy
16. Molecular and mutational studies in the uveal melanoma and their correlation with clinic-pathological parameters.
17. Developing quality control parameters and dispensing MK Media for corneal transplant preservation for Indian eye banks
18. Functional importance of Nucleoside transporters in the ocular disposition of their substrates – for targeted ocular drug delivery
19. Development and Preclinical Studies of a Novel Topical Formulation of Isoflavones for the Treatment of postmenopausal dry eye
20. Feasibility Study for Developing the Pharmaceutical and Bio-analytical Methods for the Development of Newer Anticancer Agents for Retinoblastoma
21. Collaborative Studies on Developing newer antimicrobials based on QSPR platform for its projected use in ocular and other infections
22. “Cell Sheet Engineering for Assembling Human Corneal Construct” (M-1286)
23. The development of a potential Biopolymer to serve as an alternative substract of Human Amnion M... for Ex-vivo expl... of Corneal aptitude stem cell
24. Isolation, culture & characterization of Human Corneal endothelial Cell
25. “Clinical trial of oral rabamipide in treatmentof dry eye”
26. Multi-centric Collaborative Study on the impact of Global warming and Ultra Violet Radiation (UVR) exposure on ocular health in India
27. A pilot study on health education intervention for modifiable factors affecting myopia among school children in Delhi
28. Evaluation of tear neuromediators in eyes with chronic glaucoma on long term antiglaucoma therapy
29. Tear Evaluation in ocular GVHD
30. Vision Delhi project on Refractive Error- a community eye care
31. Trachoma Prevalence Survey-9 districts (Annexure A)” under the NPCB National Trachoma Survey In India
32. Trachoma Rapid Assessment (Annexure B) under the NPCB National Trachoma Survey In
33. Multi –centric Collaborative Study on the impact of Global Warming and Ultra Violet Radiation [UVR] exposure on ocular health in India
34. Operational Research project on conducting training sessions for health care professionals
35. National Trachoma Prevalence Survey
36. National Trachoma Rapid Assessment Survey
37. Vision Delhi- A community eye care initiative for refractive error services in urban slums
38. Study on Awareness and health-seeking practices about common blinding eye diseases in urban slums of Delhi”
39. Study of sense of coherence and spectacle compliance among secondary school in Delhi,
40. CBM_RPC Disability inclusive eye health programme
41. Clinical implication of Epithelial Mesenchymal Transition Markers in eyelid sebaceous gland carcinoma
42. Role of HMG proteins in intraocular malignant childhood tumors
43. Ocular adnexal lymphomas and Chlamydia: An immunophenotypic and molecular study
44. Molecular study of mitochondrial DNA in intraocular malignant childhood tumours

Completed

1. A 3-Year, Phase-3, Multicenter, Masked Randomized, Sham Controlled Trial to assess the Safety and Efficacy of 700 µg Dexamethasone Posterior Segment Drug Delivery System (DEX PS DDS) Applicator System in the Treatment of Patients with Diabetic Macular Edema.

2. A 12 month, phase III, randomized, Double masked multicentre, active controlled study to evaluate the efficacy and safety of two different dosing regimens of 0.5 mg ranibizumab vs. verteporfin PDT in patients with visual impairment due to choroidal neovascularisation secondary to pathological myopia.
3. Comparative randomized evaluation of Ozurdex implant vs Ozurdex implant plus Laser in patients of BRVO with Macular Edema.
4. A Multicenter, Patient – Masked, Safety Extension Study to Evaluate the Biodegradation of the Brimonidine Tartrate Posterior Segment Drug Delivery System.
5. Genotype determination of *Acanthamoeba* spp from amebic keratitis and CNS infections and evaluation of PCR assay vis a vis conventional methods for rapid diagnosis
6. Study to identify the genetic basis underlying Stevens-Johnson syndrome (SJS)
7. Molecular genetic analysis of Posterior polar cataract families
8. Evaluation of the possible modalities to enhance the ocular kinetics of an anti cancer agent in rabbits for its utilization in the treatment of retinoblastoma
9. Situational analysis, Evaluation of existing programmes for screening and Treatment for Diabetic Retinopathy
10. National Trachoma Survey in Andaman & Nicobar Island
11. Innovation fund project on developing a cost-effective model for community based screening of Diabetic Retinopathy in urban slums of Delhi
12. Sentinel Surveillance Unit Project, Delhi
13. National Surveillance Unit
14. Cost-effective model for community based screening of Diabetic Retinopathy in urban slums of Delhi
15. Role of Micro RNA-200 Family in Ocular Malignancies

Departmental projects

Ongoing

1. Morphometric Analysis of Disc in Branch Retinal Vein Occlusion Eyes using Confocal Scanning Laser
2. Clinical profile and outcomes of endophthalmitis at a Tertiary Care Centre, 2014.
3. Evaluation of Intraocular penetration of Meropenem and Erapenem after administration in non-inflamed eyes.
4. A Randomized controlled trial to evaluate the role of postoperative strict prone positioning for one day versus three days in anatomical closure of Idiopathic full thickness macular hole: A preliminary Study.
5. Assessment of systemic vascular autonomic tone, structural and functional outcome in idiopathic central serous chorio-retinopathy.
6. Microbiological and clinical profile of Metastatic Endophthalmitis
7. Evaluation of autonomic tone, structural and functional outcome in CSR patients
8. Comparison of PASCAL PRP with conventional PRP in PDR patients with respect to changes in RNFL and ONH using optical coherence tomography (ongoing).
9. A randomized controlled trial to evaluate the role of postoperative strict prone positioning for one day versus three days in anatomical closure of idiopathic full thickness macular hole (ongoing).
10. To evaluate the safety and efficacy of bone marrow derived stem cells in the management of patients with ischemic CVO
11. To study clinical and etiological profile of patients with retinal vasculitis using wide field fluorescein angiography
12. To study SD-OCT patterns of diabetic macular edema and correlate with systemic and ocular risk factors
13. Determine changes in choroidal layer (on EDI-OCT) following vitreoretinal surgery in patients with proliferative diabetic retinopathy
14. Determine optic nerve head and nerve fibre layer changes (on SD-OCT) following panretinal photocoagulation in patients with proliferative diabetic retinopathy

15. Anterior Segment changes with anterior segment OCT in cases which are undergoing vitreo-retinal procedure. Optic nerve changes and nerve fiber layer analysis after pascal laser in Diabetic Retinopathy.
16. Clinical and microbial profile of endogenous endophthalmitis at Tertiary Care Eye Centre. Autonomic activity in CSR patients
17. Ganglionic layer thickness after Anti-VEGF and intra-vitreous steroid
18. Laser after angiography in cases of aggressive ROP
19. Choroidal Vascular changes pre and post vitrectomy in patients with retinal Pathologies
20. Ganglion Cell Layer Estimation before and after Avastin Injection in cases of Retinal disease
21. Multifocal ERG before and after foreign body removal in ocular trauma patients
22. Comparative Evaluation of Ranibizumab V/s. Dexamethasone Implant with and without Laser in Macular edema following BRVO, 2014.
23. To study the outcomes of minimally invasive vitrectomy surgery in Diabetic Vitrectomacular traction, 2014.
24. Understanding the Transporter Functions in Blood Ocular Barriers during ocular inflammation in the Experimental Model of Uveitis
25. Use of Metagenomics in Microbiology of culture negative infections
26. Clinical and Microbiological profile of patients with endogenous endophthalmitis at a Tertiary Care Centre
27. To study the effect of intravitreal injections of Anti-VegF Agents and Steroids on Foveal Ganglion Cell Layer and Vitreo-Retinal interface
28. To evaluate the changes of retinal nerve fibre layer and optic nerve head after PASCAL panretinal photocoagulation using Optical coherence tomography
29. Evaluation of Autologous stem cells for management of Dry AMD
30. Strengthening of Low Vision and Rehabilitation Services in Dr. RPC, AIIMS New Delhi. (Project funding by Christoffel Blinden Mission)
31. Comparison of Ultra Wide field FA (UWFFA) with conv. FA guided Pascal laser treatment in DR
32. Role of fundus fluorescein Angiography in the management of Aggressive posterior Retinopathy of Prematurity
33. Retinopathy of prematurity profile in Inborn and Outborn babies in a tertiary Hospital
34. Anatomical and visual Outcome of posteriorly dislocated lens after phacofragmentation
35. Evaluation of the Role of Retinal Renin Angiotensin System (RAS) in the Animal Model of Retinopathy of Prematurity (ROP)
36. Preoperative and Postoperative Assessment of change in Multifocal Electroretinogram in Patients with Iron Intracocular Foreign Body
37. Evaluation of Intravitreal Bevacizumab as Monotherapy and in Combination with Macular Grid Laser Photocoagulation in Diffuse Diabetic Macular Edema
38. Comparison of Pascal with Conventional Laser with Respect to Changes in Retinal Nerve Fibre Layer and Optic Nerve Head in Patients Undergoing Pan Retinal Photocoagulation for Proliferative Diabetic Retinopathy Using Optical Coherence Tomography
39. Anatomical and Visual Outcome of Posteriorly Dislocated Crystalline Lens. After Phacofragmentation.
40. To Determine the Patterns of Ocular Trauma Based on Ocular Trauma Scoring (OTS).
41. To Study the Comparative Role of UWFA Guided Peripheral Laser Along with Intravitreal Ranibizumab with RBZ only in BRVO with Macular Edema
42. Study of Morphological and Vascular Changes of Choroid in Diabetic Macular Oedema Using SD-OCT.
43. Prospective randomized interventional trial comparing conventional fluorescein angiography with ultra wide field fluorescein angiography in pattern scan laser guided treatment of diabetic retinopathy.
44. Patterns of ocular trauma based on ocular trauma score – a comprehensive study
45. Comparative Evaluation of Low Macular Index Macular Holes - a controlled perspective study.

46. Studies on characterization of types of *Acanthamoeba* causing human infections by using genotyping and proteomics.
47. Use of advanced genomics in diagnosis of culture negative infections (septeacaemia and endophthalmitis.).
48. Antifungal sensitivity testing in corneal ulcer patients for Voriconazole and Natamycine
49. Gene expression profiling in retinopathy of prematurity
50. Genomic alterations in juvenile open angle glaucoma
51. Gene expression profile of human uveal melanoma
52. Genetic polymorphisms of cytochrome P450 and glutathione S-transferase and the risk of primary open angle glaucoma and primary angle closure glaucoma in North Indian population.
53. Vascular endothelial growth factor and insulin-like growth factor-1 levels in the preterm infants: correlation with retinopathy of prematurity
54. DNA repair proficiency in human retinoblastoma: study of vitamin D and its effects.
55. Evaluation of the role of systemic factors in Ischemic mono neuropathy
56. Evaluation of the role Partial VRT in VI nerve palsy in Strabismus
57. Evaluation of the role of Videogames as active Vision therapy in Amblyopia therapy
58. Evaluation of distance and near stereopsis in acquired cases of ametropia (Myopes, Hypermetropes and young unilateral aphakes
59. Responsiveness of HRQOL questionnaires in Strabismus.
60. Evaluation of Nishida procedure for transposition in Lateral rectus palsy.
61. A Comparative study of clinical course and treatment outcome of orbital cellulitis in pediatric and adult patients
62. Clinical and genetic analyses of anophthalmos, microphthalmos and coloboma
63. Modulation of organic cationic transporters for the intraocular penetration of drugs.
64. Development of topical estrogen or androgen receptor modulator for postmenopausal dry eye using Computer Aided Drug Design.
65. Evaluation of iontophoretic method for the trans-scleral delivery of anti-cancer agents in experimental animal models (Funded by ICMR).
66. Development of novel method for the microwave assisted synthesis of A2E and LC-MS/MS method for its quantification from cadaveric eyes.
67. To study the anticancer effects of newer platinum compounds in cancer cell lines
68. Evaluating the efficacy of cholesterol tethered anti-cancer drug delivery on retinoblastoma.
69. Topical isoflavones in sex steroid deficient dry eye models: Role in Harderian gland secretions.
70. Understanding the functional importance of nucleoside transporters across blood ocular barriers.
71. To evaluate retinal nerve fibre layer and ganglion cell layer changes on OCT in cases of multiple sclerosis and optic neuritis.
72. Evaluation of risk factors for non arteritic anterior ischemic optic neuropathy in Indian population
73. Correlation of sensory status and motor control in case of Intermittant Divergent Squint
74. Evaluation of Boston keratoprosthesis with Titanium backplate
75. Evaluation of Methods for donor corneal decontamination during In-situ retrieval in hospital mortuaries
76. Conjunctival Autofluorescence as a marker of ultraviolet radiation exposure in pterygium.
77. Epidemiology, Risk Factors and clinical profile of Traumatic optic Neuropathy
78. Cost-Effectiveness analysis of descemet's stripping automated endothelial keratoplasty versus penetrating keratoplasty in patients with endothelial dysfunction

79. Adapting, Updating and Validating a Modern Version of the National Eye Institute Visual Function Questionnaire (VFQ-25) as a Tool to Analyze Quality of Life in Patients undergoing Keratoplasty in India:
80. Assessment of Magnitude and Progression of Myopia Among Indian School Going Children
81. In-vitro studies to explore strategies for extended utilization of donor corneal tissues by harnessing their full clinical potential
82. A comparative Study of Knowledge and Attitude Regarding Tissues and Organ Donation Between General population and Relatives of Transplant Patients in New Delhi
83. Study on awareness and health seeking practices about common eye conditions in urban slums of Delhi
84. Molecular analysis of mitochondrial genes associated with tumorigenesis in Retinoblastoma
85. Epithelial- Mesenchymal Transition (EMT) in Sebaceous Carcinoma of the Eyelid – An Immunohistochemical and Molecular Study
86. Molecular Characterization of NF- κ B pathway in Uveal Melanoma

Completed

1. To study fundus autofluorescence patterns in patients with age related macular degeneration
2. To study safety and efficacy of pulse immunotherapy in vision threatening, non-infective posterior uveitis
3. To determine the prevalence of uveitis in children with juvenile rheumatoid arthritis
4. To evaluate the results of investigations for tuberculosis in patients with serpiginous choroidopathy
5. To determine causes and anatomical-visual outcomes of vitreoretinal surgery in pediatric retinal detachment
6. Assessment of systemic vascular tone, structural and functional outcome in central serous chorioretinopathy
7. Comparative Evaluation of 23 Gauge and 25 Gauge MIVS in the management of Rhegmatogenous Retinal Detachment
8. Evaluation of Cultivated Mucous Membrane in Reconstruction of Anophthalmic Contracted Socket
9. To study the effect of Intravitreal Injection of Anti – VEGF Agents and Steroid on Foveal Ganglion Cell Layers and Vitreoretinal Interfac.
10. Comparison between Silicon & Porous Polyethylene Orbital Spherical Implant in Patient Undergoing Enucleation.
11. Efficacy of confluent laser techniques (large spot vs. standard spot) in the treatment of retinopathy of prematurity – a randomized trial.
12. Morphometric evaluation of the disc in BRVO eyes using confocal scanning laser ophthalmoscope
13. Comparative Evaluation of Ranibizumab Vs. Dexametasone Implant in patient in BRVO with Macular Oedema.
14. Clinical profile and management outcomes of endophthalmitis at a tertiary care center
15. Outcomes of minimally invasive vitreous surgery in diabetic vitreomacular traction
16. Comparative Evaluation of 23 Gauge and 25 Gauge MIVS in the management of rhegmatogenous retinal detachment
17. Development of small interfering RNAs (siRNAs) against Coxsackie virus A24 causing eye infections
18. Impact of monthly disposable daily wear silicone hydrogel contact lenses on microbial colonization on ocular surface, contact lens and its accessories
19. Evaluation of methods for donor corneal decontamination during *in-situ* corneal retrieval in hospital mortuaries
20. Evaluation of corneal changes in trauma patients on ventilatory support
21. Microbiology of endogenous endophthalmitis.
22. Silicone sling surgery for congenital ptosis: Tarsal technique vs. suture fixation.
23. Outcome of revision external DCR using mitomycin C, with or without intubation in failed primary DCR.
24. To evaluate the structural and functional changes in retina in cases of Parkinson's disease

25. Evaluation of structural and functional changes over time in anisometropic amblyopes before and during occlusion therapy using MRI and diffusion tensor imaging
26. Community-based Epidemiological Study on Corneal Opacities
27. Community based epidemiological study on corneal opacities
28. Role of Stratifin in ocular squamous cell neoplasia and it's correlation with other tumour suppressors

Collaborative projects

Ongoing

1. Epidemiology, pathogenomics and system biology of A.flavus infections in India – an integrative approach
2. A Comparative study of clinical course and treatment outcome of orbital cellulitis in pediatric and adult patients
3. Evaluation of the expression of transporters in an experimental model of diabetes
4. Virtual screening of Flavanoid library to target PPAR- α and its evaluation in the experimental model of diabetes
5. A prospective study of quality of life and correlation of blood levels of tacrolimus to graft function and adverse effect of tacrolimus in post renal transplant patients-
6. Spectroscopic characterization and pharmacological evaluation of select ingredients of anti-cancer poly herbal formulation-
7. Quantification of plasma antitubercular drug levels in pediatric population
8. Development of the method for the quantification of Neutotransmitters from brain microdialysate in rats
9. Quantification of A2E from the cadaveric eyes
10. Dr. Rohit- Neurocognitive changes associated with perception, spatial orientation and co-ordination in visually challenged subjects using functional Magnetic Resonance Imaging.
11. Growth and neuro-cognitive outcomes of babies at AIIMS
12. Multi –centric Collaborative Study on the impact of Global Warming and Ultra Violet Radiation [UVR] exposure on ocular health in India.
13. Evaluation of clinical and histopath factors associated with success of MMC augmented trabeculectomy among primary glaucomas in India
14. Evaluation of role of cultivated oral mucosal epithelial cells in patients with bilateral acute ocular burns as compared to amniotic membrane transplantation
15. Analysis of the expression of mucins and angiogenesis markers in human oral mucosal epithelial cells (OMEC) on using mycophenolate mofetil (MMF) and bevacizumab (BVCZ) in vitro
16. Clinical significance of Sirtuin 1 and FOXO 3 in intraocular and orbital retinoblastoma

Completed

1. Outcome of revision external DCR using mitomycin C, with or without intubation in failed primary DCR.
2. Dr. Rohit- A randomised comparison of lidocaine 2% gel and proparacaine 0.5% eye drops in paediatric squint surgery.
3. Dr. Rohit- Effect of IJV ligation during comprehensive neck dissection on intracranial pressure
4. Adverse effects of amantadine in patients of parkinson's disease - a cross sectional study
5. Tear protein evaluation in ocular GVHD
6. Culture of Limbal stem cells for ocular surface reconstruction in stem cell deficiency diseases

PUBLICATIONS

Journals: 126

Abstracts: 5

Chapters in Books: 7

Books: 2

PATIENT CARE

	New cases	Old cases	Total	
1.	General O.P.D.	136451	92520	228971
2.	Emergency	9745	-	9745
	Total Cases	146196	92520	238716
SPECIALITY CLINICS				
1.	Cornea Clinic	5796	11894	17690
2.	Lens Clinic	766	1552	2318
3.	Uvea Clinic	1053	3861	4914
4.	Contact Lens Clinic	1088	2556	3644
5.	Glaucoma Clinic	3235	7569	10804
6.	Ophthalmoplasty Clinic	3413	2175	5588
7.	Paediatric Ophthalmology Clinic	280	65	345
8.	Retina Clinic	3193	5009	8202
9.	Neuro-Ophthalmology Clinic	2054	1882	3936
10.	Vitreoretinal Clinic	2524	1717	4241
11.	Retinoblastoma Clinic	345	727	1072
12.	R.O.P.	470	715	1185
13.	a) Orthoptic Clinic	1848	16960	18808
	b) Squint Clinic	5098	15307	20405
14.	Refraction	-	33079	33079
	Total Cases	31163	105068	136231
	Grand Total of Cases	177359	197588	374947

	INDOOR	No. of Cases
1.	General Admissions	16313
2.	Casualty Admissions	2965
3.	Private Admissions	1063
4.	Short Admissions	8299
5.	Day Care Admissions	9693
	Total	38333
OPERATIONS		
1.	Major	18243
2.	Day Care	9693
	Total Major	27936
3.	Minor	11038
	Grand Total	38974*
	Death	Three

YEARLY OTHER FIGURES		
1.	Average Bed Occupancy Ratio	78%
2.	Average length of stay	9.0 day
3.	Average OPD Attendance per working day	1280
4.	Average No. of Indoor Admission per day	105
5.	Average No. of Surgeries per day	107

Investigative Laboratories			
Post Seg.	2855	YAG	2545
OCT	17495	FFA	3139
CP	1622	LI	4750
VKG	1216	IOL	2505
Axial Length	1475	Refraction	1248
LVA	569	NCT	1596
SM	444	ASOCT	1086
CP	3702	UBM	81
AR	2109	i-TRACE	676
Suture Rem	817	PK-old	1313
EB clinic-new	5810	EB clinic-old	1214
Contact lens new	1064	Contact lens old	2688
Video Slit lamp	49	Manual keratometry	455
Autolensometry	785	Schirmer's test	1966
BUT	926	Autokeratometry	770
AL	10899	KM	10652
AR	1535	IOLMaster	9469

Ocular Microbiology	
Bacterial culture & sensitivity	11138
Fungal culture	3773
Specimens processed for cytology	2944
Specimens processed for viral Ag detection & PCR	48
Specimens processed for Chlamydia Ag detection	443
Culture for acanthamoeba	33
Specimens processed for conjunctivitis	16
Specimens processed for microsporidia	8
Specimens processed for microbacteria	19
Grand Total	18422

Ocular Biochemistry	
Total number of samples	9010
(apart from research)	
Indoor	7051
Outdoor	1959
Ocular Pathology	
i) - Blood: Total Leucocyte Count (TLC),	
- Differential Leucocyte Count (DLC)	
- Peripheral Blood Smear (PBS)	
- Erthrocyte Sedimentation Rate (ESR)	
- Bleeding Time (BT) / Clotting Time (CT)	
Total:	52,267
ii) - Urine	09,469
- Histopathology, Cytopathology & Research	26,037
Ocular Pharmacology and Pharmacy	
Free drugs (vials) supplied through ocular pharmacy including media	132626

Community Ophthalmology Eye Care Services in Slums	Outputs
Primary Eye care Clinics	20
Attendees at PEC Counters' in Slums Cluster	61980
Refraction carried out in PEC Centres in slums Cluster	26807
Spectacles prescribed in Slums	21037
Patients referred to R.P. Centre	6855
Primary Eye Care Volunteer training events	
Volunteers Training Programmes organized	59
Volunteers Trained	723
Eye Health Education Events	
Eye Health Education Event conducted	189
Participants in the Health Education events	3863
Reach-in-Programme for cataract surgery in Rural and remote areas	
Adult screening camps organized	15
People examined	2616
Patients referred at R.P. Centre	442
School Eye Screening Programme	
School covered under SES Programme	26
Teachers trained under School Vision Screening programme	38
Numbers of Children screened	20773
Children prescribed spectacles	1523
Children issued Spectacles	674

Diabetic Retinopathy Screening Camps	
Total number of DR screening camps organized	222
Diabetic patients screened in camps	4964
Total DR Patients identified and referred to R.P. Centre	649
Total patients reported at R.P. Centre for further management	590
Patient Reported for treatment at Dr R.P. Centre under Community Ophthalmology	
Total Patient Reported under community ophthalmology	3289
Total Patient Operated for cataract surgeries under community ophthalmology	1884
Follow-up camps organized	42
Patients examined in Follow-up camps	1186
NPCB-National Trachoma Survey	
Numbers of district covered for Trachoma survey	11
Numbers of Adults Examined	41744
Numbers of Adults identified with Trichiasis	84
Numbers of children Examined	16785
Numbers of children identified for active trachoma infection	132

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Yog Raj Sharma awarded Padma Shri by the President of India for distinguished Service in the field of Medicine, 2015; Appointed Chief, Dr. R.P. Centre for Ophthalmic Sciences, AIIMS, New Delhi from 24 March, 2014; Advisor (Ophthalmology), Ministry of Health & Family Welfare, Government of India, 2014; Director, World Health Organization Centre, New Delhi, from March, 2014; President, Ophthalmic Research Association, Dr R.P. Centre for Ophthalmic Sciences AIIMS, New Delhi, 2014; Chairman: Definition of Low Vision Aid Committee set up by Ministry of Social Justice & Empowerment, Government of India, 2014; Co-Chairman: National Task Force on Prevention of Blindness from Retinopathy of Prematurity, 2014; Chairman: National Task Force on Prevention and Control of Diabetic Retinopathy, 2014; Co-Program Director: Meeting of the National Task Force on Prevention of Blindness from Retinopathy of Prematurity, Child Health Division, Ministry of Health & Family Welfare, Government of India, 8–9 October 2014; Co-Chairman: National Task Force on Prevention of Blindness from Retinopathy of Prematurity, Child Health Division, Ministry of Health & Family Welfare, Government of India, 2014; Co-Chairman: 2nd meeting of the National Diabetic Retinopathy Task Force at Hyderabad on 21st November, 2014; World Health Organization (WHO) Regional Meeting to operationalize Action Plan (2014-15) for the prevention of avoidable blindness and visual impairment in SEA Region Hyderabad w.e.f. 18th – 20th November, 2014; Expert Member: Faculty interview for faculty for ESIC, 4th April, 2014; Scientific Reviewer: Journal of Clinical Ophthalmology and Research, 2014; Referee appointed by the Indian Council of Medical Research to select a candidate for the “Shakuntala Amir Chand Prize” for the year 2012, August, 2014; Member: Scientific Advisory Committee for Bhopal Memorial Hospital & Research Centre, 2014; Book Reviewer: “Cell Based Therapy for Retinal Detachment Diseases” Indian Journal of Medical Research, ICMR, 2014; Member: 44th VISION 2020 Board meeting held on 10th October, 2014; Examiner: FAICO (RETINA) of the All India Ophthalmological Society, held at Dr. R.P. Centre, AIIMS, New Delhi on November, 2014; Examiner: FAICO (UVEA) of the All India Ophthalmological Society, held at Dr. R.P. Centre, AIIMS, New Delhi on November, 2014; Member of Doctoral Committee in respect of Dr. Anusuya Bhattacharya, Ph.D. Student in the Department of community Ophthalmology at Dr. R.P. Centre, AIIMS, New Delhi, 13th December, 2014; Member of Doctoral Committee in respect of Ms. Deepanshi Mishra, Ph.D. Student in the Department of Ocular Microbiology at Dr. R.P. Centre, AIIMS, New Delhi, 23rd December, 2014; Member: Vigilance Inquiry, November, 2011-14; Chairman: Stores management, 2011-14; Chairman: Computer Facility, Audio Visual RPC & Website telemedicine, Nov 2011-2014; Chairman: Store Management committee, November, 2011-14; Officer I/c: Retina Lab & Multifocal ERG, November, 2011-14; Member: O.T. Services Committee, November, 2011-14; Member: Vision Documents-

AIIMS, November, 2011-14; Member: Budget & Account, Nov 2011-2014; Member: Ethics committee-AIIMS, 2011-14; Member: Committee to review and frame the Rules & Regulation under the AIIMS Act 1956, April, 2014; Editor: *Advances in Ophthalmology and Visual Sciences*, 2014; Scientific reviewer – Ophthalmology (AAO), since 2006; *American Journal of Ophthalmology* since 2007; *Indian Journal of Ophthalmology* since 1990; Expert – Department of Bio-Technology, Government of India (Biotech Consortium India Limited (BCIL), Management Agency (SMA) of the Scheme); Scientific Reviewer: Department of Biotechnology, Government of India, 2013; Expert: Department of biotechnology (DBT), Government of India (Biotech Consortium India Limited (BCIL) is the Management Agency (SMA) of the DBT scheme.) 2013; Scientific Reviewer: Hindawi Publishing Corp. 2009; Scientific reviewer: *Sanamed Journal*, 2013; Member: Scientific committee of the Asia-ARVO, 2013; Scientific reviewer: *Indian Journal of medical research*-2013; Advisory Board: *DOS Times*, 2013; Editorial Advisory Member: *Delhi journal of Ophthalmology*, 2013; Book Reviewer: Wiley Blackwell, India, 2013.

Professor Atul Kumar was awarded Dr SN Mitter Oration at Annual DOS Meeting 11–13 April 2014; Appointed on NAMS Advisory Panel as Expert Member Ophthalmology, 2014; Appointed reviewer for *American Journal of Ophthalmology* March 2015; Awarded Dr P.K. Jain Oration for talk on “Diabetic Macular Edema” 66th DOS Annual Conference 10–12 April 2015; Awarded Dr. Krishna Sohan Singh Trophy for Best Clinical Talk in Monthly Clinical Meeting, 66th DOS Annual Conference 10–12 April 2015.

Professor J.S. Titiyal was conferred Padma Shri for outstanding contribution in the field of Medicine (Ophthalmology) by President of India 2014, New Delhi; Guest of Honour, inauguration of Annual State Uttarakhand State Ophthalmological Society Conference (UKSOS). Oct. 2014, Mussoorie, (Uttarakhand); Special Medical Camp to attend serious and chronic patients of Ladhak (J&K). Aug 2014; Chief Guest, Kanpur ophthalmic Society Annual Meeting, Aug 2014; Guest of Honor for Eye camp at Munsiyari, Uttarkhand. May-June, 2014; Dr G.D. Pandey Memorial Oration, IMA, Haldwani (Uttarakhand) June 2014.

Professor Pradeep Sharma received the Dr Gopinath Medal Award at Kochi Kerala in August 2014.

Professor R. Sihota was Reviewer; *Indian Journal of Ophthalmology*, *Ophthalmic Epidemiology*, *Archives of Ophthalmology*, *Ophthalmic and Physiological optics*, *British Journal of Ophthalmology*, *Eye*, *Acta Ophthalmologica*.

Professor Radhika Tandon achieved more than 100 DCRS credit, Annual Meeting of Delhi Ophthalmological Society in April, 2014 at New Delhi; Received ‘Third Prize’ for AIIMS Excellence in Research “Surface-Modified Electrospun Poly Scaffold with improved optical transparency and bioactivity for damaged ocular surface reconstruction” under the category Basic Sciences, AIIMS Excellent Research Award 2014. September 24, 2014.

Professor Shakti Kumar Gupta was Awarded “Distinguished Jury” on Doctors’ Day, 1 July 2014, by the Indian Medical Association; Awarded the Chief Minister’s Gold Medal for meritorious public service by Hon’ble Governor of Jammu and Kashmir, Shri N.N. Vohra for the year 2014 on 24 July 2014 at the Investiture Ceremony for Awards from 23 to 24 July 2014; Visited Srinagar as part of the Central Team constituted by Ministry of Health and Family Welfare, Govt of India, for assessment of damage to infrastructure at Tertiary care Medical Institutions in Srinagar affected by floods on 22 and 23 September 2014; Visited Srinagar as part of the central team constituted by the PMO and NDMA to assess the requirements on operationalising the tertiary care facilities of the various hospitals in relation to relief and rehabilitation of victims of floods in J&K from 28 to 30 October 2014; Nominated as Honorary Consultant to the Department of Health and Family Welfare, Government of Tripura; Awarded for Outstanding Contribution to the Indian Healthcare Industry by ITP Publishing and Healthcare Radius; Attended the Project Monitoring Committee meeting for Emergency Trauma Centre at Kathmandu, Nepal from November 03 to 005, 2014; Visited Kalyani, West Bengal regarding inspection of two sites for establishing AIIMS from 11 to 13 February, 2015; Visited Vadodara and Rajkot districts regarding inspection of site for establishing AIIMS from 21 to 23 January 2015; Member of the Advisory Board of “PGDM & PGP Healthcare Management Programs” conducted by Prin. L. N. Welingker Institute of Management Development and Research (WeSchool), Mumbai; Appointed co-chairman of the Haemovigilance Advisory Committee (HAC) constituted by the Ministry of Health and Family Welfare, Govt of India to increase the reach of Haemovigilance Programme of India; Member of the Expert Advisory Committee for the proposed five programmes—Pharmacovigilance, Hemovigilance, Biovigilance, Materiovigilance and Antimicrobial Resistance to be implemented under the Pharmacovigilance Programme of India (PvPI) during the 12th Five-Year Plan (2012–17), DGHS, CDSCO, Ministry of Health and Family Welfare, Govt of India.

Professor Neelam Pushker received AIIMS Excellence Certificate, 2014 for a randomized control trial completed as Chief Guide. She has completed a study (as Chief Guide) on the role of voriconazole in orbital fungal infections which has not been studied earlier in orbital fungal disease. This paper got the Best Paper Award (as co-author) in the Joint meeting of Asia Pacific Society of Ophthalmic Plastic and Reconstructive Surgery and Oculoplastics Association of India (APSOPRS-OPAI). She also got selected for Asia-Pacific Academy of Ophthalmology – Achievement Award, 2015. She was appointed as External Examiner for MBBS Ophthalmology Examination held at MAMC, N. Delhi. She has published an innovative technique of eyelid reconstruction in Pubmed Indexed journal.

Dr Praveen Vashist was appointed member of the task force committee for ROP by MOH&FW and attended the task force meeting on 9–10 October 2014 at AIIMS; awarded for AIIMS Excellence Research Award 2014 (Second Prize of Rs. 25,000) for the paper “Rapid Assessment of Trachoma in Underserved population of Car-Nicobar Island, India” was presented in the ceremony of AIIMS Annual Day on 24 September 2014; awarded “Association of Community Ophthalmologists of India (ACOIN) GOLD MEDAL” and felicitated in the 5th Annual Conference of ACOIN & International Assembly of Community Ophthalmologists in Kolkata, West Bengal, India on 1 November, 2014; awarded for COSI award for his exemplary individual contribution in the field of Community Eye Care Services at Venu Eye Research Institute on 22 November 2014; appointed as chairperson for Academic and Research Committee Association of community ophthalmologist in India ACOIN for the period 2014-16; Technical advisor for the Vision Science Course for the CBSE Vocational Cell- Committee; appointed as member of AIOS Diabetic Retinopathy awareness Committee; appointed as executive member of ISGEO Board for the term 2014-16; invited for panel discussion on Blindness & Eye Donation under the live telecast programme at Doordarshan National TV channel in the programme Swasth Bharat on August 26, 2014

Dr T. Velpandian was awarded Dr Vinod Kumar Bhargava award in Drug Discovery/Clinical Pharmacology by National Academy of Medical Sciences for the year 2014; awarded AIIMS Excellence Research Award, 2014 in recognition of his outstanding publication under the category of Basic Research; Editor (Pharmacology) for the Indian journal of Physiology & Pharmacology (Indexed journal of APPICON).

Dr Jasbir Kaur was Reviewer: International Journal of Ophthalmology, Indian Journal of Medical Research; Member, Expert Board, International Journal of Ophthalmology 2014-15; Member, Institutional Ethical Committee, ACRI, New Delhi, 2014; Organizer, 11th Programme Advisory Committee meeting in Health Sciences, SERB, DST, Govt. of India at Dr. R.P. Centre, AIIMS, New Delhi, 7-9 August 2014.

Dr Rohit Saxena was awarded ACOIN (Association of Community Ophthalmologists of India) Appreciation Plaque 2014. Awarded AIIMS Excellence Award 2014 for the paper “A randomized comparison of lidocaine 2% gel and proparacaine 0.5% eye drops in paediatric squint surgery” (co-author). Awarded Best free paper in Squint-Neuro-Ophthalmology session DOS Annual Conference 2015 for the paper “Comparative evaluation of oral steroids in cases of acute NAION”. Awarded Best free paper in Squint-Neuro-Ophthalmology session DOS Annual Conference 2014 for the paper “Correlation Between Structural and Functional Retinal Changes in Parkinson Disease.” Member, Project Review Committee constituted by Department of Science and Technology for the projects in Ophthalmology. Member Subject Expert Committee (SEC) to advise Drugs Controller General (India) in matters related to approval of clinical trials, new drugs and new medical devices. Member Editorial Advisory Board for Indian Journal for Medical Specialities, Delhi Journal of Ophthalmology, DDF Bulletin

Dr M. Vanathi was Editor, Delhi Journal of Ophthalmology.

Dr Parijat Chandra was External Examiner-Thesis Reviewer. MS (Ophthalmology). PGIMER, Chandigarh. March 2015; Reviewer: Journal of Postgraduate Medicine; Indian Journal of Ophthalmology; Eye; Journal of Clinical Ophthalmology and Research; Indian Journal of Pediatrics; International Journal of Ophthalmology; Editorial Board Member – Delhi Journal of Ophthalmology; Moderator - Session on Retinopathy of Prematurity. Annual conference of Delhi Ophthalmological Society, Delhi (13 Apr 2014); Chairman, Free Paper 9 Retina Session. Annual conference of Delhi Ophthalmological Society, Delhi. (13 Apr 2014).

Dr Senjam Suraj Singh was nominated as a member of ICMR screening committee for Scientists.

Dr Noopur Gupta was awarded PhD degree based on work; Appointed as chairperson Association of community ophthalmologist in India ACOIN Academic and Research Committee; Awarded E.T. Selvam award for the **Best Poster** entitled “Community based epidemiological study on corneal diseases in North India”, 72nd Annual Conference of AIOS from 6th to 9th February, 2014 at Agra, India; Sh. Kalu Ram Memorial Award for the **Best**

Paper on community based research titled, “Prevalence of trachoma in Car-Nicobar Island after mass drug treatment with Azithromycin”, 41st National Conference of Indian Association of Preventive and Social Medicine from 6 to 9 February 2014 at Agartala, India; AIIMS Excellence Research Award 2014 (Second Prize) for the paper “Rapid Assessment of Trachoma in Underserved population of Car-Nicobar Island, India” presented in the ceremony of AIIMS Annual Day on 24 September 2014.

VISITING SCIENTISTS

1. Dr Gyan Prakash, Director International Programme NEI, NIH visited the Dr. RPC on 04th October 2014.
2. Dr James Chodosh, MD, PhD, Professor at Harvard Medical School USA visited Dr R.P. Centre on 2 February 2015 to continue discussions on academic and Research Collaborations.
3. Mr Imran Khan, Chief Programme Development Advisor & Ms Thoko Pooley, Director of Institutional Funding, Sightsavers visited at Community Ophthalmology on 9 May 2014.
4. Ms Junith, Director of strategic communication-Sightsavers UK, visited to Primary Eye Care Center at Trilokpuri on 29 November 2014.
5. Kevin Hassey CEO Visionspring New York visited department on 16 March 2015.

10.5 Jai Prakash Narayan Apex Trauma Centre

Chief

M.C. Misra

Additional Medical Superintendent

Sanjeev K. Bhoi

Additional Professors

Emergency Medicine

Sanjeev Bhoi

Neurosurgery

Deepak Agrawal

Deepak K Gupta

Sumit Sinha

Forensic Medicine

Sanjeev Lalwani

Adarsh Kumar

Orthopaedics

Kamran Farooque

Vijay Sharma

Buddhadev Chowdhry

Vivek Trikha

Anaesthesiology

Babita Gupta

Chhavi Sawhney

Laboratory Medicine

Arulselvi S

Purva Mathur

Radiodiagnosis

Shivanand G.

Surgery

Sushma Sagar, Atin Kumar, Subodh Kumar,

Amit Gupta, Maneesh Singhal, Biplab Mishra

Associate Professors

Neurosurgery

GD Satyarthee

Assistant Professors

Cardiology

Neeraj Parakh

Neuroanaesthesia

Keshav Goyal, Navdeep Sokhal

Ashish Bindra, Gyanendra Pal Singh

Neeraj Kumar

Paediatric Surgery

Shilpa Sharma

Critical Care

Kapil Dev Soni

Richa Garg

Neurosurgery

Pankaj K Singh

Anaesthesiology

Naveen Yadav

Nephrology

Soumita Bagchi

Obstetrics and Gynaecology

Garima Kachhawa

Urology

Ashish Saini

HIGHLIGHTS

Jai Prakash Narayan Apex Trauma Centre, AIIMS, continued to be leader in providing quality patient care services, research, teaching and training. All the faculty and staff members are working actively in providing quality care to the victims of trauma. A total of 62,744 patients visited casualty during the year. Among these 5,290 patients were admitted. A total of 34,629 patients attended follow up OPD. A total number of 5,678 patients were operated upon. With augmented strength of faculty and staff the number of patients treated at JPNATC has increased significantly.

Beside involvement in the undergraduate and postgraduate teaching at AIIMS, the faculty members are actively involved in providing short term and long term training to the medical and paramedical staff of various hospitals and agencies of the country. These are also given training on newer methodology for management of trauma patients including ATLS Protocols, BECC, AUTLS, etc. To update the knowledge, interactive seminars, CMEs, Symposium, Conferences have also been organized.

A total of about 205 research papers have been published in national and international journals. Faculty members are also involved in various research projects and have presented papers based on the research conducted by them in various national and international forums. Based on research, several inputs aiming to reduce incidences of trauma morbidity and mortality have been suggested to policy makers.

Use of information technology in patient care related services and installation of newer equipment related to patient care are the other highlights of functioning of JPNATC.

EDUCATION

Training

The faculty is regularly involved in providing short term/elective training/clinical observership for students from India and abroad. During the year 2014–15, the following were trained at JPNATC:

Army: 10 CRPF: 179 GREF: 29 ITBP: 37
NDRF: 15 Dietetics: 11 Laboratory Medicine: 2

Total: 283

Teaching

Faculty members of JPNATC were regularly involved in teaching and training programmes organized for undergraduate students, postgraduate students, senior residents, nurses, paramedical staff, and OT technicians.

LECTURES DELIVERED

M.C. Misra: 38	Deepak Agarwal: 7	Neeraj Parakh: 2	Subodh Kumar: 21
Adarsh Kumar: 6	Deepak Gupta: 23	Niraj Kumar: 4	Sumit Sinha: 21
Amit Gupta: 36	G.D. Stayarthee: 2	Pankaj Singh: 2	Sushma Sagar: 10
Arulselvi S: 3	Garima Kachhawa: 9	Purva Mathur: 8	Vijay Sharma: 1
Ashish Bindra: 16	Gyanendra Pal Singh: 8	Richa Agrawal: 6	Vivek Trikha: 31
Atin Kumar: 14	Kapil D Soni: 28	Shilpa Sharma: 1	Babita Gupta: 9
Keshav Goyal: 10	Shivanand G: 11	Biplab Mishra: 30	Navedeep Sokhal: 12
Soumita Bagchi: 2	Chhavi Sawhney: 3	Naveen Yadav: 3	

Oral papers/posters presented: 188 Awards won: 6

RESEARCH

Funded projects

Ongoing

1. Study of Quantitative Determination of Aluminium and Zinc levels as a tool in fatal phosphide, Adarsh Kumar, AIIMS, Rs 1,31,700/-
2. Reducing Burden of Injury in India and Australia through Development and Piloting of improved Systems of Care. Australia India Trauma Systems Collaboration, Amit Gupta, 4 Years, 2013-2017, DST
3. Towards improved trauma care outcomes in India. (TITCO), Amit Gupta, 3 Years, 2013-2016, Karolinska Institutet & TISS
4. Proposal for establishment of Cadaveric Skills laboratory at the JPN Apex Trauma Center, AIIMS, Amit Gupta, 4 Years, 2013-2017, ICMR-DHR
5. Identification of circulating procoagulant markers in traumatic brain injury patients and their involvement in development of Early Trauma Induced Acute Coagulopathy (ETIC), S Arulselvi, 2 years, 1.6.14 to 30.5.16, ICMR, Rs 22,53,916/-
6. Histopathological evaluation of Traumatic brain injury (TBI) induced gastro intestinal injury, S Arulselvi, 1 year, 2014-15, Institute, Rs 4,00,000/-
7. Identification of novel circulating procoagulant microparticles in traumatic brain injury patients and their involvement in Pathophysiology of Early Trauma Induced Acute Coagulopathy, S Arulselvi, 3 years, 8.9.14 to 7.9.17, DBT, Rs 49,95,000/-
8. Evaluation of laboratory markers to assess post platelet transfusion response in Thrombocytopenic Traumatic head injury patients, S Arulselvi, 2 years, 26.3.15 to 25.3.17, ICMR, Rs 34,96,794/-

9. Micro RNA Expression Profile In Patients With Renal Mass And Their Association With Prognosis, Ashish Saini, 1 Year, 2014-15, AIIMS, Rs 3.5 lakhs
10. Evaluation of Plasma and Urine Neutrophil Gelatinase-associated Lipocalin (NGAL) as an early diagnostic marker of Acute Kidney Injury (AKI) in trauma patients in surgical intensive care unit, Babita Gupta, 2 Years, July 2014- July 2016, ICMR, Rs 18 Lakhs
11. A study of the role of lymphangiogenesis in breast cancer, Biplab Mishra, 5 Years, 2013-2018, AIIMS, Rs.500000/-
12. Mesenchymal stem cell transplantation for the treatment of Duchene muscular dystrophy – a pilot study, Biplab Mishra, AIIMS
13. Monitoring cognition of healthcare workers in emergency and intensive care setting and its relation to medical errors, Chavvi Sawhney, 4 Years, 2011-2015, DST, Rs 59,86,400/-
14. Urine Matrix Metalloproteinases (MMP) As Biomarkers For Fusion Following Spinal Instrumentation, Chavvi Sawhney, 1 Year, 2014, AOSPINE, India Research Grant, 6000 CHF
15. Early versus Delayed Decompression high Cervical Spinal Cord Injury in Acute Spinal Cord Injury Study: A Randomized Controlled Trial. 2 Years, 2014-2016, DST, Rs 29,00,000/-
16. Role of Ischemia biomarkers and hyperglycemia for predicting outcome in severe traumatic brain injury: a microdialysis study, Deepak Gupta, 2 Years, 2013-2015, AIIMS Intramural Grant, Rs 5 Lakhs
17. CHIRAG study in Severe TBI (Collaborative head injury study in severe traumatic brain injury), Deepak Gupta, 4 Years, 2011-2015, Department of biotechnology DBT and National Institute of Health, Rs 27 lakhs
18. A Randomized Double Blind Controlled Trial to Investigate the Effects of Vitamin D supplementation on maternal and new-born baby's vitamin D status in Asian-Indian Subjects, Garima Kachhav, 3 years, 2013, ICMR Extra Mural Project Grant, Rs 40 Lakhs
19. Role of microdialysis derived metabolic parameters in predicting postoperative complications following laparotomy in the trauma patients- A feasibility and pilot study, Kapil Dev Soni, 1 year, 2014, Intramural AIIMS, Rs 5 lakh
20. Effect of Lidocaine infusion on hemodynamics and recovery in patients undergoing endoscopic pituitary surgery: A multicentre, randomized control trial. (IEC/NP-07/07.01.2013& RP-03/04.03.2013), Keshav Goyal, 2 Years, 7 Feb 2013
21. Blood transfusion protocols in haemorrhagic trauma patients undergoing surgery and assess coagulation status, protein C and protein S values, Naveen Yadav, 1 Year, 2014-2015, AIIMS Delhi, Rs 4,93,000/-
22. A randomized controlled study of the effects of single dose preoperative vitamin C versus placebo on postoperative morphine consumption after spine surgery, Naveen Yadav, 1 year, 2014-2015, AIIMS Delhi, Rs 2,80,000/-
23. Manual thrombus aspiration with fractional flow reserve guided stenting during primary angioplasty, Neeraj Parakh, 2 years, 2014 onwards, Intramural, Rs 10 lacs
24. A randomized controlled study of the effects of single dose preoperative vitamin C versus placebo on postoperative morphine consumption after spine surgery, Niraj Kumar, 1 Year, 2014-2015, AIIMS, Rs 2,80,000/-
25. Molecular and Epidemiological study of Beta-Lactamase producing Gram Negative Nosocomial Pathogens in India, Purva Mathur, 3 years, 2012 –2015, Indian Council of Medical Research, Rs 35,11,343/-
26. Molecular Epidemiology of Carbapenemases at a level 1 Trauma Center of India, 3 Years, 2012-2015, Department of Science & Technology, Rs 23,58,000/-
27. Does real time ultrasonography during bronchoscopy guided percutaneous tracheostomy confer any benefit ; a preliminary randomised controlled trial, Richa Aggarwal, 2 years, 2013-2015, AIIMS Rs 83,000/-
28. Role of microdialysis derived metabolic parameters in predicting postoperative complications following laprotomy; Feasibility and pilot study, Richa Aggarwal, 2 years, 2013-2015, AIIMS, Rs 5 Lakhs.
29. Cervical rotation before and after hinge door cervical laminoplasty, Sachin Borkar, 1 year 2014-2015, AO Spine India
30. Establishing Guidelines for Fetal Counselling for Surgical Congenital Anomalies, Shilpa Sharma, 3 Years, 2014-2017, Department of Biotechnology, Rs 39 lakhs

31. Role of Bone marrow mononuclear cells and Renal Stem cells in renal preservation in Obstructive Renopathy – An Experimental study in mice, Shilpa Sharma, 2 Years, 2013-2015, AIIMS Institute Research Grant, Rs 5 lakhs
32. Prospective monitoring of BK virus replication in the first year following renal transplantation in Indian patients, Soumita Bagchi, 1 Year, 2104-15 (Extension applied), Intramural grant, Rs 320000
33. Reducing the Burden of Injury in India and Australia through Development and Piloting of Improved Systems of Care, Subodh Kumar, 4 Years, 2013-2017, DST, Rs 2.74 Crore
34. Prognostic Significance of Cytokines and Biomarkers in Patients with Traumatic Lung Injuries, Subodh Kumar, 2 Years, 2014-2016, AIIMS, Rs 10 Lakhs
35. Proposal for Establishment of Cadaver Training and Research Facility, Sumit Sinha, 5 years, September 2014 – September 2018, ICMR
36. Sericin based value added Pressure garments, Sushma Sagar, 3 Years, 2013-2016, DBT, Rs 35 lakhs
37. Reducing the Burden of Injury in India and Australia through Development and Piloting of Improved Systems of Care, Sushma Sagar, 4 Years, 2013-2017, DST, Rs 2.74 crore
38. Immunological disruptions in orthopedic trauma patients and its role in formulation of damage control orthopedics guidelines, Vijay Sharma, 1 Year, Ongoing, AIIMS, Rs 4 Lakhs
39. Developing cadaveric research training Facility at trauma centre, Vijay Sharma, 5 Years, 2014, ICMR, Rs 5 crores
40. To Study Clinical, Epidemiological and Environmental Risk Factors Associated with Fragility Hip Fracture in Elderly Asian Indians, Aged e”60 Years, Vijay Sharma, 3 Years, 2013, ICMR, Rs 38 lacs
41. Temporal Expression of Serum Biochemcial markers of bone turnover in femoral shaft fractures operated with intramedullary nailing’, Vivek Trikha , Intramural project, 2014-15. Total Cost: Rs. 5 lakhs

Completed

1. Study of coagulation and inflammatory changes in patients with post-traumatic fracture shaft femur undergoing intra medullary nailing, S Arulselvi, 2 Years, Institute, Rs 1st Year 5,00,000 2nd Year 4,25,000/-
2. Thromboelastometry (TEG): Utility And Cost-Effectiveness In Diagnosing Of Infection In Neurosurgery Intensive Care Unit (ICU) As Compared To Established Biomarkers, Chavvi Sawhney, 2 years, 2012, AIIMS, Rs10,00,000/-
3. EUROTHERM 3235 Titrated therapeutic Hypothermia for control of refractory intracranial hypertension in traumatic brain injury, Deepak Gupta, 3 Years 2012-2015, University of Edinburgh and NHS Lothian (UK), Rs 45 Lakhs
4. Evaluation of Vascular Endothelial function by physiological and biochemical markers in women with preeclampsia versus normal healthy pregnancies, Garima Kachhava, 2 years 2012-2014, Intra mural Research Grant, Rs 5 Lakhs
5. Evaluation of Non neurological complications in patients of severe head injury. (IEC/NP-365/2013), Keshav Goyal, Completed, August 2013
6. Prognostic value of serially estimated serum procalcitonin in multiple trauma victims with and without head injury, Keshav Goyal, Completed, October 2012
7. A week in neurocritical care unit: Point prevalence observational study in Neurocritical care, (IEC/NP-190 2014 RP -03/2014), Keshav Goyal, Completed, July 2014
8. Development and Implementation of an Automated Electronic Surveillance System for Hospital Acquired Infections at a Tertiary Care Hospital of India, Purva Mathur, 4 Years 2011-2015, Indian Council of Medical Research, Rs 15,26,906/-
9. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis of organ dysfunction and sepsis, Purva Mathur, 3 years, 2012-2015, Department of Biotechnology, Rs 36,96,000/-
10. Molecular and epidemiological study of *Streptococcus pyogenes* at a tertiary care hospital of north India, Purva Mathur, 3 Years 2009-2012, Indian Council of Medical Research, Rs 17,06,949/-

11. DTI tractography for prediction of facial nerve position in vestibular schwannoma, Sachin Borkar, 1 year 2013-2014, AIIMS Intramural research grant, Rs 2,52,000
12. To study the role of recombinant human erythropoietin in trauma victims with hemorrhagic shock : An invitro Approach through stem cell differentiation, Sanjeev Bhoi, 3 Years, 1/09/2011 to 30th September 2014, ICMR, Rs 43,00,000/-
13. To study the safety and efficacy of estrogen in a trauma hemorrhagic shock patients, Sanjeev Bhoi, 3 Years, 1/10/2011 to 30th Oct. 2014, ICMR, Rs 37,00,000/-
14. Temporal Expression of growth factor TGF- B1 and VEGF after intramedullary nailing of the femoral shaft fractures, Vivek Trikha , Intramural project, 2012-14. Total Cost: Rs. 10 lakhs.

Departmental projects

Ongoing

1. Study of Quantitative determination of Aluminium and Zinc Levels as a tool in fatal Phosphide Poisoning, Adarsh Kumar
2. Toxicological Analysis & Distribution pattern of alcohol and different drugs in various biological samples and their neurobiological effects in suicidal deaths, Adarsh Kumar
3. To Study the outcomes in patients undergoing tracheostomy for trauma and other surgical indications, Amit Gupta
4. To study the quality of life in patients undergoing Splenectomy for hematological disorders, Amit Gupta
5. Identification of circulating procoagulant markers in traumatic brain injury patients and their involvement in development of Early Trauma Induced Acute Coagulopathy, S Arulsevi
6. Assessment of post trauma cytokine producing potential of monocytes for early diagnosis of organ dysfunction and sepsis, S Arulsevi
7. The study of mitochondrial DNA mutations and reactive oxygen species in Parkinson's disease, S Arulsevi
8. Study of polymorphisms in TNF α , IL1 β , IL 6 genes in patients of depression, their association with clinical severity, S Arulsevi
9. Minimally invasive management of patients with ureteral trauma, Ashish Saini
10. Outcomes following Graft urethroplasty for anterior urethral strictures, Ashish Saini
11. Etiopathogenesis, demographic profile,erectile Dysfunction and socioeconomic impact in patients with Pelvic fracture urethral distraction defects: A prospective cohort study, Ashish Saini
12. Prospective comparison of clinical and urodynamic parameters in Tethered cord syndrome tract symptoms before and after surgical intervention, Ashish Saini
13. CT and MR evaluation of CSF rhinorrhea, Atin Kumar
14. Dynamic MRI in evaluating upper airway in Obstructive Sleep Apnoea Syndrome, Atin Kumar
15. Surgical outcome and disease remission following video assisted thoracoscopic thymectomy in patients with myasthenia gravis, Biplab Mishra
16. Comparison of cosmetic outcome and resection margin following intraoperative usg guided excision with conventional palpation guided breast conservation surgery in breast cancer- a randomized controlled trial, Biplab Mishra
17. Long term outcome of sentinel node biopsy in early and operable breast cancer patients, Biplab Mishra
18. Assessment of quality of life following definitive surgery, Biplab Mishra
19. To study the reduction in intra- and postoperative analgesia requirement and the quality of recovery after pre emptive Intrathecal morphine in patients with pelvic acetabular injuries undergoing stabilization, Chavvi Sawhney
20. To study the role of preoperative echocardiography and cardiac evaluation in perioperative management of geriatric patients with hip fracture in a level 1 trauma centre in a developing country : A retrospective study, Chavvi Sawhney
21. Traumatic atlantoaxial dislocations : outcome study, Deepak Gupta

22. Adult Tethered cord : Long term outcome, Deepak Gupta
23. Cerebral microdialysis in TBI : efficacy study, Deepak Gupta
24. The expression of human epididymis protein 4 (HE4) in ovarian carcinoma and correlation with prognosis, Garima Kachhva
25. Screening for congenital thrombophilia in patients presenting with unexplained infertility and comparison with normal population and cases with recurrent pregnancy loss, Garima Kachhva
26. To compare the efficacy of intramyometrial vasopressin plus rectal misoprostol with intramyometrial vasopressin alone to decrease blood loss during laparoscopic myomectomy : A randomized clinical trial, Garima Kachhva
27. To evaluate the pregnancy rate after endometrial scratching in couples with unexplained infertility in ovulation induction and IUI cycles, 2014, Garima Kachhva
28. Anaesthetic management of paediatric patients with traumatic brain injury in a tertiary level trauma centre – A retrospective study, Gyanendra Pal Singh
29. Does real time ultrasound confer any benefit during bronchoscopy guided tracheostomy; a preliminary randomised controlled trial, Kapil Dev Soni
30. Intraoperative use of dexmedetomidine in large vascular Meningiomas, Keshav Goyal
31. Cardiovascular complications after traumatic spinal cord injury, Keshav Goyal
32. To study the risk factors and causes of extubation failure in head injury patients, Keshav Goyal
33. Effects of dexmedetomidine for ICU sedation in head injury patients, Keshav Goyal
34. To compare the analgesic efficacy of ultrasound guided quadratus lumborum block to ultrasound guided transversus abdominis plane (tap) block in patients undergoing operative laparoscopic gynaecological procedures under general anaesthesia, Naveen Yadav
35. Correlation of pacing site in right ventricle with QRS Complex duration, Neeraj Parakh
36. Characteristics of thrombus aspirated in patients undergoing primary PCI for Acute Myocardial Infarction and its prognostic significance, Neeraj Parakh
37. Anatomical variations of internal jugular vein in relation to carotid artery and its implication on ultrasound guided cannulation: an observational study, Niraj Kumar
38. A novel loop mediated isothermal amplification assay (LAMP) for rapid detection and differentiation of *M. tuberculosis*, *M. avium* complex and NTM from clinical samples, Purva Mathur
39. Molecular detection of multidrug resistance in *M tuberculosis* from slides and filter paper in middle and low income countries, Purva Mathur
40. Cloning, Expression, Purification and evaluation of a recombinant antigen for diagnosis, prognosis and prediction of MDR/XDR tuberculosis, Purva Mathur
41. Animal studies of chimeric DNA vaccine for prophylaxis of Leishmaniasis and tuberculosis, Purva Mathur
42. Alu PCR for detection and differentiation of VL & PKDL strains of Leishmania, Purva Mathur
43. To develop a single step PCR (RT-PCR) for the detection of A-G hepatitis viral infections in patients blood, Purva mathur
44. Comparative whole genome sequence analysis of Miltefosine resistant and sensitive strains of *L. donovani*, Purva Mathur
45. Cerebral microdialysis in traumatic brain injury patients, Sachin Borkar
46. CT angiography in CVJ anomalies: a prospective study, Sachin Borkar
47. To study the role of recombinant human erythropoietin in trauma victims with hemorrhagic shock : An in vitro Approach through stem cell differentiation, Sanjeev Bhoi
48. To study the safety and efficacy of estrogen in a trauma hemorrhagic shock patients, Sanjeev Bhoi
49. An ambispective evaluation of prognostic factors and long term outcome in patients of Hepatoblastoma, Shilpa Sharma

50. An ambispective evaluation of prognostic factors and long term outcome in patients of Neuroblastoma, Shilpa Sharma
51. Knowledge, stress and coping abilities of parents of children below 18 yrs having Congenital adrenal hyperplasia, Shilpa Sharma
52. Vascular mapping in arteriovenous fistula creation in CRF Patients, Shivanand Gamangatti
53. Role of MRI in the diagnosis and follow up of NAFLD (Non-Alcoholic Fatty liver Disease), Shivanand Gamangatti
54. Role of CT cisternography and MR cisternography in patients with traumatic CSF rhinorrhoea, Shivanand Gamangatti
55. Role of Dual Phase CT in blunt abdominal Trauma, Shivanand Gamangatti
56. Role of MRI in Evaluation of Intestinal Ulcero-constrictive lesions, Shivanand Gamangatti
57. The profile and risk factors of infections requiring hospitalisation in the first year after renal transplantation, Soumita Bagchi
58. To delineate the pattern of biopsy proven renal disease in a tertiary care hospital in India, Soumita Bagchi
59. Retrospective study for evaluating the Oxford classification of IgA nephropathy in the Indian population, Soumita Bagchi
60. Retrospective study for evaluating the profile of biopsy proven kidney disease in elderly patients in India, Soumita Bagchi
61. Prospective and Retrospective evaluation of role of laparoscopy in patients with abdominal trauma at Level I Trauma Centre, Subodh Kumar
62. Standard four port laparoscopic cholecystectomy versus single incision laparoscopic cholecystectomy- a prospective randomized trial, Subodh Kumar
63. The impact of standard pressure and low pressure pneumoperitoneum in shoulder pain following laparoscopic cholecystectomy- a double blind randomized control trial, Subodh Kumar
64. Feasibility of postoperative CT Scans in elective neurosurgical patients, Sumit Sinha
65. Clinical types, hormonal profile and surgical outcome in patients with Gynaecomastia (2013), Sushma Sagar
66. A Prospective Randomized Control Study Comparing Functional And Radiological Outcome in Elderly Patients With Type A 1 And A 2 Intertrochanteric Fracture Treated By Proximal Femoral Nail Anti-Rotational (PFNA) VS Dynamic HIP Screw (DHS), Vijay Sharma
67. A Prospective Study of Pelvic Fracture Managed In Level 1 Trauma Centre, Vijay Trikha

Completed

1. RANTES (Regulated upon Activation, Normal T cell Expressed, and Secreted) levels in plasma, cerebrospinal fluid and contused brain tissues as a marker of immune activation in Traumatic Brain Injury (TBI) patients, S Arulselvi
2. The role of T cell apoptosis, neurotrophins, cytokines, and genetic polymorphisms in clinical manifestation of depression in adolescents, S Arulselvi
3. Outcome analysis of patients with testicular tumours and Undescended testes, Ashish Saini
4. Complications of laparoscopic nephrectomy on the Clavien Dindo Scale in a contemporary cohort, Ashish Saini
5. Outcomes following Ureteroscopy for poorly functioning kidneys due to ureteric stones, Ashish Saini
6. Magnetic Resonance Imaging evaluation of adult traumatic brachial plexus injury, Atin Kumar
7. Role of perfusion CT in evaluation of non-small cell lung carcinoma in patients undergoing chemotherapy, Atin Kumar
8. Emergency General Surgical Admissions: Prospective Institutional experience in Non- Traumatic Surgical Acute Abdomen (NTSAA), Biplab Mishra
9. Early vs Late surgery in acute cervical trauma : outcome study, Deepak Gupta

10. Vasospasm in surgery vs endovascular clipping of supratentorial hemorrhage, Deepak Gupta
11. Randomized clinical trial to assess the efficacy of myoinositol versus metformin on clinical, metabolic and hormonal parameters of polycystic ovary syndrome, Garima Kachhva
12. Glucose Intolerance among subjects with PCOS: A two year follow up study, Garima Kachhva
13. Comparison of strength of association of Reid's colposcopic index versus Swede's score with histology in colposcopic guided biopsy, Garima Kachhva
14. To study ovarian reserve after laparoscopic endometriotic cystectomy and to correlate the effect of post cystectomy ovarian suppression with fertility outcome : A randomized controlled trial, Garima Kachhva
15. Evaluation of vascular endothelial function in early pregnancy by biophysical and biochemical markers and correlate with development of preeclampsia in later pregnancy, Garima Kachhva
16. To study the levels of cytokines and pentraxin 3 levels in women with unexplained recurrent pregnancy loss and the effect of oral micronized progesterone therapy on cytokine and pentraxin 3 levels and its relation to the pregnancy outcome, Garima Kachhva
17. A study of prevalence of human papilloma virus infection and cervical abnormalities in human immunodeficiency virus infected women, Garima Kachhva
18. To study the role of recombinant human erythropoietin in trauma victims with hemorrhagic shock : An invitro Approach through stem cell differentiation, Sanjeev Bhoi
19. To study the safety and efficacy of estrogen in a trauma hemorrhagic shock patients, Sanjeev Bhoi
20. Role of MRI in the evaluation of brachial plexus injuries, Shivanand Gamangati
21. Randomized control trial of SILC vs standard 4 port laparoscopic cholecystectomy, Subodh Kumar
22. RCT of comparison of various methods of mesh fixation in laparoscopic incisional and ventral hernia repair, Subodh Kumar
23. Clinoidal Meningiomas, Sumit Sinha
24. Retrospective cum prospective nonrandomized analytical study involving patients with severe TBI undergoing DC, Sumit Sinha.

Collaborative projects

Ongoing

1. Epithelial-to-Mesenchymal Transition (EMTs) in Ependymoma. Department of Pathology
2. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis of organ dysfunction and sepsis. Department of Lab Medicine, JPNATC, AIIMS
3. Enumeration of T-helper-9, T helper – 17, T helper – 22 and T-regulatory lymphocytes in Post- trauma immunopathogenesis and outcome. Department of Lab Medicine, JPNATC, AIIMS
4. Role of Contrast enhanced Ultrasound in the evaluation of blunt traumatic solid abdominal organ injury. Department of Radiodiagnosis. JPNATC, AIIMS.
5. A study to find out the effectiveness of Psychological first aid training (PFAT) module in modifying knowledge and attitude of nurses working in a trauma unit. Department of College of Nursing, AIIMS
6. A randomized controlled study of the effects of single dose preoperative vitamin C versus placebo on postoperative morphine consumption after spine surgery. Department of NeuroAnaesthesia, JPNATC
7. Evaluation of coagulation status in trauma haemorrhagic shock patients (THS) who undergo emergency surgery using thromboelastography, Protein C and Protein S markers. Department of Anaesthesia, JPNATC
8. Temporal Expression Of Serum Biochemical Markers Of Bone Turnover In Femoral Shaft Fractures Operated With Intramedullary Nailing. Department of Orthopedics, JPNATC
9. Evaluation of Plasma and Urine Neutrophil Gelatinase-associated Lipocalin (NGAL) as an early marker in predicting AKI in Trauma patients in surgical intensive Care Unit. Department of Anaesthesia, JPNATC
10. A randomized double controlled trial to investigate the effects of vitamin D supplementation on maternal and new born baby's vitamin D status in Asian Indian subjects. Departments of Endocrinology & Gynecology, AIIMS

11. Erectile dysfunction in patients with obstructive sleep apnea(Department of Medicine)
12. Long term outcomes(urologic) in patients with neurogenic bladder following surgery for MMC and tethered cord syndrome : A prospective study Department of Medicine
13. A prospective study comparing outcomes and quality of life after laparoscopic donor nephrectomy versus open donor nephrectomy. Department of Surgery
14. Mutational spectrum of tuberous sclerosis in Indian patients. Department of Genetics, Pediatrics
15. To study the mutation spectrum, and its correlation with histopathology, neuroimaging and biochemical metabolites in Indian patients with mitochondrial disorders. Department of Genetics, Pediatrics
16. Comparison of virtual and conventional autopsy in phenotypic characterization in stillbirths. Department of Pediatrics
17. Development and Implementation of an Automated Electronic Surveillance System for Hospital Acquired Infections (ICMR funded Project) Department of Laboratory Medicine, JPNATC, AIIMS
18. Australia India Collaboration Systems project AITSC. Australia – India DBT
19. Development and Implementation of an Automated Electronic Surveillance System for Hospital Acquired Infections at a Tertiary Care Hospital of India. ICMR
20. Evaluation of vascular functions, baroreflex sensitivity and biochemical factors to investigate Pre eclampsia. Department of Physiology
21. Role of CD14high CD16+ blood monocytes in regulation of anti-inflammatory cytokines in post cytokines in post traumatic patients. Department of Microbiology,Surgery
22. Role of microdialysis derived metabolic parameters in predicting postoperative complications following laparotomy in the trauma patients' A feasibility and pilot study. Department of Surgery, Neurosurgery.
23. Prognostic Potential of cytokines and biomarkers in traumatic lung injuries and polytrauma: Institute Research Grant. Department of Microbiology, Surgery
24. Role of Post-Trauma Lymphocyte - Monocyte Response and Programmed Death- 1 Levels in Early Diagnosis of Sepsis and Prognosticating Outcome in Trauma Patients: Department of Microbiology, Surgery
25. Effect of Lidocaine infusion on hemodynamics and recovery in patients undergoing endoscopic pituitary surgery: A multicentre, randomized control trial.
26. Department of Anaesthesiology, Health Sciences Centre, University of Manitoba, Winnipeg, Canada
27. Prospective study on the effectiveness of chlorhexidinegluconate impregnated patch (BIOPATCH[®]) in reducing the incidence of central line associated blood streaminfection (CLABSI). Department of Microbiology, JPNTC, AIIMS
28. 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, JPNTC, AIIMS
29. 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.
30. Electrolyte abnormalities in patients with head injury during ICU stay: a prospective observational study. Department of Lab Medicine, JPNATC, AIIMS
31. Prevalence of deep vein thrombosis in Indian population in cohort of trauma patients. University of Michigan and JPNATC, AIIMS
32. Proposal for the establishment of a cadaveric dissection facility at the Jai PrakashNarain Apex Trauma Center, All India Institute of Medical Sciences, New Delhi, India Department of Neurosurgery, JPNA Trauma Center
33. Role of Bone marrow mononuclear cells and Renal Stem cells in renal preservation in Obstructive Renopathy – An Experimental study in mice. Department of Pediatric Surgery
34. To study the role of recombinant human erythropoietin in trauma victims with hemorrhagic shock : An invitroApproach through stem cell differentiation
35. To study the safety and efficacy of estrogen in a trauma hemorrhagic shock patients

36. Enumeration of Haematopoietic Progenitor Cells at the time of admission in trauma patients and study of its correlation with outcome – A Retrospective Study. Department of Lab medicine, JPNATC and Department of Biostatistics, AIIMS.
37. Identification of Copy Number Variations in familial and sporadic North Indian Hypospadias patients
38. Role of Dynamic MRI in evaluation of osteosarcoma. Orthopedics
39. A Comparative Study of Laparoscopic Donor Nephrectomy vs Open Donor Nephrectomy in live related renal transplantation. Nephrology
40. RCT of Quality of life outcomes after single stage vs two stage treatment of patients with concomitant gall stones and CBD stones. Gastroenterology, Psychiatry
41. Early Identification of Mild Traumatic Brain Injury induced cognitive deficits using novel coated platelet marker, DBT

Completed

1. D-dimer and other coagulation parameters in operable breast cancer with lymph node metastasis. Department of Oncology, Lab medicine (AIIMS)
2. To study the Role of recombinant human erythropoietin in trauma victims with hemorrhagic shock: *An invitro* approach through stem cell differentiation. Department of Emergency Medicine, JPNATC
3. Effect of conjugated estrogen on trauma hemorrhagic shock patients. Department of Emergency Medicine, JPNATC
4. Temporal expression of growth factor TGF- β 1 and VEGF after intramedullary nailing of the femoral shaft fractures. Department of Orthopedics, JPNATC
5. Retrospective and prospective study to evaluate the role of Laparoscopy in patients with abdominal trauma at level I trauma center. Department of Surgery
6. Comparison of quality of life after single stage vs two stage management of patients with concomitant gallstones and CBD stones : a randomized controlled trial. Department of Surgery
7. A study of ultrasonogram skeletal muscle in the assessment of hypotonic children. Department of Pediatric Neurology
8. RANTES (Regulated upon Activation, Normal T cell Expressed, and Secreted) levels in plasma, cerebrospinal fluid and contused brain tissues as a marker of immune activation in Traumatic Brain Injury (TBI) patients. Department of Lab Medicine, JPNATC
9. To study the safety & efficacy of progesterone in traumatic brain injury (Randomized Clinical Trail). Department of Neurosurgery, JPNATC
10. Arthroscopy of hip in children with Legg-calve Perthes disease and its correlation with imaging. Department of Orthopedics
11. MDCT in ACL reconstruction. Department of Orthopedics
12. A Prospective Randomized Comparison of Testicular Function, Sexual Function and QOL following Laparoscopic TEP and TAPP Inguinal hernia repair. Department of Psychiatry, Reproductive biology

PUBLICATIONS

Journals: 201 Abstracts: 4 Chapters in books: 18

PATIENT CARE

Total Bed Strength of facility:	186		
Ward beds:	120	ICU beds 2nd floor:	16 ICU beds 3rd floor: 20
Triage:	30		
Total functional beds:	176		
Ward beds:	144	ICU beds 2nd floor:	20 ICU beds 3rd floor: 12

Coagulation

PT:	26217	APTT:	26217
TT:	355	Fibrinogen:	520
D-dimer:	355		
Thromboelastography (TEG):		2585	
Total	56,249		

2. Clinical pathology

Urine routine and microscopy:	5358	Urine myoglobin:	1505
CSF microscopy:	2070	Fat globules:	220
Total	9153		
Total tests conducted in hematology section:		5,01,755	

3. Biochemistry

Sugar:	10442	Urea:	37979
Creatinine:	37921	Calcium:	28977
Phosphorous:	29068	Uric acid:	22594
Sodium:	37827	Potassium:	37812
TBIL:	21158	DBIL:	21124
Total protein:	20622	Albumin:	20617
SGOT:	20320	SGPT:	20221
ALP:	20225	Cholesterol:	3761
Amylase:	4527	HDL:	1051
LDL:	1051	TG:	1058
VLDL:	851	CK:	1155
Mg:	1669	Lipase:	34
CK-MB:	80	CSF Sugar:	1216
CSF Protein:	1375	Peritoneal fluid sugar:	100
Peritoneal fluid Protein:	91	Urine sugar:	207
Urine protein:	207	Ionic Calcium (urine):	400
Urinary spot sodium:	13	Urinary calcium:	406
Urinary creatinine:	406	Pleural fluid amylase:	13
Microalbumin:	50	Lactate:	18
Drain amylase:	18	ABG:	10926
Electrolytes:	10926		
Total tests conducted in biochemistry section		4,94,072	

4. Microbiology

Culture:	12862	Bacterial identification:	3016
Antibiotic sensitivity:	3016	HIV serology:	1249
Hepatitis B serology:	1255	Hepatitis C serology:	1133
Hospital infection surveillance culture:	3788	PCT:	530
Total tests conducted in microbiology section		26849	

5. Histopathology

Specimen processed:	535	No. of blocks:	1000
Total No. of slides:	1256		
Total tests conducted in Histopathology		2791	

Grand Total: 10, 25,467

Blood Bank

Month	Donor screened	Donor bled	Replacement donors			Voluntary donors			Indoor voluntary donor	Outdoor camp voluntary donor
			Male	Female	Total	Male	Female	Total		
Apr 14	816	668	448	2	450	205	13	218	128	90
May 14	915	751	549	3	552	194	5	199	125	74
June 14	840	701	562	5	567	133	1	134	116	18
July 14	863	729	572	4	576	149	4	153	153	nil
Aug 14	983	789	556	2	558	203	28	231	126	105
Sep 14	1056	834	516	3	519	282	33	315	134	181
Oct 14	733	630	491	2	493	137	0	137	137	nil
Nov 14	1100	896	472	6	478	413	5	418	405	13
Dec 14	764	629	440	8	448	174	7	181	101	80
Jan 15	817	682	505	8	513	165	4	169	120	49
Feb 15	788	648	516	2	518	125	5	130	99	31
Mar 15	928	738	590	4	594	139	5	144	92	52
Total	10603	8695	6217	52	6266	2319	110	2429	817	693

Component Separation Laboratory

Month	Packed RBC prepared	Fresh frozen plasma prepared	Platelets prepared prepared	Cryoprecipitate
Apr 14	668	553	481	111
May 14	751	618	575	108
June 14	701	614	591	75
July 14	729	569	568	110
Aug 14	789	591	516	142
Sep 14	834	695	598	133
Oct 14	630	569	502	84
Nov 14	896	734	569	59
Dec 14	629	529	483	64
Jan 15	682	561	539	65
Feb 15	648	522	494	92
Mar 15	738	549	518	131
Total	8695	7104	6434	1174

Quality control of blood and components: 1% of all units

Grouping Lab

Month	Donor grouping	Patient grouping	Total
Apr 14	668	841	1509
May 14	751	952	1703
June 14	701	924	1625
July 14	729	933	1662
Aug 14	789	883	1672
Sep 14	834	881	1715
Oct 14	630	949	1579
Nov 14	924	956	1880
Dec 14	629	891	1520
Jan 15	682	842	1524
Feb 15	648	895	1543
Mar 15	738	964	1702
Total	8723	10911	19634

Emergency Issue Counter

Month	Total samples received	Samples for cross-match	Number of cross-match done	Number of packed RBC issued	FFP issued	PRC issued	Cryo issued
Apr 14	841	765	2187	719	476	355	70
May 14	952	832	2445	846	446	410	156
June 14	924	785	2327	706	422	540	133
July 14	933	827	2449	828	457	472	128
Aug 14	883	779	2308	704	542	523	97
Sep 14	881	805	2407	685	294	377	90
Oct 14	949	862	2664	774	449	408	176
Nov 14	956	839	2562	718	717	450	77
Dec 14	891	801	2328	689	458	306	26
Jan 15	842	767	2081	689	637	335	149
Feb 15	895	813	2425	651	325	334	104
Mar 15	964	889	2512	683	531	373	147
Total	10911	9764	28695	8692	5754	4883	1353

Blood and Components issued to Other Hospital Blood Banks

(MAIN AIIMS, CN Centre, GB Pant, LNH, ESI, Dr. Hedgewar)

Month	Blood		FFP		Platelet	
	Issued	Received	Issued	Received	Issued	Received
Apr 14	54	3	140	nil	nil	nil
May 14	41	15	nil	nil	nil	nil
June 14	3	34	nil	nil	10	31
July 14	4	16	nil	nil	nil	24
Aug 14	3	78	140	nil	20	nil
Sep 14	8	26	nil	nil	10	nil
Oct 14	2	8	140	nil	24	nil
Nov 14	34	nil	140	nil	nil	nil
Dec 14	90	19	314	nil	10	nil
Jan 15	94	35	360	nil	13	nil
Feb 15	6	nil	nil	nil	nil	nil
Mar 15	6	36	100	nil	nil	nil
Total	345	270	1334	nil	87	55

Total number of Packed RBC issued to other blood banks **270**

Total number of FFP issued **1334**

Total number of Platelets issued **87**

Central Registration & Emergency Reception

By virtue of its location, the CRC initiated and undertook the function of Emergency Reception of JPNATC approximately 400-500 enquiries are attended daily at first hand and about 90% of these are sorted out at this level. It is providing information regarding patient care; follow up, organizational structure, hospital administration and related services to Patients, Relatives/Attendants, Police, Media and General Public. Satisfaction of majority of visitors query at the entrance itself reduces the rush and crowd inside Trauma centre is thus helping in better management of all existing facilities. CRC at present is functioning as a Multifunctional emergency Reception with three separate dedicated counters for (a) Round the clock casualty registration (b) Round the clock wards/ ICU admission (c) Inquest Papers clearance counter.

Follow-up OPD Registration Counter

In addition to improvements introduced last year regarding queue management system; a single window system of disposal was done for Certification of Medical/ Fitness and Reimbursement claims. Dedicated Brachial Plexus Clinic, Pain Clinic & Pre anaesthetic Clinic was also started in current year of reporting.

Main Medical Records Division

In addition to above, **Medical Record Section (MRS) of JPNATC which is the FIRST Govt. Hospital** who had started Online Registration of Deaths at NDMC since year 2008 is running successfully & also coordinating the amendments pertaining to deceased after due legal procedure (**name correction - 174**). **ICD-10 coding** of all deaths reported at JPNATC which was started last year was done online. MRS is regularly disposing of summons from various Hon'ble Courts in Delhi as well as other neighboring states. Total **2194 (Within Delhi – 2060 and 134-outside Delhi)** summons were disposed off during this period. MRS is also handling various Insurance Policy matters of patients who attended JPNATC in both case whether alive or dead. Total **49** such cases were disposed off during this period. During the preceding year MRS has entertained **120** police requests for Discharge records/ Bed Head Ticket and also issuing X-rays; & coordinating for collection of X-rays from

Radio-diagnosis unit & handing over to police. Total **833** such cases were disposed off during this period. MRS is furthermore involved in issuing information (for assistance/ compensation etc.) to Delhi State/ Central Govt. pertaining to the patients/victims attended JPNATC during the year. The replies of questions raised under Right to Information Act 2005 by various applicants, were also provided by MRS in **54** cases. MRS has provided the basic framework as well as continuous inputs to computer facility; so as to computerize whole registration process in a phased manner. The custody of **26,000 electronic MLCs** lying with Police Post JPNATC after introduction have been taken in a phased manner. Retrieval of case files for faculties/residents/nursing staff/lab staff/computer facility as and when requested was done for **2305 cases for research purpose**.

FORENSIC MEDICINE AND TOXICOLOGY (JPNATC)

- A. Casualty Services:** Forensic Medicine and Toxicology division at JPNATC is providing round-the-clock medico-legal services like in cases of injury, sexual offences etc to the South and South-east district of Delhi.
- B. Mortuary Services:** A total of **817** medico legal autopsies were conducted at mortuary of JPNATC.
- C. Clinical Forensic Medicine:** Subsequent opinions in complicated cases including reference from Casualty etc was **309** cases at JPNATC.
- D. Summons:** Doctors of the department attended court of law in cases from Delhi and other states
- E. Medical Toxicology:** About **32** tests were performed for blood alcohol referred from the emergency department in academic cases.
- F. Forensic Pathology in collaboration with Department of Laboratory Medicine:** Total samples of **24** cases were done during this period.
- G. Community Services:** The department continues to participate in training program for CBI officials, police officers and public prosecutors from all over the country.
- H. Organ Retrieval for Therapeutic Transplantation:** Forensic Medicine division of JPNATC facilitated eye donation, heart valve donation and organ retrieval in brain dead trauma patients for transplantation by National Eye Bank and ORBO.

New Facilities

Established Cadaver Training and Research Facility

A State of the Art Research & training facility, for the education of students as well as qualified Professionals has been created. The Cadaveric Research and Training facility (CTRF), one of its kind, has been developed with the intention to provide an opportunity to learn in a 'near life' situation. The facility has been made possible through a generous grant from Indian council of Medical research (ICMR) and Department of Health Research (DHR), New Delhi.

CTRF is committed to provide facilities and resources for conducting courses for medical graduates and professionals across the country and abroad. The lab is located at the basement area of JPNA Trauma center and has an approximate area of 50 x 50 ft. The CTRF has a capacity for 6 cadaver work stations. The facility provides specially prepared cadavers suitable for any form of surgical training. This enables us to conduct courses all the year round, in Basic & advanced surgical procedures, orthopaedic (Shoulder, Pelvis and acetabulum and Arthroscopy) procedures, Neurosurgical & spine procedures, surgical exposures, ENT, Gynecology, Interventional GI endoscopic, Digestive and Colorectal, Emergency Medicine, Anaesthesiology and keyhole surgery like Arthroscopy, Laproscopy, Cystoscopy, Neuroendoscopy etc.

The cadaver laboratory also allows biomedical research to develop and validate new products, techniques, implants and new surgical procedures.

CTRF has cadavers with organoleptic properties, which mimic almost real life situations. The commonly used formalin embalmed cadavers are rigid & are of little use for surgical training. Hence, AIIMS forensic specialists have devised a novel method of whole body preservation, due to which the cadaver remains soft for longer periods and the body tissues feel a lot like almost normal living patient. All cadavers are rigorously tested for infection by our microbiologists before being transported to the CTRF. These tests screen all donors for infectious diseases such as HIV, Hepatitis B and C etc.

Dr Sumit Sinha is the principal investigator of the project and till now CTRF has trained 250 surgeons across the country in various specialties in a short time of 6 months.

Formulated Traumatic brain Injury Guidelines for India

Currently, in India there is a lack of optimum care and not a clear understanding on the best practices or what is optimum care. Although trauma is not a 100% preventable problem, it is however a condition where post injury-care creates significant social and economic burden on the patient and family. There is lack of best treatment practice of patients who do not experience spontaneous recovery.

The road to recovery from TBI is long and arduous, and persistent symptoms/neurologic deficits demand prolonged continuous treatment and management. Many TBI patients experience significant symptoms beyond the normal recovery period, which can include post-traumatic headache, sleep disturbance, disorders of balance, cognitive impairments, fatigue, and mood or affective disorders. With high incidence of TBI this potentially translates to a significant number of individuals who may experience associated disability.

A nationwide project was initiated to create evidence-based, best practice care guidelines for healthcare professionals treating patients with a traumatic brain injury (TBI). A practice document was developed covering evidence-based recommendations from awareness and prevention to pre-, in-hospital care and neurorehabilitation aspects of TBI. The sole objective of developing these guidelines is to establish standardized state of art care across India, so that all patients who sustain neurotrauma obtain similar care. The various hospitals have been divided into five levels depending upon the services provided by them, with level I being the hospital with the state-of-the-art facilities and Level V being a center with rudimentary facilities.

The purpose of developing these Indian centered guidelines is to improve patient care by creating a framework for health professionals to effectively identify, prevent, and treat TBI. The Indian and global experts on Traumatic Brain Injury have leveraged each other's support for analyzing various ground realities and started the initial step towards a model emergency medicine system across India.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor M.C. Misra delivered the following **prestigious orations** (i) Eggleston Oration titled 'Surgical management of endocrine hypertension–Transperitoneal Anterior Laparoscopic Adrenalectomy: The Gold Standard of the Current Millennium', 22 November 2014, PGIMER, Chandigarh, (ii) SELSI (Society of Endoscopic and Laparoscopic Surgeons of India) Oration 2014 titled 'Management of surgical hypertension. Laparoscopic Adrenalectomy: Gold standard of current millennium', 20 September 2014, Kalinga Hospital, Bhubaneswar, 7th Annual Conference and Live Workshop of SELSI (iii) Injury: Epidemic of the 21st century: National Perspective, Ramji Lal Swarnkar Oration 2014, Mahatma Gandhi University of Medical Sciences and Technology, Jaipur, 21 June 2014; **Received Award** at International ATLS Meeting, 25–26 October 2014, San Francisco, USA; DMA Centenary Award, during function to celebrate 100 years Delhi Medical Association, Vigyan Bhawan, 10 August 2014; **Hosted** 42nd AIIMS Convocation, 20 October 2014, Prime Minister of India was Chief Guest gave awards and delivered Convocation Address and President, AIIMS giving away degrees to 562 successful awardees. **Nominated Member of Executive Council**, Banaras Hindu University, Varanasi by President of India, March 2015 for 3 years; Member, Standing Finance Committee, NEIGRIMS, 23 March 2015; **Member**, Selection Committee, for Professor at Cluster Innovation Centre, University Of Delhi, 8 March 2015; **Member**, Selection Committee, for faculty selections, Hamdard Institute Of Medical Sciences, Hamdard Nagar, New Delhi, 2 December 2014; **Member**, Search and Selection Committee for post of Director, Sanjay Gandhi Postgraduate Institute, Lucknow, 26 September 2014; **Member**, Search and Selection Committee for post of Vice Chancellor, Kerala University of Health Sciences, Kerala; **Examiner**, IMRCS examination, conducted by Royal College of Physicians and Surgeons, Glasgow, UK, in SGRH, Delhi, 8–9 September 2014; MS (General Surgery), Banaras Hindu University, Institute Of Medical Sciences, Varanasi, 19–20 April 2014; **Hosted** Director, Wellcome Trust, 7 November 2014, to discuss partnership between AIIMS and Wellcome Trust, UK about its funding mechanism for a Public Health Initiative; **Chief Guest:** (1) Inaugural Session, DST–UK Seminar titled 'Towards the Identification Of Cerebrovascular Disease Genes in South Asians', organised by Department of Neurology–DST–Royal Society, UK, 28 March 2015, AIIMS, (2) Inaugural Session, AIIMS Ultrasound Guided Regional Anaesthesia AURA Workshop', organized by Department of Anaesthesia, Pain Medicine and Critical Care, AIIMS, 28 March 2015, AIIMS, (3) Inaugural function, Workshop Cum Induction Training Program for Medical Record Technicians

(MRT), Junior MRO/MRO to improve medical record system including ICD 10 coding at Trauma Centre, 23 March 2015 (4) Concluding Session, 2nd Annual National Conference and Workshop of Medical Social Workers, Conference Hall, AIIMS, 20 March 2015, (5) Inaugural Session, Workshop on 'Indian extra-pulmonary TB (Index-TB guidelines, Expert Group Meeting on Guidelines Development, 16-20 March, 2015, AIIMS, Organised jointly by Department of Medicine, TB Division of Ministry of Health & FW and Cochrane India Group, (6) TELEMEDICON 2015, THE AIIMS RRC WORKSHOP, North Central Region Workshop For Sensitization & Awareness on National Medical College Network, jointly organized by MoHFW and AIIMS, 13-14 March 2015, (7), ENDOSURG 2015 and Pre-Conference CME, Organised by Department of Surgical Disciplines, AIIMS, 12-15 March 2015, (8) MEDIFEST 2015, Organised by the Indian Medical Association, Moradabad, 1 March 2015 (9) Inaugural Ceremony of the CME, Organised by Department of Surgical Disciplines, 27 February 2015, Conference Hall, AIIMS, (10) Awareness program on 'International Rare Disease Day' 28 February 2015, Organised by Department of Paediatrics, AIIMS and NGOs (11) Inaugural Session, Workshop on 'National Essential Medicines List Preparation', Organized jointly by MoHFW, and Department of Pharmacology, AIIMS, 18 February 2015; (12) Flag Off CanKids-AIIMS RUN for creating Awareness about Childhood Cancer, 15 February 2015, Organised Jointly by Resident Doctors Association and CanKids, (13) Inaugural Function, Establishment of Prof PN Tandon's epilepsy neurobiology lab under the aegis of COE epilepsy, funded by DBT (AIIMS-NBRC collaborated project), AIIMS, with the Help of National Brain Research Institute (NBRI) and Department of Biotechnology, Organised by Department of Neurosurgery, AIIMS, 12 February 2015, (14) Inaugural Function, South Asian Forum for Research (SAFAR), Organised by ICMR, 9 February 2015, New Delhi, (15) Celebrations on 8th Foundation Day of Establishment of IVF Program at AIIMS, Department of Obstetrics and Gynaecology, 8 February 2015, AIIMS, (16) Inaugural Function, Pulmocrit 2015, 31 January 2015, Organised by Department of Pulmonary Medicine, AIIMS, (17) National Conference of Society of Endoscopic and Laparoscopic Surgeons of India, Ludhiana 23-27 January 2015, (18) Inaugural Function, Pre-Conference Joint AIIMS-OSU (Ohio State University) Workshop on Regenerative Medicine, AIIMS, 12 January 2015, (19) Inaugural Function, 47th Annual Conference of Indian Dietetic Association (IDA), 21 December 2014, AIIMS, (20) Inaugural Function of a Workshop to create awareness about Aging: Gray Tsunami, at Vigyan Bhawan, New Delhi, 21 December 2014, (21) Inaugural Function of the XII Asian Congress of Pediatric Nephrology, International Paediatric Nephrology Association and Indian Society of Pediatric Nephrology, Organised by Department of Pediatrics, 4 December 2014, AIIMS, (22) Inaugural Function, 2nd International Congress on Micronutrients and Child health, 3 November 2014, AIIMS, (23) 8th Annual Day Celebrations, Shri Venkateshwar International School, Dwarkateshwar International School occasion of 8th tre, Lodhi Road, new Delhi. Of Kerala to shortlist 3 names for gnitude of the prDwarkateshwar International School occasion of 8th tre, Lodhi Road, new Delhi. Of Kerala to shortlist 3 names for gnitude of the prDwarkateshwar International School occasion of 8th tre, Lodhi Road, new Delhi. Of Kerala to shortlist 3 names for gnitude of the prDwarka, 2 November 2014, (24) Inaugural Function, National Seminar on Evolving Talent Landscape in Healthcare, 1 November 2014, Organised by Via Health Resources and Association of Healthcare Providers India, India Habitat Centre, New Delhi, (24) Inaugural Function, 2nd AIIMS Neurotrauma Conference, 31 October 2014, Department of Neurosurgery, AIIMS, (25) Inaugural Function, 3rd Annual Conference Laryngology and Voice Association of India, 18 October 2014, Postgraduate Institute, Dr. R M L Hospital, New Delhi, (26) Inaugural Function, CME: Vector Borne Diseases, 18 October 2014, Organized by Department of Medicine, AIIMS, (27) Inaugural Function, The Indian Ostomy Society, 12 October 2014, AIIMS, New Delhi, (28) Inaugural Function, Mental Health Foundation, Mental Health Day, 10 October 2014, Organised by Department of Psychiatry and NDDTC, AIIMS, (29) Inaugural Session, Childhood Neurodevelopmental Disorders Workshop 2014, Jointly Organised by MoHFW & Department of Pediatrics, AIIMS, 1 December 2014, India Habitat Centre, New Delhi, (30) Inaugural Function, 31st Annual Conference and Live Operative Workshop, North Zone Association of Surgeons of India, 21 November 2014, PGIMER, Chandigarh, (31) 46th Annual Day, Nursing College, AIIMS, 19 November 2014, (32) Inaugural AIIMS Breast Course (ABC), 18 November 2014, Department of Surgical Disciplines, AIIMS, (33) Inaugural Function, CME: Nutrition and Trauma, 17 October 2014, Organised by Department of Dietetics, AIIMS, (34) Inaugural Function, IVth AIIMS Annual Spine Surgery Workshop, 9 October 2014, Organized by Department of Neurosurgery, AIIMS, (35) Teachers Day Function, Organised by Resident Doctors Association to felicitate Faculty AIIMS, 5 September 2014, (36) Inaugural Function, Celebrate 29th 'Eye donation fortnight', Organised by National Eye Bank, RP Centre, AIIMS under National Program For Control and Prevention of Blindness, 2 September 2014, (37) Inaugural Ceremony, Workshop on Artificial Intelligence in Health care, Organised by DST and Department of Medicine, AIIMS, 23 August 2014, (38) Inaugural Ceremony, 7th National Conference of Indian Hernia Society (IHSCON 2014), 16-17 August 2014, Sunrise Hospital, Cochin, Kerala, (39) Inaugural Function, Faculty Mentoring

Workshop, CREST, Kerala, 13 August 2014, (40) Inaugural Function, AIIMS IHPBA HPB Workshop, 13–18 August 2014, Department of Gastrointestinal Surgery, AIIMS, (41) Inaugural Function, 6th Armaan Dogra Memorial Swimming Meet for Children, 9 August 2014, Swimming Pool AIIMS, (42) Induction Ceremony, 3rd Batch of MBBS, Hamdard Institute of Medical Sciences and Research, New Delhi, 4 August 2014, (43) Induction Ceremony, DM and MCh students, Institute of Liver and Biliary Sciences, New Delhi, 1 August 2014, (44) Award Ceremony of the Class VI, VII and VIII Meritorious Students and Prize distribution, Fr. Agnel School, Gautam Nagar, New Delhi, 25 July 2014, (45) Valedictory function, 14th Batch, Certificate Course on Health Promotion Through Ayurveda and Yoga, Indian Red Cross Society (IRCS), at Disaster Management Centre, IRCS (NHQ), 17 June 2014, (46) Inaugural Function, The lingual orthodontic summit, Orthodontic Study Group of Delhi, Indian Orthodontic Association, Organised by Centre For Dental Education and Research (CDER), 10 May 2014, AIIMS, (47) Inaugural Function, Workshop on Collaboration on Disease Diagnostic System (CollabDDS) in Collaboration with National Knowledge Network (NKN) and National Informatic Centre (NIC), 21–22 April 2014, AIIMS, (48) 16th Professor Raman Viswanathan–VPCI Oration, 65th Foundation Day Celebration, Valabhbhai Patel Chest Institute, University of Delhi, 6 April 2014, (49) 3rd International Conference on Recent Advances in Anaesthesia, 6 April 2014, Organised by Department of Anaesthesia, AIIMS, (50) CanKids–Kailash Kher Concert, Thyagaraj Stadium, 4 April 2014, for Creating Awareness and Raising Funds for CanKids to support Children with Cancer and their Families across India, (51) Public Awareness Panel Discussion on the WHO Theme of 2014, ‘Small Bite–Big Threat’, Centre for Community Medicine Medicine and Disease Prevention & Outbreak Response Cell, Health Education Lecture for Public–10 (HELP–10) on Vector Borne Diseases, 4 April, 2014, AIIMS, (52) Inaugural ceremony, AGRALAPCON 2014, 4 October 2014, Agra; **Guest of Honour:** (1) Rheumatology Update 2015, Delhi Rheumatology Association, 15 February 2015, AIIMS, New Delhi, (2) Inaugural Function, EndoLap 2014, 7 February 2015, Organised by the Department of Surgery, MAMC, Delhi, (3) Inaugural Function, 73rd Annual Conference of Indian Ophthalmic Society, 6 February 2015, Chanakyapuri, New Delhi, Inaugural Function, Workshop cum Expert Group Meeting to develop Guidelines for Extrapulmonary Tuberculosis (EPTB), Organised by the Department of Medicine, AIIMS in Collaboration with Central TB Division, MoHFW, 27 November 2014, (4) Inaugural Function, Seminar on Illness to Wellness, Organised by ASSOCHAM, 18 November 2014, (5) Inaugural Function, Asia Pacific Association for Medical Informatics (APAMI) and International Medical Informatics Association (IMIA), 31 October 2014, Organised by Indian Section APAMI, AIIMS, (6) Inaugural function, International Conference of Cost Effective use of Technology for Emergency Healthcare (CEUTECH 2014), Organised by Information Technology Division, Computer Facility, 4 September 2014, (7) Inaugural Function, 17th Annual Conference of Indian Society of Neuroradiology, Department of Neuroradiology, AIIMS, 9 October 2014, (8) Valedictory Function, Conference on Stress Reduction Skills: Scientific Update, Organised by Sri Sri Global Meditating Doctors Association (Sri Sri GMDA) and Department of Psychiatry, AIIMS, 31 August 2014, (9) Inaugural function, 5th Annual Conference and Hands-On Workshop of Cardiac Anaesthesia and Launch of World Simulation Society, 31 August 2014, Department of Cardiac Anaesthesia, New Delhi, (10) Inaugural function, 2nd Neuroanaesthesia Update 2014, Department of Neuroanaesthesia, 30 August 2014, AIIMS, (11) Inaugural function, 4th Live Operative Workshop on Complex Spine Injuries, 11 May 2014, Department of Neurosurgery, AIIMS, New Delhi, (12) Inaugural function, Foundation day 2014, AIIMS, Bhubaneshwar, 15 July 2014, (13) Inaugural function, 5th International Conference of Asia-Oceania Pancreas Association, 18 April 2014, Organised by Indian Pancreas Club, Indian Society of Gastroenterology, Gastroenterology Research & Education Society, Department of Gastroenterology, AIIMS; **Flagged off** ‘Terry Fox run by 1000 school children’ to create awareness about childhood cancer, Organised by Terry Fox Foundation, India and Doon School, Dehradun, 14 April 2014; **Participated** during a ‘HIV and Cancer Symposium’, 25 March 2015, Department of Medicine, AIIMS and UCLA, USA; **Delivered Inaugural address** during ‘World TB Day Symposium 2015: Mapping the Missing Millions’, 23 March 2015, organized by TB Lab, Department of Microbiology AIIMS; **Delivered Key Note** (1) on Emerging Role of Laparoscopy in Surgical Oncology, Mid-Term National Conference of Indian Association of Surgical Oncology (IASO 2015), AIIMS, Bhopal, 21–22 March 2015, (2) Laparoscopic Adrenalectomy: Gold Standard of Current Millennium, 7 February 2015, Organised by the Department of Surgery, MAMC, Delhi, (3) Training in Laparoscopic Surgery, 24 January 2015, National Conference of Society of Endoscopic and Laparoscopic Surgeons of India, Ludhiana, 23–27 January 2015, (4) Academic Health Care in India: Opportunities to Partner, Inaugural Function, H3C Health Sciences Innovation Conference, hosted by Ohio State University, USA, Mumbai, 15 January 2015, (5) Challenges in Computerisation in Government Hospitals, 5 September 2014, International Conference of Cost Effective use of Technology for Emergency Healthcare (CEUTECH 2014), Organised by Information Technology Division, Computer Facility, (6) Trauma: An Epidemic of the 21st Century Approach to Trauma Care:

National Perspective, Foundation day 2014, AIIMS, Bhubaneshwar, 15 July 2014; **Convener**: (1) Australia India Trauma Systems Collaboration (AITSC) Project-Data Quality workshop and the AAAM AIS coding certificate course, 17–19 March 2015, Simulation Facility, JPN Apex Trauma Centre, AIIMS, (2) Convener AIIMS–University of Michigan Research Methods Course, 1–5 December 2014, AIIMS, (3) Mega Blood Donation Camp at JPN Apex Trauma Centre in Collaboration with CRPF. 774 CRPF Officers and Jawans donated blood and also pledged their Organs for Donations, Creating Awareness about both Blood Donation and Organ Donation. The Blood Donation camp was inaugurated by the Minister for Health and family Welfare, Govt. of India, 14 November 2014; **Conceived and Organised** an Awareness Program on Organ Donation day, 6 August 2014, for creating awareness about bone marrow transplant through ‘Asian Indian Bone Marrow Donor Registry’ at AIIMS, New Delhi. Union Minister of Health and family Welfare, Govt. of India, launched the Website for the purpose; **Presided** over (1) Public Lecture and Panel Discussion on ‘Childhood Cancer is Treatable and Curable’, on the Occasion of ‘World Childhood Cancer Day’, Organised by Department Of Paediatrics, Paediatric Oncology, Dr. BRAIRCH and CanKids, 14 February 2015, AIIMS, (2) 1st P.N. Tandon Oration by Prof. Kenji Ohata, Japan on ‘The Surgery of Craniopharyngioma’, 14 February 2015, Organised by Department of Neurosurgery, AIIMS, (3) Sarveshwari Memorial Oration by Prof. William Couldwell, USA on ‘The Evolution Of Skull base Surgery’, 13 February 2015, Organised by Department of Neurosurgery, AIIMS; **Chaired Meeting** with Mr J Margolis, US Dy Asstt Secy (Science, Space and Health) to discuss global problem of antimicrobial resistance (AMR), 15 November 2014, AIIMS; of Authorization Committee for unrelated Kidney transplantation, 26 March 2015; Project Review Committee Meeting on Trauma at ICMR, 2 December 2014; Program on World day of Remembrance for Road Crash Victims, 16 November 2014, Organised by the Institute of Road Traffic Education (IRTE), Faridabad, Haryana; **Course Director**, 143rd Training Courses in Basic and Advanced laparoscopy, 23–27 February 2015; 142nd Training Course in Advanced laparoscopy, Laparoscopic Colorectal Surgery, 10–12 February 2015; 141st Training Course in Advanced Laparoscopy Suturing and 37th Course on Laparoscopic hernia repair, 27–29 January 2015; 140th Training Course in Basic and Advanced laparoscopy, 2–6 February 2015; 139th Training Course in Basic and Advanced laparoscopy, 5–9 January 2015; 138th Training Course in Advanced laparoscopy Suturing and 36th Course on Laparoscopic hernia Repair, 17–19 December 2014; 137th Training Course in Advanced laparoscopy Suturing and 35th Course on Laparoscopic hernia Repair, 9–11 December 2014; 136th Training Course in Basic and Advanced laparoscopy, 1–5 December 2014; 135th Training Course in Basic and Advanced laparoscopy, 24–28 November 2014; 134th Training Course in Basic and Advanced laparoscopy, 10–14 November 2014; 133rd Training Course in Basic and Advanced laparoscopy, 6–10 October 2014; 132nd Training Course in Laparoscopic Suturing and Knotting, 1–3 September 2014; 131st Training Course in Basic and Advanced laparoscopy, 18–22 August 2014; 130th Training Course in Advanced laparoscopy, Laparoscopic Colo-rectal Surgery, 11–13 August 2014; 129th Training Course in Basic and Advanced laparoscopy, 4–8 August 2014; 128th Training Course in Advanced laparoscopy Suturing and 34th Course on Laparoscopic hernia Repair, 30 July–1 August 2014; 127th Training Course in Basic and Advanced laparoscopy, 21–25 July 2014; 126th Training Course in Advanced laparoscopy Suturing and 33rd Course on Laparoscopic hernia Repair, 26–28 May 2014; 125th Training Course in Basic and Advanced laparoscopy, 5–9 May 2014; 124th Training Course in Advanced laparoscopy Suturing and 32nd Course on Laparoscopic hernia Repair for Indian Surgeons, 29 April–1 May 2014; 123rd Training Course in Basic and Advanced laparoscopy, 21–25 April 2014; all courses for Indian Surgeons and at the Minimally Invasive Training Centre, Department of Surgical Disciplines, AIIMS, New Delhi; **Panelist** during Panel Discussion at ‘AIIMS-DBT Brain Storming Symposium on Challenges in Tuberculosis Management’, Organised by Division Of Clinical Microbiology & Molecular Medicine & Department of Biotechnology, Government of India, World TB Day, 24 March 2015, AIIMS (2) Panel Discussion on Surgical Training, Laparoscopic Incisional hernia Repair and Morbid Obesity, ENDOSURG 2015, 13-14 March 2015, AIIMS, (3) Live Panel Discussion, Delhi as a Smart City and Healthcare, Organised by CNBC Awaaz, 31 January 2015, New Delhi, (4) How do we ensure that our design for Health is not in intervention silos, but linked up in a way that is preventive and promotive rather than solely curative during ‘India health & wellness summit and awards 2014’, Organised by HealthyDunias.Com, New Delhi, 20 December 2014; (5) International conference on Road safety scenario in India and way forward, 30 November 2014, Vigyan Bhavan, Delhi; (6) Panel Discussion on Road Safety and Rehabilitation, Inaugural Day of Trauma 2014: International Conference Cum Workshop and 7th Annual Conference of Indian Society of Trauma and Acute care (ISTAC), 28–30 November 2014, AIIMS, New Delhi, (7) Training Course on Leadership Development in the Health Sector, 11-14 November 2014, National Institute of Health and Family Welfare, New Delhi, (8) FICCI Heal 2014 ‘Innovation Enabling Success’ during panel discussion on ‘Theme Spotlight - CEO’s Panel’ 1 September 2014, FICCI Auditorium, (9) BRICS and Global Health summit,

Organised by WHO, 23 June 2014, New Delhi; Interactive Session and Presentation on Cancer Prevention and Healthy Living and Injury Prevention with Students of DOON School, Dehradun, 14th April 2014; **Expert/Technical Expert** (1) Centre For Science and Environment (CSE) Round Table Discussion on ‘Our Safe Right of Way’, India Habitat Centre, New Delhi, 23 June 2014 (2) Program ‘Cost of healthcare and poor section of society’, Doordarshan TV, 29 May 2014, for program titled ‘Amne Samne’, (3) Live Telecast Program ‘Healthcare Challenges for the New Government’, Lok Sabha TV, 23 May 2014, for program titled ‘Lok Manch’, (4) Live Telecast Program ‘Unethical healthcare practices’, Lok Sabha TV, 22 April 2014, (5) Discussion on ‘Head Injury Prevention by Helmet Use and Basic Life Support’, Live Phone in program ‘Good Evening India’, DD National, New Delhi, 10 February 2015, (6) Discussion on ‘Prevention and treatment of stones in human organs’, Live Phone in program ‘Good Evening India’, DD National, New Delhi, 20 January 2015, (7) Discussion on ‘Trust deficit between patient and doctors’ Live Phone in program ‘Total Health’, DD News, 18 January 2015, (8) Discussion on ‘Budgetary allocation for Healthcare in the Upcoming Federal budget’, Live News program, DD News, 16 January 2015, (9) Discussion on ‘Harmful effects of Alcohol consumption’ Live Phone program ‘Total Health’ DD News, 28 December 2014, (10) Discuss ‘Encephalitis and the Initiatives of the Government’, Live Telecast Program ‘Lok Manch’, Lok Sabha TV, 22 December 2014, (11) Discuss ‘Deaths following sterilization procedures in Chhattisgarh’, Live Telecast Program ‘INSIGHT’, Lok Sabha TV, 13 November 2014, DD English News and DD Hindi News, 13 November 2014, (12) ‘Road traffic injuries and medical emergencies’, Lok Sabha TV, 1 November 2014, (13) Discuss ‘Problem of Ebola Virus in India in context of Epidemic in African Countries’, Live Telecast Program ‘INSIGHT’ Lok Sabha TV, 16 October 2014, (14) Discuss about ‘Ebola Virus Epidemic’, Global Perspective and Threat to India and preparedness, ETV Urdu News Channel, 15 October 2014, (15) Discuss ‘Problem of Encephalitis’, Live Telecast Program Lok Manch, Lok Sabha TV, 4 August 2014, (16) Discussion on ‘Malpractice in the form Commission to Doctors by various Laboratories and Imaging Centres’, DD News, 23 July 2014, (17) Live debate on ‘Euthanasia’, Lok Sabha TV, 18 July 2014, (18) ‘Budget 2014 for Healthcare Sector’, DD News, Live discussion, 10 July 2014, (19) ‘Budget 2014 for Healthcare Sector’, Lok Sabha TV, Live discussion, 10 July 2014, (20) ‘Road Traffic Injuries’, Lok Sabha TV, 10 May 2014, (21) ‘Unethical Healthcare Practices’, Lok Sabha TV, 22 April 2014, (22) Program titled ‘Total Health: Topic Ethics in Medical and Healthcare Advertising’, DD News, 6 April 2014.

Adarsh Kumar was Awarded Commonwealth Academic Fellowship in Forensic anthropology at CAHId, University of Dundee, Scotland UK for a period of 3 months (12 Jan-11 April). Delivered Guest Lecture at Anglia Ruskin University, Cambridge, UK on ‘Honour Killing- myths and realities’ on 9th March 2015. Delivered Guest Lecture at Scottish Students Forensic Research Symposium at University of Dundee, Scotland, UK on ‘Fatal Tiger Attack on a man obsessed with tigers-’ on 27th March 2015. Awarded Commendation Certificate by National Human Rights Commission of India on 12th October 2014 on occasion of its foundation day in view of exemplary services by imparting valuable scientific opinions in complicated medicolegal issues pertaining to Custodial Death Investigation and advising in many policy matters. Nominated Board Member representing Asia in ‘International Association of Personal Injury’ for period 2012-14 under presidency of Dr Haluk Ince, Turkey. Vice President, NACPFMT (Noble Action Consortium for Progressive Forensic Medicine & Toxicology) for 2014. ‘EUROSCICON-2015 Forensic Forum’ on 10th-12th Mar, 2015 at London, UK. Chaired the session on Forensic Anthropology. Member Editorial Board of various journals- International Editorial Board Member- Romanian Journal of Legal Medicine. Associate Editor-Medicolegal Update, Journal of Research in Medical Education and Ethics. Web Editor- International Journal of Health Research & Medicolegal Practice. Member Editorial Board- Journal of Indian Society of Toxicology. Journal of Punjab Academy of Forensic Medicine & Toxicology, Journal of South India Medicolegal Association, Indian Journal of Community & Family Medicine

Amit Gupta was Awarded the **Distinguished Invited Lecturer award**: Annual Scientific Congress of the Royal Australasian College of Surgeons, Singapore–2014; Selected as Regular Member: H-1 Committee: Transport Planning, Traffic Engineering of the Indian Roads Congress 2015-17 (3 years); Member: Ministry of Health and Family welfare Expert committee to do the medical needs assessment in Nepal in the aftermath of the April 2015 earthquake; Member: Technical sub-committee members for developing National Trauma System Plan, Dte. General of Health Services, MoHFW, Govt. of India; External Examiner: MBBS Final Surgery Practical Examination, King Georges Medical University, Lucknow, India. 23-26th February 2015; External examiner: MS (General Surgery) Examination of the University of Delhi held at University college of Medical Sciences on 22nd, 23rd and 24th April 2014; External examiner: MS (General Surgery) Practical Examination, Era’s Lucknow Medical College & Hospitals, Dr. R.M.L. Avadh University, Faizabad, U.P., India – 2014; Spokesperson, All India Institute of Medical Sciences; Member Secretary: Engineering Advisory Committee, AIIMS; Member: Committee for Institute Intra-mural Grant,

Research Section, AIIMS; Member Secretary: Horticulture Committee, AIIMS; Chairman: Store Purchase Committee, JPNATC, AIIMS; Co-Chairman: Committee to oversee the Phase-II construction of JPNATC, AIIMS; Faculty In-Charge: Trauma Registry, Trauma Nurse Co-ordinator System and Quality Improvement, JPNATC, AIIMS; Faculty In Charge: Sanitation and Transport, JPNATC, AIIMS.

Arulselvi S received best paper award for co-authoring the study titled 'RANTES (Regulated upon Activation, Normal T cell Expressed, and Secreted) levels in plasma, cerebrospinal fluid and contused brain tissues as a marker of immune activation in Traumatic Brain Injury (TBI) patients' at 2nd AIIMS NEUROTRAUMA CONFERENCE. Received best poster award for co-authoring the study titled 'Evaluation of the Utility of Thromboelastography in a Tertiary Trauma Care Centre' at 'Trauma 2014 International congress & seventh annual conference of ISTAC, held in Jawaharlal Nehru auditorium, AIIMS, New Delhi. Assistant Editor for Journal of lab physicians. Reviewer of Journal of lab physicians (JLP). Reviewer of Indian Journal of Orthopedics (IJO). Been a research advisory committee member for ICMR and DBT funded projects. Member of the JPNATC, AIIMS Store purchase committee etc

Biplab Mishra was Faculty-in charge, Security services, JPNATC. Member Secretary, Gymkhana Committee, AIIMS.

Chhavi Sawhney was Member of National Curriculum Task force for various allied health services (ministry of health and family welfare)

Deepak Agrawal was Awarded the prestigious 'Tata Innovation Fellowship' by DBT for a 3 year period wef 2013 of Rs 22.5 lakhs. Awarded first prize for co-authoring the study titled 'Regulated upon Activation, Normal T cell Expressed and Secreted levels in plasma cerebrospinal fluid and contused brain tissues as a marker of immune activation in Traumatic Brain Injury(TBI) patients' at ANTC in AIIMS, New Delhi. Awarded the best IT project in healthcare-2014 by eIndia at The Leela Kovalam, Trivandrum on 15th November 2014. Awarded the Golden Peacock Innovative Product/Service Award - 2014 for Computerisation of AIIMS, New Delhi by the Golden Peacock Awards Secretariat on 23rd May 2014. Declared winner for Maharashtra Healthcare Leadership 2014 in the category 'Innovative & extremely cost-effective use of ICT for Hospital' on 11 July 2014 at Pune

Deepak Gupta was invited by NIH/NINDS (National Institutes of Health, USA) to participate in National neurotrauma Preconference Investigator meeting of InTBIR (International initiatives in neurotrauma research in TBI), 3rd International Traumatic Brain Injury Research (InTBIR) Meeting June 28-29, 2014, San Francisco, USA. Selected by NIH/NINDS and European High Commission to begin CINTER TBI (Collaborative Indian Neurotrauma Effectiveness research in Traumatic brain injury) under aegis of CENTRE –TBI and to start Neurotrauma registry in India. Organised Cadaveric Hands on workshop on Endoscopic Odontoidectomy, MISS, Neurocritical care workshops in Craniospinal trauma (30 October 2014). Organised 2nd ANTC 2014 Conference, AIIMS, Delhi (31 October–2 November 2014). Organised Head injury Awareness week activities in Delhi/NCR, Public awareness lectures on Prevention of Head injury and carried out Educational head injury awareness campaign in various Delhi and NCR schools covering over 50000 children in Head injury prevention week (October–November 2014). Selected as Honourary Secretary of Delhi Neurological Association (2015-2018).

Garima Kachhwaha was Delhi Gynae Endocrine Society- Secretary, 2014-2016; 4th National Conference of Gynae Endocrinology (GESICON) 2014, The Annual conference of the Gynae Endocrine Society of India was organized by the department on 25-27 April 2014 at Hotel Grand, New Delhi and pre-congress workshops at AIIMS. (**Jt Treasurer**); IAGE MISCON 2014, Annual conference of the Indian Association of Gynaecological Endoscopists was organized by the department on 28-30 August 2014, New Delhi and pre-congress workshops at AIIMS. (**Organising Secretary**)

Kapil D Soni was involved in Development of AIIMS critical care course for surgeon. Member of Core Consensus Committee for AIIMS Critical Care Course. This is totally indigenously designed and developed course and aims at patient care in surgical wards and HDU's. Successfully conducted two courses on 25-26 Nov 2014 and 1-2 Dec 2015 in JPNATC, AIIMS. Development of ICU Protocol Manual

Keshav Goyal was awarded *Young Talent Hunt Award 2015* by the Indian Society of Critical Care Medicine at its annual conference CRITICARE 2015 held at Bangalore, Karnataka. Member of core consensus committee of AIIMS Critical Care Course (ACCC) for surgeons. Introductory course in November 2014 at JPNATC, New Delhi. Successfully passed BLS and advanced cardiac life support course (ACLS) *provider course* held at MAMC, from 18-20th September 2014. Successfully passed BLS and advanced cardiac life support course (ACLS)

Instructor course held at MAMC, 18-20 September 2014. Course director of BECC 2014 November at JPNATC, New Delhi. Member of organizing committee of TRAUMACON 2014. Co-organizing Secretary of Neuroanaesthesia Update 2014.

Maneesh Singhal was Member Ethic Committee. Animal Ethic Committee. Post Graduate ethic Committee. Stem cell ethic Committee. Member core group Indian national burn registry. Member DM/Mch guideline. Member of Indian Red Cross group. Member of Day Calibration. Member of annual day celebration. Organizing secretary Michigan, research collaboration. Organizing secretary, Trauma 2014. Piloting the Indian National Burn Registry. Member of the editorial board of *Advances in Wound Care*; IEC activities for Capacity building of trauma care facilities in govt. Hospitals on national highways. Member selection of Junior Resident (Non Academic) for recruitment drive against the vacant post for the session July'2014 to be held on 27.10.2014. Member of Swedish committee at AIIMS Trauma Centre 29th October 2014. Member for the selection of contractual faculty in the Department of Surgery will be held on 21st November 2014 in the office of the Director, LHMC & Associated Hospitals, New Delhi. Editorial Board Member of *International Journal of Orthopedics*. Guide in thesis 'Investigation of clinical types, hormonal profile and treatment outcomes in patients with gynecomastia'. Member of the expert panel of the India First Aid Guidelines. Awards, Prizes & Honors: 1

Navdeep Sokhal was involved in development of AIIMS critical care course for surgeon: Member of Core Consensus Committee for AIIMS Critical Care Course. This is totally indigenously designed and developed course and aims at patient care in surgical wards and HDU's. This will help us in decreasing Morbidity and Mortality and improved patient satisfaction during their hospital stay. successfully conducted two courses on 25-26 Nov 2014 and 1-2 Dec 2015 in JPNATC, AIIMS.

Niraj Kumar gave CPR training to various paramilitary forces. Made MCQs for various entrance examinations conducted by AIIMS. Went to various part of India to as faculty in charge for MBBS/MD/MS entrance examination conducted by AIIMS. Participated as faculty in various workshops held in JPNATC, AIIMS.

Purva Mathur received the following best paper awards: Awarded First prize in poster presentation, XIII national conference of the hospital infection society-India, 21-24 March, 2015, New Delhi. Awarded First prize in oral presentation, XIII national conference of the hospital infection society-India, 21-24 March 2015, New Delhi. Awarded scholarship by IFIC HISICON, XIII national conference of the hospital infection society-India, 21-24 March, 2015, New Delhi. Awarded 3rd Prize in poster, HISI- Delhi and NCR Chapter Meet-2014, 13th December 2014, India Habitat Centre, New Delhi. Awarded 2nd Prize in poster, HISI- Delhi and NCR Chapter Meet-2014, 13th December 2014, India Habitat Centre, New Delhi. Awarded 1st Prize in poster, HISI-Delhi and NCR Chapter Meet-2014, 13th December 2014, India Habitat Centre, New Delhi. Awarded 2nd Prize in free paper, International Congress, CME cum live Workshop and Seventh Annual conference of the Indian society for trauma and Acute Care, 27-30 November 2014, AIIMS, New Delhi.

Sachin Borkar was awarded International Group for Advancement of Spinal sciences (IGASS) Spine fellowship at Guy's & St. Thomas Hospital, NHS Foundation Trust, London UK. Awarded membership of National Academy of Medical Sciences(NAMS)

Sanjeev Bhoi received best oral award for co-authoring the study titled 'Monocyte Chemoattractant Protein-1 is a prognostic marker following trauma hemorrhagic shock' at 'Trauma 2014 International congress & seventh annual conference of ISTAC, held in Jawaharlal Nehru auditorium, AIIMS. Facilitated by president BARACK OBAMA, during the Jan. 2015 visit in India. Assistant Editor for *Journal of Emergency Trauma and Shock*. Member of the JPNATC, Addl. Medical Superintendent, In-charge Department of Emergency Medicine, In-charge Medical Record Section, Member of Space committee etc

Shilpa Sharma was Nominated as Executive Committee member of International Society of Hypospadias and Intersex Disorders (ISHID) 2013-2015. Nominated as Editorial Board member of *International Journal- Pediatric Surgery International* in 2014. Secretary of Research Section of Indian Association of Pediatric Surgery 2013-2015.

Subodh Kumar was awarded prestigious 'International Guest Scholarship' of American College of Surgeons, USA 2014. Awarded Membership of National Academy of Medical sciences (MNAMS) 2014. Member Expert committee nominated by Ministry of Health & Family Welfare, Govt. of India for upcoming Trauma center at IMS, BHU, Varanasi under PMSSY. Member Expert committee nominated by Govt. of Himachal Pradesh for upcoming Trauma centers at KULLU and BILASPUR, Himachal Pradesh. Member Core committee for

development of 'National Disability Rehabilitation & Research Network' (NDRRN) project of ICMR. Member Expert committee of National Medical College Network (NMCN) project of Ministry of Health & Family Welfare, Govt. of India.

Sushma Sagar was Co-editor Journal of Society of Wound Care and Research. Faculty Incharge and Member Secretary Cafeteria AIIMS. Faculty Incharge Physiotherapy Unit at JPNATC, AIIMS. Faculty Incharge Laundry and CSSD, JPNATC. Member Women Grievance cell committee, AIIMS. Scientific Chair Trauma 2014 International CME and conference of Trauma and Acute care. Organized Symposium on various aspects & issues for Amputees: Road Ahead. Convener PG Update, Endosurg 2015, held at AIIMS. Core faculty member National Institute of Disaster Management, India. External examiner for MBBS Final Professionals at Army Medical College, Delhi

Sumit Sinha was Member of the World Federation of Neurological Societies- Peripheral Nerve Section; Awarded the AANS International travel scholarship conferred for the abstract selected as the best abstract at the 82nd Annual meeting of Neurological surgeons society held at San Francisco in April 2014. AANS International travel scholarship conferred for the abstract selected as the best abstract at the 82nd Annual meeting of Neurological surgeons society held at San Francisco in April 2014. A part of the core committee for formulation of guidelines for the management of traumatic brain injury in India. Executive committee member of Neurotrauma society of India. Member of the AIIMS Committee for finalizing the list of essential drugs/ medicine/ surgical items, sponsored by Asoka mission. Part of the DGHS, Govt. of India advisory committee for standard treatment guidelines for the use of medical practitioners in both public and private sector for provision of proper health care. Associate Editor, Indian Journal of Neurotrauma. Associate Editor, Indian Journal of Neurosurgery. Member of the World federation of Neurological Societies- Peripheral nerve section. Key member of the core committee of TBI guidelines formulation and implementation across the country and the first phase of formulating the guidelines has been accomplished. The second phase is to identify the pilot centers across the country (Level I to level V) and implement these guidelines across these pilot test centers. The data from these centers will then be analysed and validation of the guidelines will be done by assessing any improvement in TBI care. These validated guidelines will then be presented to the Ministry of Health, Government of India for final implementation across all the hospitals in India.

Vivek Trikha won Best Publication Award >40 yrs Delhi Orthopaedic Association 2014-15. Best Paper Award >40 Yrs Delhi Orthopaedic Association 2014-15

Vijay Sharma was awarded prestigious AO Trauma international Fellowship at Aachen Germany from 1st Sep to 10th Oct 2014. Part of Indian USAR Medical Team. Faculty AO for its basic, Pelvic and acetabulum and MIPPO Courses. Faculty ATLS and take lectures in its courses. Director BECC BLS Course AIIMS. External Examiner for BPT Course at Rohtak. Workshop Director for Proximal Humeral Plate Fixation and Distal Tibia Plate Fixation NZIOACON Rohtak 13th February 2015. Letter of appreciation from Indian Hockey Team and Indian Veteran Table Tennis Federation. Part of Charitable camp for villagers by NGO Udaan at Amroha on 25th January 2015

VISITING SCIENTIST

Sanjeev Bhoi

- WHO consultant or development of Accident & Emergency, Ministry of Health, Srilanka.
- Director, Board of Directors, 'World association for disaster and Emergency Medicine' (WADEM) USA.

10.6 National Drug Dependence Treatment Centre

Professor and Chief

S. K. Khandelwal

Professors

Raka Jain

Rakesh Lal

Anju Dhawan

Additional Professors

Sonali Jhanjee

Atul Ambekar

Assistant Professors

Yatan Pal Singh Balhara

Gauri Shanker Kaloiya

Ravindra Rao

Ashwani K. Mishra

Prabhu Dayal

Jai Singh Yadav

Rachna Bhargav

Alok Agrawal

Biswadip Chatterjee

Rizwana Quraishi

Scientists

Anita Chopra

Hem Sethi

Medical Social Service Officers

Braham Prakash

Deepak Yadav

Ratnesh Kumar

HIGHLIGHTS

The work carried out by National Drug Dependence Treatment Centre (NDDTC) has been the area of capacity building, research including that on developing treatment models, as well as in the area of policy and planning. It is important to give a little background about NDDTC to illustrate its achievements. NDDTC is a National Resource Centre and has been designated as the Regional Learning Centre (UNODC) and a WHO collaborating Centre. The clinical services include outpatient clinics, three speciality clinics namely Adolescent Drug Abuse Clinic, Tobacco Cessation Clinic and Dual Diagnosis Clinic. It has a 50 bedded ward and also runs two community clinics in East Delhi. The major achievements in the last year have been as follows. The public health initiatives of the centre include the initiation of a project on Strengthening of Drug dependence treatment services in the government hospitals through setting up of Drug Treatment Clinics and provision of staff and medicines. This is being done in a phased manner and is an important step towards the provision of drug dependence treatment services in the country. NDDTC faculty has contributed as members of international associations such as World Psychiatric Association (WPA), Technical expert groups for WHO- SEARO, Technical Resource Group on IDU of NACO, National Technical Advisory Group Alcohol Control among others.

EDUCATION

Undergraduate

MBBS students are posted for a day in the centre during their Psychiatry posting.

Postgraduate

Residents doing MD (Psychiatry) are posted in the centre for 6 months.

NDDTC also offers PhD in Addiction Psychiatry.

PhD and Postgraduate teaching

Weekly

Journal discussion

Seminar

Case Conference

Seminars (at NDDTC)

Faculty/Staff presentation* CCR and CGR two in every semester*

*Joint activities of the Department of Psychiatry and the Centre

Lectures delivered

Raka Jain: 1

Sonali Jhanjee: 2

Gauri Shanker Kaloiya: 6

Ashwani Kumar Mishra: 8

Alok Agrawal: 7

Rakesh Lal: 1

Atul Ambekar: 8

Ravindra Rao: 6

Jai Singh Yadav: 1

Biswadip Chatterjee: 8

Anju Dhawan: 15

Yatan Pal Singh Balhara: 13

Prabhoo Dayal: 3

Rachna Bhargava: 2

Oral papers/posters presented: 37

Won Bhagwat Award of Indian Psychiatric Society, Young Psychiatrist Award of Indian Psychiatric Society and Boral Award of IASP

RESEARCH

Funded projects

Ongoing

1. Effect of nalbuphine on opiate withdrawal in rats: Behavioural, Biochemical and Molecular study, Prof. Raka Jain Indian Council of Medical Research, 42 months, 2012-2015, INR 46 lakhs
2. Developing and testing an online training programme on implementing Opioid Substitution Therapy (OST), Dr. Atul Ambekar, Dr Ravindra Rao, Dr Alok Agrwal. Public Health Foundation of India, One, 2014-2015, INR 12,69,000/-
3. A comparative study of prevalence of metabolic syndrome among patients with Opioid and Alcohol Dependence Syndrome, Yatan Pal Singh Balhara, AIIMS, New Delhi, 1 year, 2013- 2014, INR 3.6 lakh
4. A cross-sectional study evaluating the socio-demographic and psychosocial profile and motivations for use for individuals with prescription opioid abuse, Yatan Pal Singh Balhara, ICMR, 15 months, 2014-2015, INR 15.8 lakh
5. A comparative study of status of reproductive and sexual health and prevalence of sexual dysfunction among young individuals with mental and substance use disorder related disability, Yatan Pal Singh Balhara, ICMR, 18 months, 2014-2016, INR 8.04 lakh

Completed

1. Community based brief Intervention vs simple advice for women tobacco users, Dr. Sonali Jhanjee, ICMR, One year and 3 months, 2013 – 2014, Rs 10,14,930/-
2. Post Marketing Surveillance of Methadone in India, Dr. Atul Ambekar, Rusan Pharmaceuticals, 2012-2014, 14,35,500/-
3. Translation, Validation of AUDIT and Brief Intervention Module for Alcohol and Substance Use Disorders, Yatan Pal Singh Balhara, WHO-SEARO, 2 months, 2014-2014, 4.53 lakh

Departmental projects

Ongoing

1. Assessment of biochemical and haematological profile of opioid dependent patients receiving, Buprenorphine Buprenorphine –naloxone combination
2. Assessment of effect of sweet tastants on cue related craving among recently detoxified alcohol dependent subjects (MD thesis)
3. Effectiveness of Screening and Brief Intervention For Moderate/High Risk Alcohol Use Among Patients On Buprenorphine Maintenance: A Clinical and Alcohol-Biomarker Study (MD thesis).
4. Platelets Monoamine Oxidase B activity levels and Cognitive functions in patients with alcohol Dependence: An exploratory study (MD thesis)
5. Effect of nalbuphine on opiate withdrawal in rats: Behavioural, Biochemical and Molecular study (Ph.D thesis).

6. A study on substance use, psychiatric morbidity and psychosocial factors in adolescents from observation homes and in treatment setting (MD thesis)
7. Effect of Nalbuphine on Opiate withdrawal in Rats: Behavioural, Biochemical and Molecular Study (PhD thesis)
8. Assessment of Biochemical Measures in Adolescent Inhalant Users (PhD thesis)
9. Comparative appraisal of data collection methods and related epidemiological models for smoking drinking and tobacco chewing among adolescent children in India (PhD thesis)
10. Effect of Apomorphine on Nicotine Withdrawal in Nicotine Dependent Rats: Behavioral, Biochemical & Molecular Study (PhD thesis)
11. Effectiveness of Smoking cessation intervention in opioid dependent subjects on agonist maintenance treatment
12. Tobacco use in opioid dependent patients on maintenance treatment
13. Assessment of substance use and factors associated with tobacco use in an urban women college: An exploratory study
14. A retrospective chart review of sociodemographic, clinical parameters and outcome in patients attending mobile clinic, NDDTC
15. A Cross-Sectional, Comparative Cost Analysis of Opioid Substitution Therapy and other harm reduction interventions for Injecting Drug Users (thesis – MD, Psychiatry)
16. Pattern of Drinking and Its Relationship with Consequences in Subjects with Harmful/Hazardous Alcohol Use – A Community Based Study (thesis– MD, Psychiatry)
17. Mental Illness, Substance Misuse and Quality of Life of Hijras(thesis– MD, Psychiatry)
18. Computer Assisted Cognitive Behavior Therapy For Adolescents With Depression (thesis– PhD, Clinical Psychology)
19. A prospective study assessing attitudes of medical under-graduates towards Psychiatry across successive training years
20. Lifetime trauma and stressful life events as related to anxiety and depressive symptoms among adolescents from developing countries
21. A naturalistic comparison of retention in treatment among young adults entering Naltrexone and Buprenorphine treatment for opioid dependence
22. Development of Home based intervention for Specific Learning Disorder
23. Assessment of Psychosocial factors in Substance-using Children who are in Conflict with law
24. Prefrontal Cortical Activity In Children With ADHD: A functional near infrared Spectroscopy(fNIRS) Study
25. Effect of repetitive transcranial magnetic stimulation on cognitive functioning in moderate traumatic brain injury
26. Neurochemical correlates of cognitive functions in patients with bipolar disorder in euthymic state
27. A Comparative evaluation based on clinical and laboratory profile of HIV screened positive and negative treatment-seekers from a tertiary care treatment centre: A retrospective chart analysis study.

Completed

1. Evaluation of compliance in patients receiving naltrexone for long term management of opioid dependence
2. Estimation of nicotine in urine samples spotted on filter paper in substance users
3. Cue Induced Craving In Adolescent Inhalant Users: A functional magnetic resonance imaging (fMRI) study (MD thesis)
4. Cue Induced Craving In Heroin Dependent Men (thesis–MD, Psychiatry)
5. Cue associated craving in treatment seeking alcohol dependent men (thesis–MD, Psychiatry)
6. Effect of intravenous naloxone in opioid dependent men on sublingual buprenorphine maintenance treatmentmen (thesis– MD, Psychiatry)

7. A Study Of Experience Related To Crime And Imprisonment Among Opioid Dependent Service Recipients In Community Drug Treatment Clinic
8. A study to assess prevalence of problematic internet use among undergraduates in a medical school in India
9. A comparative study of pathways to care among alcohol and opioid dependent individuals seeking help at a tertiary care centre and a community clinic
10. A urinalysis based evaluation of cannabis use among opioid dependent subjects maintained on buprenorphine: A retrospective study
11. A study on beliefs related to pharmacological treatment of opioid dependence among opioid dependent individuals seeking help at a tertiary care centre
12. A retrospective study of predictors of outcome among opioid dependents on Naltrexone treatment at a tertiary care substance use disorder treatment centre
13. A retrospective cohort study of assessment of risk factors associated with drop –out from and re-entry into in-patient and out-patient treatment at a tertiary care substance abuse
14. Psycho-social correlates of juvenile delinquents
15. Association of COMT (catechol-O-methyltransferase) polymorphism and comorbid alcohol and nicotine dependence among treatment seekers in India. A Pilot Study

Collaborative projects

Ongoing

1. A study on the genetic association and correlation of Monoaminergic, GABAergic and Glutamatergic pathway polymorphisms with brain imaging (PET/SPECT) in Alcohol Dependence, Dept of Anatomy, AIIMS, New Delhi
2. Estimation of the size of opioid dependent population in Punjab, Society for Promotion of Youth and Masses (SPYM) & Ministry of Social Justice and Empowerment (MSJE), Government of India, New Delhi
3. Anxiety Disorder amongst adolescents in rural Ballabgarh-A Community based study
4. Centre for Community Medicine (CCM), AIIMS, New Delhi
5. Comparative appraisal of data collection methods and related epidemiological models for smoking, drinking and tobacco chewing among adolescent children in India, Department of Biostatistics, AIIMS, New Delhi
6. Magnitude of psychiatric comorbidity in patients with obesity in a tertiary care centre

Completed

1. Methadone maintenance treatment: a feasibility and effectiveness study funded by – UNODC (ROSA)
2. KEM Hospital Mumbai, RIMS Imphal, Civil hospital Kapurthala, Civil hospital Bathinda
3. Training of GDMOs in Substance Use Disorder funded by NFCDA, KEM Hospital Mumbai, RIMS Imphal, NIMHANS Bangalore, CIP Ranchi, Chandigarh Medical College
4. A study to assess subjective distress, family burden and quality of life among primary care givers of children (0-5 years) affected with Epidermolysis Bullosa (EB) in comparison to Congenital Ichthyosis with a view to develop a psycho-dermatological education package for EB care givers and to assess its short-term effectiveness, College of Nursing and Dept of Dermatology, AIIMS, New Delhi
5. Drug Use Pattern Assessment of clients receiving Targeted Interventions for IDUs in Bihar, Haryana, Jammu and Uttarakhand, India HIV/AIDS Alliance and National AIDS Control Organization (NACO), New Delhi
6. Feasibility and Effectiveness of Methadone Maintenance Treatment in India, United Nations Office on Drugs and Crime, New Delhi
7. Study on Depression among Elderly Persons in Rural Area of Ballabgarh, Centre for Community Medicine (CCM), AIIMS

PUBLICATIONS

Journals: 45

Abstracts: 24

Chapters in books: 8

Books: 5

PATIENT CARE

OPD LOCATION	NUMBER OF NEW CASES
NDDTC, Ghaziabad	4,233
Trilokpuri community clinic	178
Sundar Nagri clinic (methadone)	90
Sundar Nagri clinic (mobile clinic)	76
TOTAL	4,577

Geographical distribution of new cases visiting NDDTC OPD: 4,233

Delhi:	1,398	Uttar Pradesh:	2,546	Haryana:	130
Punjab:	33	Rajasthan:	13	Bihar:	24
Other states:	89				

Age and Gender Distribution of new cases

Age group (years)	Male	Female	Total
14-18	205	5	210
19-20	178	2	180
21-25	713	11	724
26-30	758	15	773
>30	2,291	55	2,346
TOTAL	4,145	88	4,233

Old Cases/Follow Up

OPD LOCATION	NUMBER OF OLD CASES
NDDTC, Ghaziabad	33,737
Trilokpuri community clinic	15,600
Sundar Nagri clinic (methadone)	13,69
Sundar Nagri clinic (mobile clinic)	14,221
Total	77,248

Specialty Clinics: Data

Specialty Clinics	New Cases		Old Cases		Total
	Male	Female	Male	Female	
Adolescent Drug Abuse Clinic	43	-	144	-	187
Dual diagnosis clinic	68	-	510	-	578
Tobacco cessation clinic	46	1	397	-	444
TOTAL	157	1	1,051	-	1,209

Inpatient Services

Age Group (Years)	Male	Female	Total
14-18	37	-	37
19-20	63	-	63
21-25	189	2	191
26-30	224	-	224
>30	531	8	539
Total	1,044	10	1,054

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Rakesh Lal offered consultation for National Multisectoral action plan for prevention and control of NCD; New Delhi May 22-23. GOI action plan; went as India's representative to UNODC expert group meeting of member states; Vienna, March 9-11, 2015; involved with PHFI in studying alcohol taxation policies and their effect on Consumption; involved in workplace intervention with IOL refinery in Digboi.; involved as expert in MOU between GOI and Royal Govt. of Bhutan on matters relating to psychotropic substances

Professor Anju Dhawan organized the Conference on Stress Reduction Skills: Scientific Update on 30-31st 2014 by Department of Psychiatry and Sri Sri Global Meditating Doctors Association at IIT Delhi, AIIMS; contributed as an expert to the expert and authors meeting organized by Colombo Plan and US Department of State to the Development of Training Curricula for Service Providers to Address Child Drug Addiction on held on 22 –24 October 2014 at Washington DC; attended meeting on Dissemination of the findings of Methadone Maintenance Treatment in India” jointly organised by NDDTC, AIIMS and UNODC on 19th December 2014 at Alliance Françoise de Delhi, Delhi; was awarded membership of WHO Expert Committee on Abuse Liability Assessment; awarded membership of the Screening Committee for nominations under the Scheme of National Awards for Outstanding Services in the Field of Prevention of Alcoholism and Substance (Drug) Abuse for the Year 2014

Dr Sonali Jhanjee was organizing secretary of the Annual day NDDTC on 15th April, 2014; awarded membership of International Society of Addiction Medicine (ISAM); awarded membership of Society for Research on Nicotine and Tobacco (SRNT)

Dr Atul Ambekar was appointed member, Strategic Advisory Group (IDU and HIV) to United Nations; member, National Technical Resource Group, IDU, National AIDS Control Organisation, Government of India; member, Technical Advisory Group on Alcohol Control – Ministry of Health and Family Welfare, Govt. of India; member, National Task Force on Drug Demand Reduction and Capacity Building –Ministry of Social Justice and Empowerment, Govt. of India; member, Governing Body: National Fund for Control of Drug Abuse – Department of Revenue, Ministry of Finance, Govt. of India; member, Working Group, National Survey on Drug Abuse – National Sample Survey Organisation and Ministry of Social Justice and Empowerment, Govt. of India; member, Substance Use – Speciality Sub Section – Indian Psychiatric Society; member of editorial / advisory boards of International Journal of Drug Policy, International Journal of BioSciences and Technology, International Journal of Medical Sciences and Technology, Journal of HIV for Clinical and Scientific Research, Journal of Mental Health and Human Behaviour; appointed nodal officer, National Technical Training Centre (project of Emmanuel Hospital Association and National AIDS Control Organization, Government of India)

Dr Yatan Pal Singh Balhara was awarded Bhagwat Award of Indian Psychiatric Society and Young Psychiatrist Award of Indian Psychiatric Society for his orla presentations at 68th Annual National Conference of Indian Psychiatric Society held at Hyderabad from January 8-11, 2015.; appointed member representative from India for the Early Career Psychiatrist Council (ECPC) of World Psychiatric Association (WPA) for the year 2014.; collaborative Member, Gulbenkian Global Mental Health Platform- a collaborative effort by Calouste Gulbenkian Foundation, Department of Mental Health of the Faculty of Medical Sciences (NOVA University of Lisbon), and World Health Organization (WHO); selected WHO Global Mental health Scholar; member, Editorial board, Academic Psychiatry; member, Editorial Board for Journal of Psychiatric and Mental Health Nursing (JPMHN); member, Editorial Board for Journal of Social Health in Diabetes (JoSH); member, Editorial Board for Journal of Mental health and Human Behaviour (JMHHB); senior Editor, Journal of Pionnering Medical Students (JPMS)

Dr Gauri Shanker Kaloiya was appointed member of Expert Working Group (EWG): To develop a standardized Training Module for training of Psychologists under National Mental Health Program (NMHP). Nominated by Chief Medical Officer, NCD Section, Directorate General of Health Services, Dept. of Health and Family Welfare, Ministry of Health and Family Welfare, Govt. of India.

Dr Prabhoo Dayal was appointed participated as a chairperson in the 67th annual national conference of Indian psychiatric society. Session name- schizophrenia, Time & date 8-9 AM on 9th Jan 2015; chairperson at 1st national conference on mental health: current Perspectives, development and technological advancements held on 10th October 2014 at AIIMS, New Delhi, organized by Mental Health Foundation in association of the Department of psychiatry, AIIMS, New Delhi; member of organizing sub committees for conference on stress reduction skills: scientific update organized by the SriSri Global meditating doctors association and the department of psychiatry, AIIMS, New Delhi; was mentor for innovation project of Delhi University.

Dr Rachna Bhargava was awarded Boral Award in National Conference; invited in Expert Advisory Committee Meeting in Washington DC organised by US Department of State's Bureau for International Narcotics and Law Enforcement Affairs, Division of Drug Demand Reduction (DDR); associated in Psychological Examination of Antarctic Expedition Members; reviewer in National & international journals; treasurer in International Conference on Cognitive behaviour Therapy at AIIMS; appointed council Member of Indian Association for Child & adolescent & Mental Health for 2013-2015.

Dr Alok Agrawal was involved in development of the Online Drug Abuse Monitoring System for the Central Sector Scheme for Drug Demand Reduction supported by the Ministry of Social Justice & Empowerment, Government of India; appointed member, Committee for Developing Accreditation Systems for Integration Rehabilitation Centre for Addicts (IRCA), Ministry of Social Justice & Empowerment, Government of India.

Dr Biswadip Chatterjee was part of the organizing committee of the "Conference on Stress reduction Skills: A scientific update"; 2014 August 30-31, Delhi, India; organizing committee of the "Technical meeting on Sexual Disorders"; 2015 April 14, Delhi, India; technical resource person of the "Three Days Training Programme on Special Services required for Children affected by drug abuse for Govt. / NGOs functionaries" organized by Child Line India Foundation in partnership with NISD, Ministry of Social Justice & Empowerment (MS & JE), Govt. of India; 2015 March 19-21; Dharamsala, Himachal Pradesh.

10.7 Neurosciences Centre

Chief

N.K. Mishra

Neurosurgery

Professor and Head

Bhawani Shankar Sharma

Professors

Ashok Kumar Mahapatra (On Deputation to AIIMS Bhubaneswar)

Shashak Sharad Kale

P. Sarat Chandra

Ashish Suri

Additional Professors

Rajinder Kumar

Manmohan Singh

Deepak Agrawal (JNPATC)

Deepak Gupta (JNPATC)

Sumit Sinha (JNPATC)

Associate Professors

Gurudutt Satyarthee (JNPATC)

Pankaj Kumar Singh (JNPATC)

Assistant Professors

Vivek Tandon

Sachin Borkar

Hitesh Gurjar

Aman Jagdewan

Shashwat Mishra

Rajeev Sharma

Shweta Kedia

Professor Emeriti

Prakash Narain Tandon

Ajit K. Banerji

Neurology

Professor and Head

Kameshwar Prasad

Professors

Madhuri Behari

M.V. Padma Srivastava

Manjari Tripathi

Vinay Goyal

Achal Srivastava

Garima Shukla

Additional Professors

Rohit Bhatia

Mamta Bhushan Singh

Assistant Professors

Deepti Vibha

Deepa Dash

Neuropsychology

Associate Professor

Ashima Nehra

Neuroradiology

Professor and Head

N.K. Mishra

Professor

S.B. Gaikwad

Additional Professor

Ajay Garg

Assistant Professor

Leve Joseph Devarajan

Neuroanaesthesiology

Professor and Head

Parmod K. Bithal

Professor

Arvind Chaturvedi (On sabattical leave)

Additional Professors

Rajendra Singh Chouhan

Girija Prasad Rath

Mihir Prakash Pandia

Hemanshu Prabhakar

Assistant Professors

Gyaninder Pal Singh (JPNATC)

Niraj Kumar (JPNATC)

Kapil Dev Soni (JPNATC)

Navdeep Sokhal (JPNATC)

Indu Kapoor

Bindra (JPNATC)

Keshav Goyal (JPNATC)

Richa Aggarwal (JPNATC)

Charu Mahajan

Surya Kumar Dube

Neuropathology

Professor

Chitra Sarkar

M.C. Sharma

Additional Professor

Vaishali Suri

HIGHLIGHTS

In the year 2014-2015, further impetus was provided to enhancing quality of patient care as well as promoting & disseminating recent advances in all disciplines of Neurosciences through teaching & training programmes. The scope & domain of patient care services were expanded in all disciplines, including improved image guidance & monitoring in surgeries, use of 'O' arm system for precision spine surgeries, enhanced clinical stratification & therapeutic approach to neurological diseases, additional biochemical testing facilities like gene sequencing & improved serological tests, wider application of imaging protocols such as perfusion imaging, improved CT angiography, perfusion studies using arterial spin labelling (ASL) technique, FA mapping & tractography in MRI, enhanced histological methodologies for tumour categorization & grading etc. One of our professors in Neurosurgery, Prof. Ashish Suri was selected as Adjunct Professor, School of IT, Indian Institute of Technology-Delhi (IIT-D), a very creditable honor indeed. Prof. P. Sarat Chandra was instrumental in starting the state of the art Prof. P.N. Tandon Neurobiology of Epilepsy Lab, an unique facility brought about by cooperation between AIIMS, Dept. of Biotechnology, Govt. of India & the Neurosciences Centre, which provides infrastructure to explore neurobiology in epileptogenic neurons with the help of biologists from the National Brain Research Centre (NBRC), Manesar, Haryana & is expected to be very useful in translational research in the field of epilepsy. Dr. Deepak Agrawal, another Neurosurgeon has pioneered the computerization of AIIMS in collaboration with Dr. Ajay Garg from department of Neuroradiology. He received the best IT project in healthcare-2014 award by e-India for Computerisation of AIIMS. He also received Golden Peacock Innovative Product/Service Award - 2014 for computerization.

Prof. Kameshwar Prasad, head, Dept. of Neurology was invited as a member of the WSO (World Stroke Organization) Global Quality Working Group & Prof. Padma Srivastava was inducted as Member of "Institute Body" of the Sree Chitra Institute of Medical Sciences & Technology, Trivandrum.

A state-of-art 128 slice dual energy scanner was installed in the department of Neuroradiology replacing the 10 year old 6 slice scanner. With the new CT, low-dose CT protocols with modelled iterative reconstruction & a dose reduction potential of up to 60% & faster acquisition in clinical routine is now possible and the best image quality is ensured. This has enhanced patient compliance, especially in children and where breath hold acquisition is required. Also CT Fluoroscopy to help guided- biopsies and CT perfusion to assess cerebral perfusion especially in acute stroke has 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 the wide bore of the magnet has reduced claustrophobia in patients significantly. PACS network is made operational in wards & OPD rooms of NSC with upgrade of the PACS server & installation of viewing stations in wards, ICUs & 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 & network all studies on-line. Auto-requisitioning has been enabled from NSC wards on-line for CTs, MRIs, US& DSAs etc. Auto fetching of case records from PACS enabled for neuroradiology conferences. Private imaging films brought by patients are now digitized and integrated into the PACS system on registration of patient UHID.

Training programs:

- Department of Neurosurgery organizes regular skills training program for all its residents in DHR+DST+DBT Neurosurgery Skills Training Facility at the Central Animal Facility for development of complex neurosurgery skills training. Apart from this, Inaugural course in Neurosurgery on cadaver training, cadaver workshop for neurosurgical skills & hands on cadaver workshop for Endoscopic odontoidectomy and percutaneous spine fixations and Craniovertebral junction advances during Annual Neurotrauma conference was conducted on 30.10.2014. The inaugural CTRF course was organized between 4/9/2014 to 31/10/2014
- Department of Neurology, AIIMS, New Delhi in collaboration with the Dept. of Science and Technology, Govt. of India and Royal Society, UK organized seminars on "Towards the Identification of Cerebrovascular disease genes in South Asians" & "Identification of Cerebrovascular Disease Genes in South Asians" on 28th March, 2015 at the Ramalingaswamy Board Room, AIIMS, New Delhi. The objective of the seminar was to better understand the underlying mechanism of cerebrovascular disease in young South Asian population, which may ultimately lead to novel and perhaps population – specific drug targets. The seminar was attended by experts from reputed medical institutions from India and UK. Conducted an Evidence Based Medicine and Workshop on Therapy and SPSS, Kuwait City, Kuwait from 18th-19th October 2014. Prof. Garima Shukla organized a 2 hour video workshop titled: 'Spectrum of abnormal behaviours during sleep' at India Habitat Centre, New Delhi, on 6.2.2015 with guest faculty: Prof. Sudhansu Chokroverty, (Co-Director of Neurology (Clinical Neurophysiology and Sleep Medicine at the New Jersey Neuroscience Institute, JFK Medical Centre, Edison, New Jersey, USA, Founder President World Association of Sleep Medicine, Editor in Chief, Sleep Medicine). Dr. Rohit Bhatia, organised Public Awareness program on Stroke at AIIMS on World Stroke Day, 29 October 2014 at the JLN auditorium, AIIMS. In the last one year a separate specialized clinic: Cognitive Disorders and Memory Clinic (CDM Clinic) was started by the departments of Neurology and Clinical Neuro Psychology on every wednesday mornings.
- The department of Neuroanaesthesia successfully organized AIIMS Neuroanaesthesia Update-30.08.2014 to 31.08.2014.
- Department of Neuroradiology hosted the "17th Annual conference of the Indian Society of Neuroradiology" between 9th-12th October 2014, at the Oberoi, Gurgaon. Dr. Jitender Singh, Hon. Minister of Science and Technology, PMO, inaugurated the scientific meeting. Guest of honor was Prof. MC Misra, Director, AIIMS.
- Prof Chitra Sarkar, Head, Neuropathology, was invited by WHO to co-author the chapters entitled "Primitive neuroectodermal tumor of central nervous system" and Embryonal tumor with multilayered rosettes" in the upcoming WHO classification of Tumours of the Central Nervous System

- ‘Stroke including Stem Cell intervention in Stroke’ has been proposed by the Neuroscience Centre as a major theme for Indo-US research collaboration following President Obama’s visit to India in January 2015 & the MOU signed on Academic co-operation & collaborations in Medical Education, Clinical Research & Training by the two governments. Some very reputed medical institutes in the US & collaborating scientists have been identified for this collaboration. It is currently under active consideration of Govt. of India and hopefully will be approved soon, so as to bring together reputed institutes in the two countries to augment research in various facets of this international malady & help develop roadmaps to implement effective corrective measures, which may reduce economic and social impact in coming years.

- Twelve research projects (1 funded, 11 departmental) were completed while 28 research projects (6 funded, 14 departmental and 08 collaborative) are ongoing in various departments.

Vacancies in the nursing cadre was filled this year and some of other vacancies in ministerial cadre were outsourced to ease staff deficiency to certain extent. The façade work of the NSC was completed this year & a wide span canopy over the open area outside the CN Centre OPD was installed to provide shade in hot & rainy weather for patients waiting for OPD consultations, since the OPD hall could not hold the very large number of patients coming to the CN centre. Special fire fighting arrangements with newly laid water pipelines were commissioned to cover all areas of the centre.

Neurosurgery

HIGHLIGHTS

In the year 2014-2015, focus was on teaching and learning recent advances in Neurosurgery. Workshops and CME’s were organized on endoscopy, functional neurosurgery and advanced spinal surgeries. Prof. B.S. Sharma was elected as President of Neurological Society of India, Cerebrovascular Society of India, and Indian Society of Peripheral Nerve Surgery. He also delivered prestigious Dave Newton Oration at KGMC Lucknow and Sheikh Abdulla Oration at SMS Jaipur. Prof. Ashish Suri’s work in the field of neurosurgery simulation was given due recognition; and he was elected as Fellow Academy of Medical Sciences (FAMS), selected as Adjunct Professor, School of IT, Indian Institute of Technology–Delhi (IIT-D), appointed as Expert in DBT Bio-engineering task force and convener for Congress of Neurological Surgeons (USA) - Neurological Society of India Conjoint Simulation Workshop. Prof. P. Sarat Chandra was instrumental in state of the art Prof. P.N. Tandon Neurobiology of Epilepsy Lab, which is involved in translational research in the field of epilepsy. His work in the field of epilepsy was given due recognition, as he was elected President of Asian Epilepsy Surgery Congress. Dr. Sumit Sinha established Cadaver Training and Research Facility at JPNATC, AIIMS. This facility will be utilized by all departments for cadaver based training and is equipped with state of the art infrastructure. Dr. Deepak Gupta was Invited by National Institute of Health, USA to participate in National Neurotrauma Conference at San Francisco, USA to deliberate on International initiatives in neurotrauma research in Traumatic brain injury and to represent India for starting Neurotrauma Registry in India. Dr. Deepak Agrawal has contributed immensely in the computerization of AIIMS. He received the best IT project in healthcare-2014 by e-India for Computerisation of AIIMS. He also received Golden Peacock Innovative Product/Service Award - 2014 for computerization.

EDUCATION

Undergraduate: Two lectures for V semester and, Case presentations in Histopathology and Clinical Sciences for VI semester

Nursing: Our faculty members took more than 20 lectures in college of nursing to teach nursing students. Apart from that, ward and clinical teaching of these students was facilitated by our MCh students and faculty.

Postgraduate: On weekly basis, seminar, journal club, case presentation and mortality presentations were organized for the MCh residents.

Innovative training programs: Department of Neurosurgery organizes regular skills training program for all its residents in DHR+DST+DBT Neurosurgery Skills Training Facility at the Central Animal Facility for development of complex neurosurgery skills training. Prof. Ashish Suri has been instrumental in organizing these sessions: daily skills training sessions = 1356, quarterly workshops = 54 delegates, fellows = 2, residents = 45, short term trainees = 32.

Apart from this, Dr. Sumit Sinha organized following cadaveric training sessions at Cadaver training and research facility at JPNATC:

1. Inaugural course in Neurosurgery on cadaver training- Chaired by Prof. B.S.Sharma. It was attended by 30 participants on 4.9.2014.
2. Cadaver workshop for neurosurgical skills during Annual Neurotrauma conference on 30.10.2014.
3. 2 CTRF courses on spine and skull base neurosurgery were organized. Moreover, at the CTRF facility inaugural CTRF course was organized between 4/9/2014 to 31/10/2014 where training of departments of neurosurgery, orthopaedics, surgery, emergency medicine, anaesthesia,CTVS and ANTC took place. Around 147 delegates participated in it. First CTRF course was organized from 7/2/2015 and in it similar number of departments were able to provide training to 221 participants.
4. Hands on Cadaver workshop for Endoscopic odontoidectomy and Percutaneous spine fixations and Craniovertebral junction advances during ANTC 2014 (2nd AIIMS NEUROTRAUMA CONFERENCE) organized by Dr Deepak Gupta on 30.10.2014.

CMEs/Workshops/Symposia/ Conferences

1. Annual AIIMS Microneurosurgery Workshop organized in February.
2. Sarveshwari Memorial Oration., Prof. William Couldwell (USA)
3. Prof. P.N.Tandon Oration, Prof. Kenji Ohata (Japan)
4. ICMR Neurosurgery Skills Training Workshop organized quarterly by Prof. Ashish Suri.
5. 2nd Annual Neurotrauma Conference 2014, Workshops on ICP monitoring and cerebral microdialysis in traumatic brain injury.
6. Annual AIIMS Spinal Surgery Workshop (October), Live demonstration of advanced spinal surgeries.
7. Delhi Neurological Association Meeting on 7th March 2015, Attended by members of Delhi Neurological Association.
8. Management of Complex Spinal Trauma - 4th Live Operative Workshop & Symposium, JPNATC, AIIMS, May 10-12, 2014
9. Dr Vincent Traynelis, MD, Director, Neurosurgery Spine Service, Vice Chairperson and Professor, Rush Univ Med center, Chicago, USA. Demonstrated complex surgical procedures in live workshop.

Lectures delivered

B.S. Sharma: 16

Ashish Suri: 19

Deepak Gupta: 23

Vivek Tandon: 3

Rajeev Sharma: 6

Shashank Sharad Kale: 8

Rajinder Kumar: 2

Sumit Sinha: 22

Sachin Borkar: 1

P.S. Chandra: 14

Manmohan Singh: 6

G.D. Satyarthee: 1

Pankaj Kumar Singh: 2

Oral papers/posters presented: 18

RESEARCH

Funded projects

Ongoing

1. "Centre of Excellence for Epilepsy", P. Sarat Chandra, DBT, 05 years, 2011 - 2016, 363 lakhs
2. Cervical rotation before and after hinge door cervical laminoplasty, Sachin Borkar, AO Spine India, 1 year, 2014-15
3. CHIRAG study in Severe TBI (Collaborative head injury study in severe traumatic brain injury), Deepak Gupta, Department of biotechnology DBT and National Institute of Health, 4 years, 2011-15, 27 Lakhs
4. Design and Development of cost effective multipurpose research Phantom, simulating patient for high resolution stereotactic imaging and precise radio-surgery IEC/np-91/2014, S.S. Kale, AIIMS, 2014-16, 4.5 lakh

5. Development of 3D/stereoscopy based virtual reality simulation platform for endoscopic neurosurgery training and pre-operative neurosurgical planning, Ashish Suri, Department of Health Research (DHR), Indian Council of Medical Research (ICMR), Ministry of Health & Family Welfare, Govt. of India, AIIMS+ CSE- IIT-D, 3 years, 2014-2017, 211 Lakhs
6. Development of Low-Cost Versatile Endoscopic Equipment System for Neurosurgery, Ashish Suri, Department of Science and Technology - Instrumentation Development Program (DST- IDP), India. AIIMS+ CBME- IIT-D, 4 years, 2012–16, 86 Lakhs
7. Early versus Delayed Decompression for Traumatic high Cervical Spinal Cord Injury in Acute Spinal Cord Injury Study: A Randomized Controlled Trial, Deepak Agarwal, DST, 2 years, 2014, 2900000
8. Evaluation of development of neurosurgery skills by hands - on skills training and interactive virtual training modules (web based, tele-education and real time evaluation), Ashish Suri, Indian Council of Medical Research (ICMR), Ministry of Health & Family Welfare, Govt. of India, AIIMS+ CSE- IIT-D, 4 years, 2012-2016, 144 Lakhs
9. Injury Mechanisms in Blast and Blunt traumatic brain injury- a comparative study based on clinical data and numerical analysis, SS Kale, Office of the Naval Research Global, 1 year, 2014-2015, INR 30,00,000
10. Monitoring cognition of healthcare workers in emergency and intensive care setting and its relation to medical errors, Deepak Agarwal, DST, 4 years, 2011, 59,86,400/-
11. Neurosurgery Skills Training Facility with 3D Endoscopic and 3D Microscopic Facility and Central Repository Server for Archival , Streaming and Teleconferencing, Ashish Suri, Dept. of Science and Technology: Ministry of Science and Technology, Govt. of India. AIIMS+ CSE- IIT-D, 5 years, 2012-2017, 650 Lakhs
12. Proposal for Establishment of Cadaver Training and Research Facility, Sumit Sinha, ICMR, 5 years, September 2014 – September 2018
13. Role of Ischemia biomarkers and hyperglycemia for predicting outcome in severe traumatic brain injury: a microdialysis study. AIIMS intramural grant, 2 years, 2013-2015, 5 Lakhs
14. ROSE Trail, SS Kale, Iprocess pvt.ltd, 2011- 2014 extended 2017, INR 25,00,000
Urine Matrix Metalloproteinases (MMP) As Biomarkers For Fusion Following Spinal Instrumentation, Deepak Agarwal, AOSPINE, India Research Grant , 1, 2014, 6000 CHF

Completed

1. A Randomized Placebo controlled trial (Factorial design) of Progesterone with or without hypothermia in subjects with acute severe traumatic brain injury, Sumit Sinha, DBT, 3 years , Oct 2011- Oct 2014
2. An Assessment of Surgical Techniques for treating Cervical Spondylotic Myelopathy –International Multicenter study, SS Kale, AOSpine, 4 years, 2008-2014, 2000000
3. DTI tractography for prediction of facial nerve position in vestibular schwannoma, Sachin Borkar, AIIMS Intramural research grant, 1, 2013-2014, 2,52,000
4. EUROTHERM 3235 Titrated therapeutic Hypothermia for control of refractory intracranial hypertension in traumatic brain injury, Deepak Gupta, University of Edinburgh and NHS Lothian (UK), 3, 2012 - 2015, 45 Lakhs
5. Expansion of DST + DBT Sponsored Neurosurgery Skills Training Facility and Development of Stereoscopic (3 Dimensional - 3D) Virtual Training Modules for Neurosurgery Skills Training, Ashish Suri, Department of Health Research (DHR), Indian Council of Medical Research (ICMR), Ministry of Health & Family Welfare, Govt. of India, AIIMS+ CSE- IIT-D, 2 years, 2012-2014, 148 Lakhs
6. Randomized two arm parallel group clinical trial to evaluate the efficacy of pituitary surgery using IOMRI vs fluoroscopy, Vivek Tandon, AIIMS intramural fund, 1 year, 2013-2014, 2.5 Lakh
7. Role of human umbilical cord blood stem cells and neural stem cells in neuronal regeneration and functional restoration: A comparative study in male adult rats with acute spinal cord injuries, Sumit Sinha, DBT, 3 years, June 2011-Dec 2014
8. Thromboelastometry (TEG): Utility And Cost-Effectiveness In Diagnosing Of Infection In Neurosurgery Intensive Care Unit (ICU) As Compared To Established Biomarkers, AIIMS, 2 years, 2012, 1000000

Departmental projects

Ongoing

1. A study on clinical significance of PTEN regulatory genes in human primary glioblastoma (DBT funded project)
2. Anterior Transpetrosal approach
3. Cerebral microdialysis in traumatic brain injury patients
4. CT angiography in CVJ anomalies: a prospective study
5. Dosimetric evaluation and optimization of fractionated stereotactic radio-surgery
6. Far Lateral approach
7. Feasibility of postoperative CT Scans in elective neurosurgical patients
8. Gamma knife fractionation in intracranial lesions
9. Intramedullary tumors
10. Study of clinicopathological features and molecular genetic alterations in adult versus pediatric meningiomas (Intramural project)
11. Surgical management of Cushings Disease
12. Usefulness of ETV in posttraumatic hydrocephalous
13. Usefulness of IOMRI in glioma surgery

Completed

1. Clinoidal Meningiomas.
2. Post Gamma knife radiation edema following radiosurgery in AVM
3. Retrospective cum prospective nonrandomized analytical study involving patients with severe TBI undergoing DC
4. Surgical management of Giant Pituitary Adenomas

Collaborative projects

Ongoing

1. Early Identification of Mild Traumatic Brain Injury induced cognitive deficits using novel coated platelet marker, DBT
2. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis of organ dysfunction and sepsis, DBT
3. Australia India Collaboration Systems project, AITSC, Australia – India DBT, 5, 2014
4. Australia India Trauma systems Collaboration project (AITSC), Australia India strategic Research Fund of the respective Ministries of Science and technology
5. Development and Implementation of an Automated Electronic Surveillance System for Hospital Acquired Infections at a Tertiary Care Hospital of India. Funded by ICMR
6. Development and Implementation of an Automated Electronic Surveillance System for Hospital Acquired Infections at a Tertiary Care Hospital of India, ICMR, 3yrs, 2014
7. Development of 3D/stereoscopy based virtual reality simulation platform for endoscopic neurosurgery training and pre-operative neurosurgical planning, AIIMS: Neurosurgery, Anatomy, Forensic Medicine, IIT-D: CSE
8. Development of Low-Cost Versatile Endoscopic Equipment System for Neurosurgery, IIT-D: CBME
9. Evaluation of development of neurosurgery skills by hands - on skills training and interactive virtual training modules (web based, tele-education and real time evaluation)., AIIMS: Neurosurgery, Anatomy, Forensic Medicine, IIT-D: CSE
10. Neurosurgery Skills Training Facility with 3D Endoscopic and 3D Microscopic Facility and Central Repository Server for Archival , Streaming and Teleconferencing., AIIMS: Neurosurgery, Anatomy, Forensic Medicine, IIT-D: CSE

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 2014-2015.

Completed

1. Expansion of DST+DBT Sponsored Neurosurgery Skills Training Facility and Development of Stereoscopic (3 Dimensional - 3D) Virtual Training Modules for Neurosurgery Skills Training, AIIMS: Neurosurgery, Anatomy, Forensic Medicine, IIT-D: CSE

S. No.	Treatment facility	Number
1.	Outpatient department	
	a) Total New Cases	13952
	b) Total Old cases	31215
	c) Pediatric new cases	1968
	d) Pediatric old cases	6575
	e) Total cases	45167
2.	Gamma Knife (OPD)	1584
3.	Gamma Knife procedures	447
4.	a) Surgeries in intraoperative MRI (CNC)	242
	b) Number of elective surgeries (CNC)	3548
5.	Number of surgeries (JPNATC)	1440
6.	Total number of surgeries	4911
7.	Number of admitted patients in JPNATC	1777
8.	Number of patients seen in OPD at JPNATC	6552

Dr Ashish Suri: Neuro Health Camp at Punjab in June and December, 2014 for poor patients.

Dr Manmohan Singh: Running the Deep Brain Stimulation Program of the department and Running the gamma knife clinic at Gamma knife centre

Dr Sumit Sinha: Part of the doctor panel to attend serious and chronic patients at Laddakh from 24th-31st August 2014

Dr Vivek Tandon: Looking after neurosurgery package and store. Speciality clinics include brachial plexus clinic in trauma center and also joined centre of excellence for epilepsy and started learning and doing epilepsy surgery with Prof. P.S.Chandra.

Dr Rajeev Sharma: Took active part in “head injury prevention initiative” public campaign” conducted by neurosurgery department during head injury awareness week (27 oct – 2 nov 2014) held during AIIMS annual neurotrauma conference 2014.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor B.S. Sharma was Elected President - Neurological Society of India; Elected President - Cerebrovascular Society of India; Elected President - Indian Society of peripheral nerve Surgery; Visiting Professor at Australian School of Advanced Medicine, Macquarie University, Australia from 22-29 March, 2015.

Professor S.S. Kale was appointed of External Examiner, M.Ch Practical Examination, 22-23 July 2014, Dr NTRHUS Health University AP, Hyderabad; Selection Committee, Expert for Interviews, 16 Jan 2015, Pt. BD Sharma University of health Sciences, Rohtak Haryana; Purchase Committee Meeting, External Expert for the purchase Committee for establishment of latest state of the Art Top of the line Intra-operative MRsuite, 10-11 Feb. 2015, NIMHANS, Bangalore; Technical Meeting (Intra-operative MRI Facility), 4 March 2015, NIMHANS, Bangalore.

Professor P.S. Chandra was Elected Treasurer of Neurological Society of India; Elected President of Asian Epilepsy Surgery Congress; Elected member, sub-commission, Pediatric Epilepsy Surgery, International League Against Epilepsy (ILAE); Prof PN Tandon Neurobiology of Epilepsy Lab became functional and officially inaugurated on 12 Feb 2015 by Director, AIIMS Prof MC Mishra in presence of Prof PN Tandon under the aegis of Center of excellence for epilepsy; Organized the “Advanced Epilepsy Surgery, Epilepsy Neurobiology and functional workshop” on 9-10 April, 2015 under the aegis of Center of excellence for epilepsy.

Professor Ashish Suri was Selected F.A.M.S. - Fellow Academy of Medical Sciences.; Selected Adjunct Professor, School of Information Technology, Indian Institute of Technology- Delhi.; Elected Executive Member NSI - Neurological Society of India.; Elected Convener CNS – NSI (Congress of Neurological Surgeons - Neurological Society of India) Simulation Workshop.; Selected Expert DBT Bio-Engineering Task Force.; Selected Expert ICMR Neuroscience Translational Research Task Force.; Visiting Professor: Brain and Cognitive Science, Massachusetts Institute of Technology (MIT), Cambridge, USA.; Visiting Professor: Department of Neurosurgery, Institute of Neurosciences and Penn State Centre for Neuro Engineering Science and Medicine, Pennsylvania State University, Milton S Hershey PA, USA.

Dr Deepak Agarwal was Awarded the prestigious ‘Tata Innovation Fellowship’ by DBT for a 3 year period wef 2013 of Rs 22.5 lakhs.; Awarded first prize for co-authoring the study titled ‘Regulated upon Activation, Normal T cell Expressed and Secreted levels in plasma cerebrospinal fluid and contused brain tissues as a marker of immune activation in Traumatic Brain Injury(TBI) patients’ at ANTC in AIIMS, New Delhi on 1 Nov 2014.; Awarded the best IT project in healthcare-2014 by eIndia at The Leela Kovalam, Trivandrum on 15th November 2014.; Awarded the Golden Peacock Innovative Product/Service Award - 2014 for Computerisation of AIIMS, New Delhi by the Golden Peacock Awards Secretariat on 23rd May 2014.; Declared winner for Maharashtra Healthcare Leadership 2014 in the category “Innovative & extremely cost-effective use of ICT for Hospital” on 11 July 2014 at Pune.;

Dr Manmohan Singh was invited as visiting Professor in the department of Neurosurgery, SGPGI-Lucknow in April 2014.

Dr Deepak Gupta was invited by NIH/NINDS(National institute of health, USA)to participate in National neurotrauma Preconference Investigator meeting of InTBIR (International initiatives in neurotrauma research in TBI), 3rd International Traumatic Brain Injury Research (InTBIR) Meeting June 28 - 29, 2014, San Francisco, USA.; Selected by NIH/NINDS and European High Commission to begin CINTER TBI (Collaborative Indian Neurotrauma Effectiveness research in Traumatic brain injury) under aegis of CENTRE –TBI and to start Neurotrauma registry in India.; Organised Cadaveric Hands on workshop on Endoscopic Odontoidectomy, MISS, Neurocritical care workshops in Craniospinal trauma (30th October 2014).; Organised 2nd ANTC 2014 Confernece, AIIMS, Delhi (31st October – 2nd November 2014).; Organised Head injury Awareness week activities in Delhi/ NCR, Public awareness lectures on Prevention of Head injury and carried out Educational head injury awareness campaign in various Delhi and NCR schools covering over 50000 children in Head injury prevention week (October –November 2014).; Selected as Honorary Secretary of Delhi Neurological Association (2015-2018)

Dr Sumit Sinha was AANS International travel scholarship conferred for the abstract selected as the best abstract at the 82nd Annual meeting of Neurological surgeons society held at San Francisco in April 2014.; A part of the core committee for formulation of guidelines for the management of traumatic brain injury in India.; Executive committee member of Neurotrauma society of India.; Member of the AIIMS Committee for finalizing the list of essential drugs/ medicine/ surgical items, sponsored by Asoka mission.; Part of the DGHS, Govtt. of India advisory committee for standard treatment guidelines for the use of medical practitioners in both public and private sector for provision of proper health care.; Associate Editor, Indian Journal of Neurotrauma.; Associate Editor, Indian Journal of Neurosurgery.; Member of the World federation of Neurological Societies- Peripheral nerve section.

Dr Vivek Tandon was invited by Department of telecommunication as a speaker in plenary session to speak on health effects of electromagnetic field radiation.; Nominated in the executive committee of Indian Society of

peripheral nerve surgery.; Working as assistant editor, Indian journal of neurosurgery.; Assisted first laser surgery in an epilepsy patient, In India.; Nominated as an assistant editor for the upcoming journal of Indian Society of peripheral nerve surgery. ; Organized workshop for ICP measurement during AIIMS, annual neurotrauma conference, New Delhi.

Dr Sachin Borkar was Awarded International Group for Advancement of Spinal sciences (IGASS) Spine fellowship at Guy's & St. Thomas Hospital, NHS Foundation Trust, London UK; Awarded membership of National Academy of Medical Sciences (NAMS).

Dr Rajeev Sharma won Second prize for "Microsuturing and Microneural anastomosis" in 15th Neurosurgery skills training workshop held at AIIMS, New Delhi from 21 Nov to 23 Nov 2014.

VISITING SCIENTISTS

1. Prof. William Couldwell: Professor and Chair of the Department of Neurosurgery at the University of Utah
2. Prof. Y.R. Yadav: Professor, Department of neurosurgery, Jabalpur Medical College, India
3. Dr Vincent Traynelis: Director, Neurosurgery Spine Service, Vice chairperson and professor, Rush Univ Med center, Chicago, USA.
4. Prof. Kenji Ohata: Chairman, Department of *Neurosurgery*, Japan, *Neurosurgery*, Neurology and Neuroradiology. Osaka City University, Japan.
5. Prof. Charles Teo: Director of the Centre for Minimally Invasive Neurosurgery at Prince of Wales Hospital, Sydney, Australia.

Neurology

HIGHLIGHTS

- Implementing the first of its kind Cohort study entitled "A Population Based Prospective Cohort Study to Unravel the Causes of Stroke and Cognitive Decline: A cross-cultural perspective" in collaboration with Erasmus University, The Netherlands.
- Department of Neurology, AIIMS, New Delhi in collaboration with Dept of Science and Technology and Royal Society, UK organized a seminar on "Towards the Identification of Cerebrovascular disease genes in South Asians" on 28th March, 2015 in Ramalingaswamy Board Room, AIIMS, New Delhi. The seminar was attended by the experts from reputed medical institutions from India and UK.
- Acted on direction of Ministry of Health & Family Welfare, Govt. of India as focal point to work on WHO Neurology ATLAS questionnaire.

EDUCATION

The following trainees were accepted in the department: D.M. (Neurology) residents (15); M.D. (postgraduates) posted in Neurology (24); U.G. students; Ph.D. students (25); Short term training (10); Visiting Fellows (4).

Innovations: Structured critical appraisal and evidence based approach to Journal Club for Residents and Ph.D. students. Improved teaching methods for D.M. students including approach to complicated neurological patients, reading and interpreting EEG, VEEG and Polysomnography records. Introduction of multi-mini interviews in departmental assessment of candidates for D.M. entrance in the department.

CMEs/Workshops/Symposia/National and International Conference

Dr Kameshwar Prasad

1. Conducted Indo-UK Scientific Seminar on "Identification of Cerebrovascular Disease Genes in South Asians" with support from DST, GOI and Royal Society, UK on 28th March 2015.
2. Organized a workshop entitled "Evidence-Based Clinical Practice 2014" from 13 to 14 December 2014 at AIIMS, New Delhi.
3. Conducted an Evidence Based Medicine and Workshop on Therapy and SPSS, Kuwait City, Kuwait from 18th-19th October 2014.

- Organized a workshop entitled “Designing Medical Research & Thesis” from 26 to 27 July 2014 at AIIMS, New Delhi.
- Organized PG Courses on Research Methodology in collaboration with other departments at AIIMS, New Delhi - 20-24th August 2014; 15-19th September 2014; and 15-19th October 2014.

Garima Shukla

- 2 hour video workshop titled: ‘Spectrum of abnormal behaviours during sleep’ at India Habitat Centre, New Delhi, on 6.2.2015. Guest faculty: Prof. Sudhansu Chokroverty (Co-Director of Neurology (Clinical Neurophysiology and Sleep Medicine) at the New Jersey Neuroscience Institute, JFK Medical Centre, Edison, New Jersey, USA, Founder President World Association of Sleep Medicine, Editor in Chief, Sleep Medicine)

Rohit Bhatia

- Organised public awareness program on stroke at AIIMS on the event of World Stroke Day, October 2014.

Lectures delivered

Kameshwar Prasad: 29

M. Behari: 6

M.V. Padma Srivastava: 16

Manjari Tripathi: 24

Vinay Goyal: 4

Achal Srivastava: 7

Garima Shukla: 16

Rohit Bhatia: 10

Mamta Bhushan Singh: 2

Oral papers/posters presented: 29

RESEARCH

Funded Projects

- 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, Monash & George Univ, Australia., 5yrs, 2010-2015, 30 lakhs
- Determination of the role of persistent viral infection in patients of monomelic amyotrophy (MMA), Deepthi Vibha, *Intramural AIIMS*, 2, 2013-2015, 5 lacs
- A Population Based Prospective Cohort Study to Unravel the Causes of Stroke and Cognitive Decline: A Cross Cultural Perspective, Kameshwar Prasad, DBT, 8 years, 2014-2022, Rs. 31,16,38000. (thirty one crore, sixteen lakh, thirty eight thousands)
- A randomised, balanced, open label, multiple dose, steady state, two way crossover bioequivalence study of felbamate tablets 600mg, Manjari Tripathi, Raptim Research, 3yrs, 2013-2016, 15 lakhs
- Association of associated antibodies in the serum of persons with epilepsy. Manjari Tripathi, DBT. 2yrs. 2012 15, 1 cr
- Asymptomatic and symptomatic CAD in patients with stroke and TIA's, Rohit Bhatia, ICMR, 3 yrs, 2014 2017, 32 Lacs
- Biomarkers to differentiate ischemic stroke and hemorrhagic stroke and its relationship to stroke etiology and outcomes, Rohit Bhatia, AIIMS, 2 yrs, 2014-2016, 10 Lacs
- Biomarkers to enhance predictive power for short-term and long term outcome after spontaneous intracerebral hemorrhage, Kameshwar Prasad, Department of Biotechnology, Govt. of India, 5 years, 2013-2018, Rs. 119,40000
- Center of Excellence Epilepsy- Phase 1, Manjari Tripathi, DBT, 5, 2013-18, 40 cr
- Circadian sleep rhythm abnormalities among children suffering from autism spectrum disorders: a case control study, Garima Shukla, ICMR, 3 years, 2014-2017, 78 lacs
- Clinical and Molecular Characterization of Early Onset Recessive Cerebellar Ataxia (EOCA)., Achal Kumar Srivastava, ICMR, Three years, 2012-2015, 47 lacs
- Comparative trials of constrained induced movement therapy (CIMT) and CIMT with transcranial magnetic stimulation (TMS) for patients with stroke measured on disability outcome scales and functional imaging. DST, Rs. 42,74,890, ATTEND Trial

13. Comparison of Constrained Induced Movement Therapy (CIMT) & Electrical Stimulation (ES) for patients with chronic stroke measured on disability outcome scales and functional imaging, ICMR, Rs.18,00,000. (approx)
14. Deciphering the genetic etiology of stroke in Indians using whole exome sequencing using an established and already externally fully funded multicentric Indian stroke biobank, Kameshwar Prasad, DBT, 5 years, 2013-18, Rs.19700000
15. Development and validation of a comprehensive clinical and neuropsychological test battery for use in Indian context for patients with vascular cognitive impairment, Manjari Tripathi, ICMR, 3yrs, 2012-2015, 25 lakhs
16. Effects of non-ionizing electro magnetic field (EMF) on human health. ICMR, Rs. 32,67,354
17. Elucidation of molecular pathogenesis in SCAs using IPS cell model and next gen sequencing (Clinical Principal Investigator), Achal Kumar Srivasatava, CSIR, Three years, 4 Crore
18. Generating knowledge for assessment of emerging technologies – The effect for prevention of new vascular events in-patients with sleep disorder breathing and stroke, Garima Shukla, DST, GOI, 3 years +1.5 years, 2009-2014, 58 lacs
19. Identification of genetic risk factors of stroke in Indian population, Kameshwar Prasad, DBT, 5 years, 2013-2018, Rs 64,44,000
20. Identification of MicroRNAs Signatures and Their Target Genes Modulating Spinocerebellar Ataxia Type-2 (SCA-2) Pathogenesis, Achal Kumar Srivastava, DBT, Three years, Jan 2014-Dec 2016, 72 lacs
21. CSF Testosterone in Motor Neuron Disease, Achal Kumar Srivastava, AIIMS, One, 2014-2015, 4 lacs
22. Indo US collaborative stroke registry and infrastructure development. DBT, Rs.16,15,600, (AIIMS Site)
23. Infrastructure development project for ‘Central Polysomnographic Monitoring facility, Garima Shukla, DST, 3 years , 2014-2017, 21 lacs
24. Knowledge, attitude and practices about epilepsy and stroke in ladakh: training and dissemination of information to community and paramedical staff. DST, Rs.27,25,800
25. Obstructive sleep apnea in patients with first ever stroke versus those with refractory hypertension: Search for common pathogenic mechanisms. Garima Shukla, ICMR, 3 years, 2013-2016, 42 lacs
26. Predicting functional outcome after acute stroke: evaluation of a module of clinic-radiological parameters and growth factors in Asian Indians. DST, Rs. 37,57,374
27. Prediction of motor recovery in upper limb through parameters obtained from clinical assessment, diffusion tensor imaging (DTI) & transcranial magnetic stimulation (TMS) in patients with acute ischemic middle cerebral artery (MCA) territory stroke, Achal Kumar Srivasatava, ICMR, 3 years, 2012-2015, 36 lacs
28. Quantitative Analysis of Neurodegenerative Phenotype in Spinocerebellar Ataxia Disorder: an Integrative approach to search for Monomorphic to complex phenotype by Neurological, Radioimaging, Neuropsychiatric and Kinematic Assessment of Ataxia, Achal Kumar Srivasatava, CSIR, 3 years, April 2013-April 2016, 20 lacs
29. Study on role of intensive physiotherapy and TMS on growth factors as biomarker for stroke recovery, ICMR, Rs. 38,56,078
30. Study on role of pathogens and inflammatory biomarkers in cerebrovascular diseases in young, ICMR, Rs. 1482309
31. Towards a sustainable resource in stroke genetics from the four corners of India: the 4i study, Kameshwar Prasad, UK India Education Research Initiative (UKIERI), 2 years, 2013-2015, 275000
32. Validation of a rapid diagnostic method for the detection of HLA allele and its association with cutaneous drug reactions in persons with epilepsy. Manjari Tripathi, DBT, 3 yrs, 2013-16, 1 Cr

Departmental projects

Ongoing

1. A randomized control investigation of role of transcranial magnetic stimulation in PD

2. Association between inflammatory gene polymorphism and risk of intracerebral hemorrhage in North Indian Population
3. Association between inflammatory gene polymorphism and risk of spontaneous intracerebral hemorrhage in north Indian population.
4. Bihemispheric repetitive transcranial magnetic stimulation (rTMS) to improve post-stroke upper extremity recovery : A randomized controlled trial.
5. Cardiovascular responses during orthostasis in patients of Parkinson's disease and Multiple system atrophy with Parkinson's disease
6. Characterization of tremor and gait in Spinocerebellar Ataxia type 12
7. Decovolution of autosomal recessive cerebellar ataxias in India: A clinical genetic approach and phenotypic genotypic correlation
8. Designing and validation of evidence based questionnaire for a population based cohort study in Delhi/NCR
9. Effect of administration of human bone marrow derived mesenchymal stem cell on the expression level and promoter methylation pattern of stroke related gene in middle cerebral artery occlusion model of stroke in rats.
10. Evaluation of autonomic function in patients of SCA types 1, 2 and 3 and comparison with morphological changes in brain
11. Identification of Genetic Contribution to Stroke by screening single nucleotide polymorphism of genes associated with inflammation: a case control study: a case control study
12. Identification of Genetic Contribution to Stroke by screening single nucleotide polymorphism of genes associated with inflammation: a case control study: a case control study
13. Identification of novel unstable tandem nucleotide repeat loci by genome wide screening and their implication in the pathogenesis of genetically uncharacterized progressive cerebellar ataxias
14. Identifying the rare genetic variant in stroke by Whole Exome Sequencing
15. Identifying the way of rare genetic variant in stroke by whole exome sequencing
16. Impact Of Educational Programme on Quality Improvement in Acute Stroke Care.
17. Neuropsychological assessment in Spinocerebellar Ataxia type 12.
18. Outcomes of Carotid stenting
19. Predictors of poor visual outcome at six months in patients with Idiopathic Intracranial Hypertension
20. Reliability and validity of 'AIIMS Insomnia evaluation questionnaire' in diagnosis and etiological classification of insomnia
21. Role of microRNAs in pathophysiology of neurodegenerative disorder: Spinocerebellar Ataxia type 2
22. To identify functional genetic elements in triplet repeat flanked haplotype region and mitochondrial genome in spinocerebellar ataxias
23. To Study the Effectiveness of Comprehensive Neuropsychological Rehabilitation as an Adjunct to Standard Pharmacological Treatment for Improving Language and Quality of Life in Patients with Post Stroke Aphasia : A Randomized Controlled Clinical Trial. Department of Neuropsychology, CN Centre, AIIMS.
24. To study the molecular correlation of Friedreich's Ataxia phenotype through mitochondrial genome and transcriptome analysis
25. To study the molecular pathophysiology of neurodegenerative disease Spinocerebellar ataxia type 12

Completed

1. Critical Care pathways for stroke care
2. Effect of sleep quality on cognitive performance in patients with refractory and controlled epilepsy
3. Evaluation of the diagnostic yield of a new Restless Legs Syndrome diagnostic Questionnaire and validation of its Hindi translation

4. Predictors of refractoriness in patients with temporal lobe epilepsy – a prospective case-controlled study in a North-Indian population
5. Risk factors for stroke in patients with rheumatic heart disease.
6. Serum alkaline phosphatase on a prognostic factor for stroke outcome
7. Study of risk factors associated with refractoriness in temporal lobe epilepsy
8. The natural history of Temporal lobe epilepsy – an ambispective questionnaire based study
9. Updated of stroke registry
10. Validation of a modified Hindi version of the Epworth Sleepiness scale among a North Indian population
11. Video semiology of PNES

Collaborative projects

Ongoing

1. A combined polysomnographic and radiographic study to evaluate the effect of arthroplasty on obstructive sleep apnea in temporomandibular joint ankylosis cases, Dept. of oromaxillofacial surgery, CDER
2. A Population Based Prospective Cohort Study to Unravel the Causes of Stroke and Cognitive Decline: A Cross Cultural Perspective, Erasmus University, The Netherlands
3. Role of surgical treatment of the upper airways in improving compliance /response to continuous positive airway pressure(CPAP) treatment in patients with obstructive sleep apnoea syndrome (OSAS) and intolerance or inadequate compliance to CPAP, Dept. of ENT, AIIMS
4. Study the SNP's in patients with ALS, IIT School of Biological Sciences. New Delhi.
5. Towards a sustainable resource in stroke genetics from the four corners of India: the 4i study, The Imperial College, London, UK
6. Utility of Pediatric sleep questionnaire as a screening tool for sleep disordered breathing in Down syndrome children, Dept. of Pediatrics, AIIMS

Completed

1. A Comparative Study To Assess The Knowledge Among Stroke And High Risk Patients Regarding Risk Factors, Warning Signs And Immediate Treatment Of Stroke, College of Nursing, AIIMS.
2. A cross-sectional comparative study of sleep disturbances in children with ADHD and matched controls, Department of Psychiatry, AIIMS
3. ENOS : Efficacy of Nitric Oxide in Stroke , Nottingham University, UK
4. Knowledge Regarding Oral Anticoagulation Therapy among Patients with Stroke and Those at High Risk of Thromboembolic Events ., College of Nursing, AIIMS.
5. Sleep Quality in Children with Attention Deficit Hyperactivity Disorder: Is one night polysomnography as good as two nights?, Department of Psychiatry, AIIMS

PATIENT CARE

Dr Garima Shukla-

- Drafted a detailed 'Guidance for care of unconscious or sick neurological patients at home' in Hindi and initiated the practice of handing these guidelines to all caregivers of sick patients at discharge.
- Introduced innovative methods in educating and counseling patients regarding various disorders, at the Sleep Disorders and Intractable epilepsy clinic.

Dr Rohit Bhatia

- Patient Education program on world stroke day.
- Patient Education program on world multiple sclerosis day.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Kameshwar Prasad delivered Oration of JIPMER Scientific Society titled “Journey through Hope, Hype and Truth: Stem Cells in Stroke” on 20 February 2015, JIPMER, Puducherry; Invited be a member of the WSO (World Stroke Organization) Global Quality Working Group; Conducted the first superspeciality OPD in Neurology at Central Coalfields, Ranchi; Invited as Chief Guest at the National Conference of the Snehi International; Continuing as: Member, Royal College of Physicians, Edinburgh.; Member of the World Stroke Organization; Member of the World Federation of Neurology; Member, International Advisory Committee, Asia Pacific forum for quality improvement in healthcare.; Member of the Infectious Diseases and ARI Review Group of the International Cochrane Collaboration.; Member of the International Clinical Epidemiology Network.; Member of the New York Academy of Sciences.; Member of the American Academy of Neurology.; Member, Cochrane Epilepsy Review Group.; Member, Cochrane Neurological Network.; Member of the Task Force on Chronic Disease Biology of the Department of Biotechnology, Govt. of India.; Member of the Executive Council of Assam University, Silchar (2010-13).; Member of the Technical Advisory Group to IndiaCLEN Health Research Capacity Building Initiative.; Director, Clinical Epidemiology Unit, AIIMS, New Delhi.; Chairman, Neurosciences Centre OPD Committee of AIIMS, New Delhi.; Member of the Executive Council of Pandit Bhagwat Dayal Sharma University of Medical Sciences, Rohtak.; Editor, Edinburgh-based Cochrane Stroke Group and Amsterdam-based Cochrane ARI Group.; Editorial Board Member - British Medical Journal, Practical Neurology, Cochrane ARI Review Group, Australia; Neurology India, Annals of Indian Academy of Neurology.; Reviewer for the medical journals - British Medical Journal, Stroke, Canadian Medical Association Journal, Journal of Epidemiology and Community Health, Journal of Antimicrobials and Chemotherapy, CNS Drugs, Cochrane Stroke, Neurology India, Annals of Indian Academy of Neurology, Journal of Association of Physicians of India, National Medical Journal of India.; Reviewer for the medical research grant - Indian Council of Medical Research, Department of Biotechnology, Department of Science and Technology, Medical Research Council, UK, Wellcome Trust, UK, University of Health, Singapore, Indo-Australian Research Group.; Life member of professional societies - Neurological Society of India, Indian Academy of Neurology, Indian Society of Medical Statistics, Indian Immunological Society, Indian Epilepsy Association, Indian Stroke Association, Indian Epilepsy Society.

Professor Madhuri Behari was Expert member to determine Causality of SAE –Death in drug trials in India Committee constituted by DCGI.; Lead Guest Editor for a Special Issue for BioMed Research(International in Neurology subject area of the journal.; Expert of ICMR for PAC in the area of Bio-Medical Engg”

Professor M.V. Padma Srivastava was Fellow of National Academy of Medical Sciences (FAMS); Fellow of the National Academy of Sciences, Allahabad, (F.N.A.Sc).; Neurological Society of India (NSI); Indian Epilepsy Association (IEA).; Indian Epilepsy Society (IES).; Indian Academy of Neurology (IAN).; Member of World Stroke Organization (WSO).; Indian Stroke Association – President for the year 2013-2014.; Invited Member of the Geriatric Society of India; Delhi Neurological Association; **Member**, Publication Committee of NAMS, Speciality Advisory Board for “Neurology” by NBE; “Task Force Neurosciences” in DBT; “Standing Committee” for the “CME Programme Committee” for NAMS.; “Standing Committee” for the “Publication Advisory Committee” for NAMS.; “Task Force for Neurosciences” for ICMR; Building Committee, NAMS.; FIST committee, DST; Dean Committee, AIIMS.; Staff Council, AIIMS.; Drug Selection Committee, AIIMS.; “Task Force for Translational Neurosciences”, for ICMR.; “Scientific Advisory Board” for Thrombosis Research Institute Bangalore.; Expert Advisory Panel, for “Regenerative medicine and Toxicology” for Fellowship to NAMS; “Institute Body” of SCTIMS.; Mentor for Neurology departments of Indira Gandhi Medical College Shimla and R.P. G Medical College Tanda, Govt. of Himachal Pradesh.; Member, Academic Committee, NIMHANS, Bangalore.; Member, Standing Selection Committee, NIMHANS, Bangalore.; Appointed as External Examiner for DM Neurology in SGPGI, Lucknow.; Appointed as External Examiner for DM Neurology in GB Pant Hospital, New Delhi.; Appointed as External Expert for Initiation of DM Course in Gujarat University, Anand.; Appointed as External Examiner for DM Neurology, in VJ Medical College, Ahmedabad.; Appointed as External Examiner for DNB Course in Neurology in NIMHANS Bangalore, NIMS Hyderabad, PGIMER Chandigarh.; Appointed as External Examiner for DM Neurology in NIMS Hyderabad, SCTIMS Thiruvananthapuram, PGIMER Chandigarh, DMC Ludhiana, Bangur Institute Kolkatta.; Appointed as External Examiner for PhD programs in KGMC Lucknow, NIMS Hyderabad, SGPGI Lucknow.; Member, Fellowship Scrutiny Committee, NASI, Allahabad, 2015.; Editorial board: NAMS, Stroke – International , API Text book of Medicine – Sectional Editor for Neurology, Stroke Research and Treatment – Hindawi Publications.; Indian Stroke Association – President for the year 2013-2014.; Member of the “Speciality Advisory Board” for “Neurology” by the NBE, Govt. of India.; Member “Task Force Neurosciences” in DBT,

Govt. of India.; Member of the “Standing Committee” for the “CME Programme Committee” for NAMS.; Member of the “Standing Committee” for the “Publication Advisory Committee” for NAMS.; Member “Task Force for Neurosciences” for ICMR, Govt. of India.; Member, Building Committee, NAMS, Govt. of India.; Member, FIST committee, DST, Govt. Of India.; Member, Dean Committee, AIIMS.; Member, Staff Council, AIIMS.; Member, Drug Selection Committee, AIIMS.; Member “Task Force for Translational Neurosciences”, for ICMR, Govt. Of India.; Member “Scientific Advisory Board” for Thrombosis Research Institute Bangalore.; Member – Expert Advisory Panel, for “Regenerative medicine and Toxicology” for Fellowship to NAMS; Appointed as External Expert for Initiation of DM Course in Gujarat University, Anand.; External Examiner DM Neurology SGPGI, Lucknow, GB Pant Hospital, New Delhi, VJ Medical College, Ahmedabad, NIMHANS Bangalore, NIMS Hyderabad, PGIMER Chandigarh, SCTIMS Thiruvananthapuram, DMC Ludhiana, Bangur Insitute Kolkatta, External Examiner for PhD programs in KGMC Lucknow, NIMS Hyderabad, SGPGI Lucknow; Appointed as Co Chair, Scientific Committee for the World Stroke Conference, 2016.; Appointed Member of Academic Committee, NIMHANS, Bangalore.; Appointed Member of Selection Committee, NIMHANS, Bangalore.; Elected Member of NAMS Academic Council, 2014.; Member Fellowship Scrutiny Committee, NASI Allahabad, 2015.

Professor Garima Shukla Invited to chair an expert committee to review project proposals from all across India for establishment of Multi-disciplinary research units by the Indian Council for Medical Research - 2014 – current.; Invited as Examiner, for the DM (Neurology) examinations, at the - NRS and Calcutta Medical Colleges, Kolkata, July 2014 and Dept of Neurology, AIIMS for December 2014.; PhD student, Dr. Anupama Gupta, became one of the few first students from across the world, to successfully clear the World Association of Sleep Medicine International Sleep Medicine Certification Examination.; Student Md. Afsar, received gold medal for M. Phil in Clinical Psychology at the NIMHANS Convocation, from Hon’ble Prime Minister of India, for his outstanding performance at the course and examination.

Dr Rohit Bhatia was selected for the quality and safety award for work in stroke by the American Academy of Neurology for the year 2015.; Nominated as the lead of the central nervous system group for the development of guidelines on the management of extra-pulmonary tuberculosis by the Govt of India.; Continued as the executive committee member of the Indian Stroke Association, member of the ethics committee for post-graduate research at AIIMS, member of the DOTS core committee AIIMS, Dean’s research committee AIIMS, editing committee of the annual report at AIIMS.

Dr Deepti Vibha was Member of Indian Academy of Neurology.; Member of Movement Disorders Society.; Member of American Academy of Neurology.; Was selected for training in Clinical Epidemiology at the Erasmus Medical Center, Rotterdam, Netherlands.

VISITING SCIENTIST

1. Dr HS Subramony *Professor* of Neurology McKnight Brain Institute and University of Florida College of Medicine Gainesville, Florida, USA

Neuropsychology

HIGHLIGHTS

In the last one year a separate Specialized Clinic: Cognitive Disorders and Memory Clinic (‘CD’ & ‘M’ Clinic) (by the departments of Neurology and Clinical Neuro Psychology) on every Wed Mornings in room no. 5 and 14 has formally started. In the last one year Received Psycho Oration and admitted 2 new Phd students in Clinical Neuropsychology

EDUCATION

Undergraduate Teaching: Psychology Course Syllabi of BSc (Hons) Ist Yr.; MBBS Teaching; B.Sc (Hons./ Post Certificate) Nursing.

Postgraduate Teaching: MD, MCh, MSc (Nursing)

Short Term Training (Clinical Neuro Psychology)

Prepared and Running Teaching Course Curriculum for PhD Clinical Neuro Psychology, Neuro Sciences Center, AIIMS, New Delhi with the consent of the students.

CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered: 21

Oral papers/posters presented: 26

RESEARCH

Funded projects

1. Preclinical Predictors of progression of cognitive decline in MCI and AD Using a Multitasking paradigm. Dr Ashima Nehra Wadhawan, Department of Science & Technology Project, Ministry of Science & Technology, Government of India., Dr. Ashima Nehra, *Department of Science&TechnologyProject*, 3years, 2016, 37 lac

Departmental projects

Ongoing

1. Development and Effectiveness of ‘Comprehensive Neuropsychological Rehabilitation ’ as an Adjunct to Standard Pharmacological Treatment for Improving Language and Quality Of Life in Patients with Post Stroke Aphasia : A Randomized Controlled Clinical Trial
2. Development and Effectiveness of ‘Holistic and Integrated Neuropsychological Rehabilitation’ for improving Cognitive and Psychological Functioning in Patients with Mild & Moderate Traumatic Brain Injury: A Randomized Controlled Clinical Trial
3. Development of a Computerized Cognitive Bias Modification (CBM) training in Alcohol Dependent Men and evaluating its efficacy through a Randomized Controlled Trial (RCT)
4. To Study The Effectiveness Of Cognitive Rehabilitation On Memory, Language, Attention And Quality Of Life In Patients With Mild Alzheimer Disease As Compared To Standard Pharmacological Treatment: A Randomized Controlled Clinical Trial.

Collaborative projects

Ongoing

1. “Assessment of risk factors associated with obesity and intervention of nutritional and lifestyle modification with or without bariatric surgery amongst adult population. (A non randomized controlled clinical trial).”, Clinical Neuropsychology, Dietetics, General Surgery, Physiology
2. A comparison of three different techniques of bidirectional cavopulmonary anastomosis (bdglenn) on cardiopulmonary bypass in patients undergoing, Cardiothoracic surgery, Cardiac Biochemistry and Clinical Neuropsychology, Cardiac-Anaesthesia
3. Clinical Neuropsychology, Psychiatry, Quantitative EEG correlates of cognitive performance in Mild Cognitive Impairment and Alzheimer’s Disease, Clinical Neuropsychology, Physiology, Bio statistics,
4. Cognitive Impairment in Spinocerebellar Ataxia Type 12, Clinical Neuropsychology, Neurology, Effect Of Anti Epileptic Drugs (AEDs) On Metabolic Parameters In Obese Persons With Epilepsy (PWEs) : A Cross Sectional, Comparative Study, Clinical Neuropsychology, Neurology, Pharmacology
5. Comparison of Bidirectional Superior Cavopulmonary Anastomosis with or without cardiopulmonary Bypass, Cardiothoracic surgery, Cardiac Biochemistry and Clinical Neuropsychology, Cardiac-Anaesthesia
6. Effect of high-frequency repetitive transcranial magnetic stimulation on negative symptoms and cognitive functioning in schizophrenia
7. Efficacy, Safety and Tolerability of Modified Atkins Diet (MAD) in Adolescence and Adults with Drug Resistant Epilepsy: Randomized Controlled Trial, Clinical Neuropsychology, Neurology, Pediatrics
8. Impact of nutritional and lifestyle modification in subjects with BMI 25-29.9kg/m² vs 30-34.9kg/m² and to assess the effect of bariatric surgery in BMI \geq 35kg/m², General Surgery, Dietetics, Clinical Neuropsychology, Bio Statistics, Physiology
9. Quantitative EEG Correlates of Emotions Induced Changes in Normal Healthy Volunteers, Clinical Neuropsychology, Physiology

10. Stress and its contribution in persons with Mild Cognitive Impairment and Dementia, Biophysics, Neurology, Psychiatry,
11. Study To Evaluate The Feasibility Of Reduced Dose Whole Brain Radiotherapy In Patients Of Newly Diagnosed Primary Cns Lymphoma After Complete Response To Methotrexate Based Polychemotherapy, Clinical Neuropsychology Radiation Oncology, Medical Oncology, Pathology, Biostatistics, Neurosurgery, Neuroradiology

PATIENT CARE

Clinical Neuropsychology is a specialized referral service which focuses on clinical application, including diagnostic formulation, assessment, cognitive retraining in brain functioning following brain attack/ insult/ injury. 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 & Learning, Motor & Sensory Skills, Perceptuo-motor Functioning/Visuo-spatial skills, Mood & 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 :

a. Monday, Tuesday, Wednesday and Friday:

2. Specialized Clinics:

a. Tuesday: Neuropsychological Rehabilitation (**NR**) Clinic

Neuropsychological Rehabilitation, Cognitive Retraining/Restructuring

- a. Basics Skill Training
- b. Functional Re-training
- c. Speech and Language Rehabilitation
- d. Psychosocial Therapy
- e. Guidance and Counselling
- f. Individual Therapy
- g. Family Therapy
- h. Vocational Guidance
- i. Holistic/eclectic Approach Therapy (depending on the patient's needs)

b. Wednesday: Cognitive Disorders and Memory (**CDM**) Clinic Cognitive Disorders and Memory Clinic

- a. Memory Assessment
- b. Screening for Cognitive Decline
- c. Cognitive Rehabilitation for Dementia/ Alzheimer's Dementia
- d. Cognitive Re-training for decline in Memory/Executive Functioning
- e. Management of Cognitive/ Memory Disorders
- f. Identify and treat pseudo-dementia

- g. Education: patients, carers, trainees, colleagues, and the general public.
- h. Family guidance
- i. Monitoring of progress and response to therapy

The clinical/ pharmacological aspect of which would be taken care by the Neurologist

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 & 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

1. Ashima Nehra. Psycho Oration Award, 8th February, 2015 Presented at 41st National Annual Conference of The Indian Association of Clinical Psychologists, at Gandhinagar, Gujarat., Psycho Oration Award
2. Swati Bajpai. Won Gandhi Scholarship Award on 3rd Annual Conference of Indian Federation of Neurorehabilitation (Affiliated to World Federation of Neurorehabilitation), March 7th, 2015., Gandhi Scholarship Award
3. Swati Bajpai, Manjari Tripathi & Ashima Nehra (2015 Cognitive Rehabilitation: A State Of The Art For Long Term Management Of Alzheimer Disease For Indian Population. 12th International Conference on Alzheimer's & Parkinson's Diseases scheduled to take place in Nice, France, March 18 – 22, 2015., Bursary Award
4. Swati Bajpai & Ashima Nehra (2015) "Development Of Re-Creat (Rehabilitation Of Cognition Using Restorative Exercises & Activities Targeted For Elderly): Cognitive Rehabilitation For Low Literate Indians". 12th International Conference on Alzheimer's & Parkinson's Diseases scheduled to take place in Nice, France, March 18 – 22, 2015., Bursary Award

VISITING SCIENTIST

Talk by a visiting Neuropsychologist and his colleague **Dr. Mel Kaushansky, Practising Neuro Psychologist** and **Ms. Julia Zarudzka**, Special Educational Consultant, (this talk was organized since he was already visiting India); Entitled, "Paediatric Traumatic Brain Injury: From Theory to Practice, Hospital to School", Venue: C Met; Dated: Nov 14, 2014, Organized by Clinical Neuropsychology, Neurosciences Center, AIIMS, New Delhi; as a part of Continuing Medical Education (Neuropsychology).

Neuroradiology

HIGHLIGHTS

- A state-of-art 128 slice dual energy scanner installed replacing the 10 year old 6 slice scanner.
- With the new CT low-dose CT protocols with modelled iterative reconstruction & a dose reduction potential of up to 60% & faster acquisition in clinical routine is now possible and the best image quality is 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 has 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 & OPD rooms of NSC with upgrade of the PACS server & installation of viewing stations in wards, ICUs & 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 & network all studies on-line. Auto-requisitioning enabled from NSC wards on-line for CTs, MRIs, US& 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.
- Dr Dileep R. Yavagal, MD, Associate Professor of Clinical Neurology and Neurosurgery, Director Interventional Neurology, Co-director Endovascular Neurosurgery, Faculty, Interdisciplinary Stem Cell Institute, University of Miami & Jackson Memorial Hospitals, 1120 NW 14th Street, Miami, FL 33136 visited the department on 12th March 2015 & discussed first hand about possibilities of collaboration in stem cell research in stroke, which is his present area of interest. Based on this interaction, a collaborative research project titled – ‘STEM-Stroke: A Safety and Efficacy Trial of Intra-Arterial Mesenchymal Stem Cells in Ischemic Stroke’ has been proposed to be approved in the Indo-US collaboration following President Obama’s visit to India in January 2015 & the MOU signed on Academic co-operation & collaborations in Medical Education, Clinical Research & Training by the two governments. Development of a Comprehensive Stroke Center program, in collaboration with Dr. Ajay Wakhloo, Division of Neurointervention and Imaging, Department of Radiology H2-144, 55 Lake Avenue North, University of Massachusetts Medical School, Worcester, MA 01655, USA & Radiogenomic Characterization of Glioblastoma Multiforme through Integrated MR Imaging and Genomic Profiling in collaboration with Dr. Anders Dale, vice chair for research & Dr. William G. Bradley, Jr, Professor and Chair, Department of Radiology, University of California San Diego Health System, 402 Dickinson St #454, San Diego, CA 92103-8224, USA also have been proposed.

EDUCATION

Undergraduates: 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 were taken. Basics of neuro imaging interpretation taught during their elective posting in neuroradiology.

Postgraduates: Postgraduate students of M.D. Radiology posted in the department of Neuroradiology on rotation are trained on reporting neuroimaging (CT & MRI) & introduced to all neuroimaging protocols & are encouraged to perform them under supervision of the faculty. DM (Neuroradiology) students are trained to perform all neuroimaging procedures & 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 & case discussions are organized routinely for their orientation to the current developments & 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

1. Organizing chairman of the 17th annual congress of the Indian Society of Neuroradiology (ISNR), 9 – 12 October, 2014 at The Oberoi, Gurgaon, NCR.

Lectures delivered

N.K. Mishra: 3

Shailesh Gaikwad: 6

Ajay Garg: 11

Leve Joseph Devarajan: 2

Oral papers/posters presented: 20

RESEARCH

Funded projects

Ongoing

1. Efficacy of imaging assessment of neoangiogenesis and permeability to differentiate treatment related changes from tumor recurrence in high – grade glioma, Ajay Garg, ICMR, 3, 2014-17, 14 lacs

Completed

1. Efficacy of Imaging Assessment of Neoangiogenesis and Permeability to Pre-operatively Grade Cerebral Glioma, Ajay Garg, Intramural Project, 2, 2013-14, 4.8 lacs

Departmental projects

Ongoing

1. Carotid Plaque Imaging in acute stroke

Completed

1. Vein of Galen Aneurysmal Malformation -A Retrospective Study
2. Spinal Cord Arteriovenous Shunts-A Retrospective Analysis

Collaborative projects

Ongoing

1. fMRI for memory evaluation in patients with Obstructive Sleep Apnea (Medicine)
2. Predictors of poor visual outcome at six months in patients with Idiopathic Intracranial hypertension (Neurology)
3. Unraveling the causes of Stroke and Cognitive decline in the General Population- A cross-cultural perspective study (Neurology)
4. Prevalence of Symptomatic and asymptomatic coronary artery disease in patients with stroke and transient ischemic attacks (Neurology)
5. Randomized Two Arm Parallel Group Clinical trial to evaluate efficacy of trans-sphenoidal microscopic endoscopic surgery using high field intra-operative magnetic resonance imaging guided resection as compared to two dimensional fluoroscopic guidance in extent of tumor resection in Non-functioning Pituitary macro adenoma (Neurosurgery)
6. Distraction, Compression, Extension, Reduction (DCER) Combined With Joint Re-modelling and Extra-articular Distraction: Description of 2 New Modifications for Its Application in Basilar Invagination and Atlanto-Axial Dislocation: Prospective Study (Neurosurgery)
7. Assessment of white matter integrity through diffusion tensor imaging in schizophrenia patients with auditory hallucinations (Psychiatry)
8. Predictors of poor visual outcome at six months in patients with Idiopathic Intracranial hypertension (Neurology)

Completed

1. Arteriovenous malformations of Brain: Factors associated with post gamma knife radiation changes (Neurosurgery)
2. Intra medullary Spinal cord Tumours: Our experience of 100 cases and review of literature (Neurosurgery)
3. Primary Intradural extra medullary lesions: Five year experience at a tertiary care hospital- A retrospective study (Neurosurgery)
4. Retrospective analysis of operated cases of Giant Pituitary adenoma : An institutional experience (Neurosurgery)

PATIENT CARE

The department works 24x7, 365 days for patient care work & regularly attends to emergencies like subarachnoid haemorrhage, stroke, acute encephalopathies, myelopathies, traumatic or iatrogenic cerebro-vascular injuries etc. All requests for CT scan from out patients & in-patients is done the same day & 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 & spinal vascular studies for patients attending the Neurosciences Centre and also other departments like ENT & Ophthalmology, many immediately at any hour depending on contingency. 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 amongst others, also in emergency. 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 & images are uploaded to the PACS network. Portable Ultrasound is done whenever required for sick & immobile patients in the wards & ICUs of the Neurosciences Centre. All consultants & 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 & residents can easily see their patient's images in chronological sequence & in comparison mode on the large projection screen. Even old images & scanned private images can be viewed efficiently instantaneously which helps quick decision making.

Neuroimaging & Interventional procedures performed during the year 2014-15

C T Scans	Routine	5996
	Emergency	13783
	CT Angiography	72
	Image Guided	237
	Mobile CT	1019
	HRCT	14
	Total	21121
Digital Subtraction Angiography	Cerebral & Spinal DSAs	746
	Therapeutic Neuro-Interventional procedures: (Cerebra Aneurysms, Cerebral & Spinal AVM embolizations, Carotid revascularization etc.)	132
	Chemical Angioplasty for cerebral vasospasm (in SAH)	46
	Cerebral Intra-arterial Thrombolysis / clot retrieval in stroke	12
	Total	928
Ultrasound Examinations / Doppler studies / US guided biopsies		1866
MRIs	NSC MRI	1272
	Gama Knife planning	453
	Intra-Operative MRI (OT)	365
	NMR facility	1495
	Total	3585
X Rays		19255
	Total for the year =	46,755

Cases discussed & reviewed in Neuroradiology conferences for patient care decision making

	No. of cases	Weekly Frequency	Total
Epilepsy Case Conference	@ 10	1	10/week
Neurosurgery conferences	@ 25	4	100/ week
Neurology conferences	@ 15	6	90/ week
Neuropathology conference	@ 4	biweekly	8/ week
		Total	208/ week
		Total = 60,944 cases / yr	

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor N.K. Mishra Worked also as the Chairman of the Engineering Advisory Committee of the Institute and as member of various departmental promotion committees. He was nominated as a member of the Expert group to prepare syllabus, Teacher Eligibility Qualifications (TEQ) and Minimum Standard Requirements (MSR) for DM. in Neuroradiology by the Medical Council of India. He has been and continued to be invited reviewer for scientific journals – ‘Neurology India’, ‘Indian Journal of Medical Research’, ‘Indian Journal of Radiology & Imaging’ & ‘The Neuroradiology Journal’, published from Germany as well as the journal ‘Clinical Neurology & Neurosurgery’, an Elsevier journal. He presented two e-posters : ‘Complications in spinal AVM embolization’ & ‘Spinal macro-fistulae’ at the 2nd World AVM Congress 18th -20th June 2014, at the Palais des Congrès de Nancy, 17-19 rue Grand Rabbin Haguenauer, 54000 Nancy, France. Participated & moderated scientific sessions at the XIth monsoon meeting of the India Neurointerventional Foundation (INIF), 31st July – 3rd August, 2014, Goa. Two scientific poster presentations- “Posterior circulation dissecting aneurysms: review of 87 cases” & “Pan-encephalopathic type of Cruzefteldt Jacob disease in Indian Subpopulation” were accepted at the XXth Symposium Neuroradiologicum of the World Federation of Neuroradiological Societies (WFNRS), September 7 – 12, 2014, Istanbul, Turkey. He was also invited as moderator for the “Paediatric diagnostic Neuroradiology session” at this congress. Addressed the inaugural ceremony of the 2nd AIIMS Neurotrauma conference & cadaveric workshop, 30th October – 2nd Nov. 2014, as the Chief of the Neurosciences Centre. Invited guest faculty & moderator to the Ramachandra Advanced Interventional Neuroradiology course (RAIN), 13 – 16 Nov. 2014 at the Sree Ramachandra Medical College & University, Porur, Chennai. Addressed the inaugural ceremony of the 17th annual microneurosurgery workshop, 13th Feb. 2015, as the Chief of the Neurosciences Centre. Chaired session on “Imaging Motor & Non Motor Systems in Parkinsons’ Disease” –at the Indo-Euro Park Summit, 14–15 March 2015, New Delhi. Addressed the inaugural ceremony of the first epilepsy surgery workshop, 4th April 2015, as the Chief of the Neurosciences Centre at AIIMS, New Delhi. Guest of Honour at the “Tropicon 2015”-India Habitat Centre, New Delhi, 11-12 April 2015.

Professor Shailesh B Gaikwad was invited as examiner/external expert to conduct following exams: Conducted theory/practical viva voce exam on “Interventional Radiology” fellowship held on 1st July 2014 at Department of Radiology, CMC, Vellore.; “DM Neuroradiology” on 20st July 2014 at NIMHANS, Bangalore.; External expert for selection of faculty under APS in the department of Neuroradiology, held on July 23rd 2014 at NIMHANS, Bangalore.; External expert for selection of faculty under APS & direct recruit in the department of Neuroradiology, 8th March, 2015 at NIMHANS, Bangalore.; was invited as an external expert for the technical evaluation & purchase of following equipments and creation of new facility at several institutions within India: Technical Committee Meeting for the proposed establishment of “Intra Operative MRI Facility” on 7th December 2014, NIMHANS, Bangalore.; Technical Evaluation Committee Meeting for the purchase of “Biplane DSA system with 3D rotational angiography facility” on 22nd December 2014, in department of Radiology, SGPGI, Lucknow.; Purchase committee meeting of “Latest State of art Intra Operative MRI Facility at NIMHANS” to be held on 10th & 11th February 2015, NIMHANS, Bangalore.; Purchase Committee Meeting for the proposed establishment of “Latest State of art Intra Operative MRI Facility at NIMHANS” on 4th March 2015 at NIMHANS, Bangalore.; Purchase Committee Meeting for the proposed establishment of “Latest State of art Digital Subtraction Angiography Facility at NIMHANS” Bangalore on 4th March 2015.; Purchase Committee Meeting for the proposed establishment of “Latest State of art Digital Subtraction Angiography Facility at NIMHANS” Bangalore on 8th March 2015.; Technical committee member for purchase of PET-MRI, for Nuclear Medicine department, AIIMS.; He is a member of Indian Radiological and Imaging Association (IRIA).; Neurological Society of India (NSI).; Indian Epilepsy Society (IES). ; Indian Society of Vascular and Interventional Radiology (ISVIR).; Indian Society of Neuroradiology.; Delhi Neurological Association.; Indian Society of Paediatric Radiology.; World Federation of Interventional and Therapeutic Neuroradiology (WFITN).; Asia Pacific Society of Cardiovascular and Interventional Radiology (APSCVIR). Prof Gaikwad has served on several committees: SPC.; Surgical condemnation committee.; AIIMS Gymkhana-Vice Chairman.; Department stores.; Chairman of technical committee for purchase of MDCT for department of Neuroradiology.; Purchase of Neurointervention items (consumables) for the department. On committee for preparing proposal and EFC Memorandum for development of: New Diagnostic Block at Masjid Moth, AIIMS, New Delhi.; National Neurosciences Institute, Jhajjar, Haryana.; Emergency Block, at Masjid Moth, AIIMS, New Delhi.; Plan proposal and EFC Memorandum submitted for the above projects

VISITING SCIENTIST

Dr. Dileep R. Yavagal, MD, Associate Professor of Clinical Neurology and Neurosurgery, Director Interventional Neurology, Co-director Endovascular Neurosurgery, Faculty, Interdisciplinary Stem Cell Institute, University of Miami & Jackson Memorial Hospitals, 1120 NW 14th Street, Miami, FL 33136 visited the department on 12th March 2015 & discussed first hand about possibilities of collaboration in stem cell research in stroke, which is his present area of interest. Based on this interaction, a collaborative research project titled – ‘STEM-Stroke: A Safety and Efficacy Trial of Intra-Arterial Mesenchymal Stem Cells in Ischemic Stroke’ has been proposed to be approved in the Indo-US collaboration following President Obama’s visit to India in January 2015 & the MOU signed on Academic co-operation & collaborations in Medical Education, Clinical Research & Training by the two governments. Development of a Comprehensive Stroke Center program, in collaboration with Dr. Ajay Wakhloo, Division of Neurointervention and Imaging, Department of Radiology H2-144, 55 Lake Avenue North, University of Massachusetts Medical School, Worcester, MA 01655, USA & Radiogenomic Characterization of Glioblastoma Multiforme through Integrated MR Imaging and Genomic Profiling in collaboration with Dr. Anders Dale, vice chair for research & Dr. William G. Bradley, Jr, Professor and Chair, Department of Radiology, University of California San Diego Health System, 402 Dickinson St #454, San Diego, CA 92103-8224, USA also have been proposed.

Neuroanaesthesiology

HIGHLIGHTS

Anaesthetic management for 5068 (3758 at the Neurosciences centre and 1310 at the JPNATC) neurosurgical procedures was performed. Of these 3497 were elective (2838 at the Neurosciences centre and 659 at the JPNATC) and 1571 were emergency (920 at the Neurosciences centre and 651 at the JPNATC). Anaesthetic management for 467 neuroradiological procedures (276 diagnostic; 191 therapeutic) was performed. Intensive care management of 5956 patients (4000 NSC; 1281 TC3 & 675 TC2, JPNATC) was performed. A total of 3217 patients (2222 new and 995 old) were seen in Pre-Anaesthesia check-up (PAC) clinic OPD at NSC. A total of 709 patients (153 new and 556 old) were seen in pain clinic OPD, NSC and 291 of them were treated with nerve blocks.

Six candidates were awarded D.M. (Neuroanaesthesiology) degree. Seven new candidate joined D.M. course. Twenty-one postgraduate students and 10 senior residents from other anaesthesia departments received neuro-anaesthesia training.

Twelve research projects (01 funded, 11 departmental) were completed while 28 research projects (06 funded, 14 departmental and 08 collaborative) were going on.

The department successfully organized AIIMS Neuroanaesthesia Update-2014. Twenty two conferences (05 international, 17 national), 01 symposium and 20 other CMEs were attended (97 lectures delivered and 38 papers presented) by faculty members and senior residents. Four workshops were conducted by the department faculty. Faculty and residents published 50 articles (25 international, 25 national in scientific journals). Eight abstracts were published in international scientific journals. Six chapters in books were written by faculty.

Two faculty members continued to be general secretary and treasurer of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC) respectively. One faculty continued to be chief editor and 02 faculty members continued to be executive editors of a national journal.

Three awards for presentations in national conferences were won.

EDUCATION

Postgraduate Teaching: Twenty-one MD-Anaesthesiology students (12 from Anaesthesiology department, AIIMS and 09 from LHMC) received neuroanaesthesiology training in the department, as an integral part of their curriculum. Ten Senior Residents (08 from Department of Anaesthesiology, AIIMS & 02 from Department of Anaesthesiology Dr. BRAIRCH received training in Neuroanaesthesiology for variable periods as a part of interdepartmental rotation on mutual exchange basis. Thrice a week (Mondays, Tuesdays, Saturdays) Seminars, Journal club and case presentations (For one hour at a time) were organized as a part of departmental teaching program.

Skill workshops:

1. Cricothyroidotomy. AIIMS Critical Care Course for Surgeons. 25 Nov 2014. JPNATC. New Delhi
2. Basics of mechanical ventilation. AIIMS Critical Care Course for Surgeons. 26 Nov 2014. JPNATC. New Delhi
3. Cricothyroidotomy. AIIMS Critical Care Course for Surgeons. 1 Dec 2014. JPNATC. New Delhi
4. Basics of mechanical ventilation. AIIMS Critical Care Course for Surgeons. 2 Dec 2014. JPNATC. New Delhi

Conferences, Seminars, Workshops organized by the department

1. The department successfully organized AIIMS Neuroanaesthesia Update-2014 from 30.08.2014 to 31.08.2014.

Lectures delivered

Pramod Kumar Bithal: 6

Hemanshu Prabhakar: 4

Keshav Goyal: 9

Richa: 6

Indu Kapoor: 1

Mihir Prakash Pandia: 5

Gyaninder Pal Singh: 7

Niraj Singh: 4

Kapil Dev Soni: 28

Girija Prasad Rath: 6

Ashish Bindra: 12

Navdeep Sokhal: 5

Charu Mahajan: 2

Oral papers/posters presented: 38

RESEARCH

Funded projects

Ongoing

1. Effect of transcutaneous electrical nerve stimulation (TENS) on intraoperative fentanyl consumption in patients undergoing lumbar discectomy, R.S. Chouhan, Indian Society of Neuroanaesthesiology and Neurocritical Care (ISNACC), 02 years, 2015-2017, 50,000/-
2. Comparison of Pleth Variability Index and Stroke Volume Variation as Predictors of Fluid Responsiveness in Prone Position, Girija Prasad Rath, ICMR, One, 1.12.2015- 30.11.2015, 5,45,475/-
3. A randomized controlled study of the effects of single dose preoperative vitamin C versus placebo on postoperative morphine consumption after spine surgery, NIRAJ KUMAR, AIIMS, 1YR, 2014-2015, 2,80,000/-
4. Does real time ultrasonography during bronchoscopy guided percutaneous tracheostomy confer any benefit; a preliminary randomised controlled trial, Richa Aggarwal, AIIMS, 2, 2013-2015, Rs 83000
5. Role of microdialysis derived metabolic parameters in predicting postoperative complications following laprotomy; Feasibility and pilot study, Kapil Dev Soni, AIIMS, 2, 2013-2015, Rs 5 lac
6. Role of microdialysis derived metabolic parameters in predicting postoperative complications following laparotomy in the trauma patients A feasibility and pilot study, Kapil Dev Soni, INTRAMURAL AIIMS, 1, 2014, 5 lakh
7. Effect of Lidocaine infusion on hemodynamics and recovery in patients undergoing endoscopic pituitary surgery: A multicentre, randomized control trial, Keshav Goyal, 2 Years, 7 Feb 2013
8. Assessment of airway in patients with acromegaly undergoing surgery: predicting successful tracheal intubation, Indu, Non-funded, 3 years, 2015-2018

Completed

1. To study the cerebroprotective effects of Dexmedetomidine in patients undergoing epilepsy surgery-A biomarker guided study, Ashish Bindra, All India Institute of Medical Sciences (Intramural funding), 2 years, Jan 2013 March 2015, 3 Lakhs

Departmental projects

Ongoing

1. A comparison of the effectiveness of dexmedetomidine versus propofol infusion for sedation during awake craniotomy

2. Anaesthetic management of paediatric patients with traumatic brain injury in a tertiary level trauma centre – A retrospective study.
3. Anatomical variations of internal jugular vein in relation to carotid artery and its implication on ultrasound guided cannulation: an observational study.
4. Cardiovascular complications after traumatic spinal cord injury.
5. Does real time ultrasound confer any benefit during bronchoscopy guided tracheostomy; a preliminary randomised controlled trial.
6. Effect of dexmedetomidine on cerebral autoregulation and CO₂ reactivity during sevoflurane anaesthesia
7. Effect of goal directed intraoperative fluid therapy on hospital stay in patients undergoing excision of large intracranial tumours
8. Effect of intraoperative aneurysm rupture on perioperative complications and neurological outcome in adult patients undergoing surgical clipping for aneurysmal subarachnoid haemorrhage.
9. Effects of dexmedetomidine for ICU sedation in head injury patients
10. Intracranial pressure monitoring in patients with severe traumatic brain injury: a retrospective study
11. Intraoperative use of dexmedetomidine in large vascular Meningiomas.
12. To study the risk factors and causes of extubation failure in head injury patients.
13. A week in neurocritical care unit: Point prevalence observational study in Neurocritical care: PRINCE Study. July 2014.
14. Comparison between sevoflurane and desflurane on emergence and recovery characteristics of children undergoing spinal surgery

Completed

1. Effect of intraoperative blood loss on perioperative complications and neurological outcome in adult patients undergoing elective brain tumour surgery – A Retrospective study.
2. Effect of stellate ganglion block on intraoperative propofol and fentanyl consumption in patients with CRPS II undergoing surgical repair of brachial plexus injury.
3. Effect of tranexamic acid on intraoperative blood loss and transfusion requirements in patients undergoing excision of intracranial meningioma.
4. Evaluation of Non neurological complications in patients of severe head injury.
5. Incidence and predictors of postoperative pulmonary complications following surgery for posterior fossa tumours in adult patients: A retrospective analysis.
6. Perioperative complications in elderly patients undergoing cervical spine surgery
7. Perioperative Factors and Outcome in Elderly Patients Undergoing Intracranial Surgery- A Prospective Observational Study.
8. Prognostic value of serially estimated serum procalcitonin in multiple trauma victims with and without head injury.
9. Sitting position in paediatric neurosurgical patients - a retrospective study

Collaborative projects

Ongoing

1. Effect of stellate ganglion block for cerebral vasospasm following aneurysmal sub-arachnoid haemorrhage on cardiac rhythm: A Holter-Based study, Cardiology, A.I.I.M.S.
2. 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
3. Prospective study on the effectiveness of chlorhexidine gluconate impregnated patch (BIOPATCH[®]) in reducing the incidence of central line associated blood stream infection (CLABSI), Department of Microbiology, JPNTC, AIIMS

4. Surveillance of blood stream infections (BSI) at a referral Indian hospital, Department of Microbiology, JPNATC, AIIMS
5. A week in neurocritical care unit: Point prevalence observational study in Neurocritical care: PRINCE Study. July 2014. Baylor College of Medicine, Houston, Texas.
6. Electrolyte abnormalities in patients with head injury during ICU stay: a prospective observational study, Lab Medicine, JPNATC, AIIMS
7. Role of CD14high CD16+ blood monocytes in regulation of anti-inflammatory cytokines in post traumatic patients., Microbiology, Surgery
8. Role of microdialysis derived metabolic parameters in predicting postoperative complications following laparotomy in the trauma patients” A feasibility and pilot study, Surgery, Neurosurgery

PATIENT CARE

The department provides anaesthesia care in 07 operating rooms at NSC, 02 neuroradiology interventional cath. Labs., 01 MRI facility, 01 gamma-knife surgery facility, and 02 operation theaters at JPNATC. The department also provides patient care in 26 bedded neurosurgical ICU and 05 bedded neurology ICU at NSC, 20 bedded neurotrauma ICU and 12 bedded general trauma ICU at JPNATC and the wards at both these centres.

Special clinics

- A) Pain clinic in trauma center
- B) Pain clinic in NSC OPD.
- C) PAC clinic in NSC OPD.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor P.K. Bithal was Organizing Chairman of the Neuroanaesthesia Update 2014

Dr R.S. Chouhan attended 2 national conferences (AIIMS Neuroanaesthesia Update–2014 held at New Delhi from 30.08.2014 to 31.08.2014 & AIIMS Annual Neurotrauma Conference held at New Delhi from 28.10.2014 to 01.11.2014) and 01 cadaveric workshop on Interventional Pain Management (CIPM – IX) held in Goa from 12.03.2015 to 15.03.2015; Chaired 03 scientific sessions (Two in AIIMS Annual Neurotrauma Conference held at New Delhi from 28.10.2014 to 01.11.2014 & 01 in AIIMS Neuroanaesthesia Update – 2014 held at New Delhi from 30.08.2014 to 31.08.2014); Was the Organizing Vice Chairman of the AIIMS Neuroanaesthesia Update – 2014 held at New Delhi from 30.08.2014 to 31.08.2014

Dr Mihir Prakash Pandia was Organizing Secretary of Neuroanaesthesia Update 2014

Dr Girija Prasad Rath continued to hold the post of Treasurer, Indian Society of Neuroanaesthesiology and Critical Care (ISNACC), Executive Editor, Journal of Neuroanaesthesiology and Critical Care (JNACC), and Editorial Board Member of Indian Journal of Anaesthesia (IJA). Nominated as a Fellow of Indian College of Anaesthesiologists (FICA). Also nominated as the Section Editor (Neuroanaesthesia) for Annals of Cardiac Anesthesia and Associate Editor for Indian Journal of Clinical Anaesthesia (IJCA).

Dr Keshav Goyal was Awarded *Young Talent Hunt Award 2015* by the Indian Society of Critical Care Medicine at its annual conference CRITICARE 2015 held at Bangalore, Karnataka; Member of core consensus committee of AIIMS Critical Care Course (ACCC) for surgeons. Introductory course in November 2014 at JPNATC, New Delhi.; Successfully passed BLS and advanced cardiac life support course (ACLS) *provider course* held at MAMC, from 18-20th September 2014.; Successfully passed BLS and advanced cardiac life support course (ACLS) *Instructor course* held at MAMC, from 18-20th September 2014; Course director of BECC 2014 November at JPNATC, New Delhi.; Member of organizing committee of TRAUMACON 2014; CO- organizing Secretary of Neuroanaesthesia Update 2014.

Dr Charu Mahajan received award for Best paper at north zone ISACON, 2014, held at Jammu, 31 October–2 November 2014.

Neuropathology

HIGHLIGHTS

The Neuropathology lab is using molecular pathology techniques for patient care diagnostic service. Fluorescence in situ hybridization is being used in Neuro-Oncology and immunoblotting for neuromuscular diseases.

EDUCATION

CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered

Chitra Sarkar: 14

Mehar C. Sharma: 5

Vaishali Suri: 3

Oral papers/posters presented: 34

RESEARCH

Funded projects

Ongoing

1. A Clinico-pathological and Molecular Genetic Study of Polycomb Repressive Complexes in Gliomas, Chitra Sarkar, ICMR, 3 years, 2012-15, Rs 50 Lacs (approx)
2. Genomic and functional approaches to decipher the role of a large imprinted miRNA cluster in glioblastoma multiforme, Chitra Sarkar, DBT, 3 years, 2012-15, Rs.50 Lakhs (approx.)
3. Unraveling glioma development and progression through whole exome sequencing, Chitra Sarkar, DBT, 3 years, 2013-16, Rs. 99 Lakhs (approx.)
4. A study of clinicopathological features and molecular genetic alterations in adult versus pediatric meningiomas (Intramural project), Vaishali Suri, Intramural, 3 years, 2013-15, Rs 10 lacs

Completed

1. Glioblastomas in children and adults: A comparative study with special reference to molecular pathways and MGMT methylation status, Vaishali Suri, I.C.M.R., 3 years, 2010–13, Rs 25 lacs
2. Study of epithelial mesenchymal transition in ependymomas, M.C. Sharma, AIIMS, 1 year, 2012-2013, Rs 5 lacs

Departmental projects

Ongoing

1. Expression of histone markers in gliomas
2. miRNA profiling in oligodendrogliomas
3. miRNA profiling in pediatric glioblastomas
4. Simplified approach for molecular classification of GBMs
5. Expression of EZH2, Cyclin D1 and VEGF in ATRTs of CNS
6. Intracranial germ cell tumors – multicentric study
7. Pediatric oligodendrogliomas – study of molecular genetic alterations
8. Expression of DNA methyl transferases in glioblastomas
9. Epilepsy associated tumors – study of genetic alterations and micro RNA profiling
10. Pediatric Meningiomas- A Study of Clinicopathological features, hormonal profile and genetic alterations

Completed

1. ATRX gene expression in gliomas
2. BRAF and EGFR alterations in adult pilocytic astrocytomas
3. Clinicopathological and molecular subtyping of medulloblastomas

4. Study of tuberous sclerosis complex and upregulation of WNT pathway in subependymal giant cell astrocytomas and focal cortical dysplasia
5. Characterization of pediatric posterior fossa ependymomas based on 1q gain and expression of laminin alpha -2 (LAMA2) and neural epidermal growth factor like -2 (NELL2) proteins
6. Expression of biomarkers in endometrial hyperplasia and carcinoma
7. Assessment of 1p/19q status in glial tumors by FISH assay
8. Analysis of LOH 10q in Glioblastomas
9. Analysis of 1p/14q deletion in meningiomas

Collaborative projects

Ongoing

1. Chip sequencing in gliomas (IGIB, Delhi)
2. Regulation of FAT1 gene expression in Gliomas(Biochemistry)
3. Signalling interactions between Fat1, p53 and HIF1 α in glioma (Biochemistry)
4. Centre of Excellence in Epilepsy with special reference to “Difficult to treat Epilepsy”, (Neurosurgery)

PATIENT CARE

NEUROPATHOLOGY LAB

Total Specimen	3516	Frozen Section	361
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Immunohistochemistry

Total IHC	14185	Routine IHC	6542
Research IHC	5093	Muscle IHC	2550
Total Muscle Received	456	Muscle Enzyme-histochemistry	1365
Muscle Immunoblot	228	Patient Care Diagnostic FISH	510
Diagnostic	201	Routine	310
Total MGMT	70		

EM Facility

Total muscle sample	59	Total nerve sample	29
Tumors	612		

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Chitra Sarkar was nominated Vice President of the International Society of Neuropathology; Chairperson of the AIIMS Intramural research committee (Basic Sciences); Member, Editorial Board of journal Neuropathology (published from Japan); Member, Assessment Committee for scientists’ promotions of ICMR; Member of the Council of the Indian Academy of Sciences, Bangalore for the triennium 2013–2015; Section editor of the journal “Current Science” (2013-15); 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; Member of RNAi committee of Department of Biotechnology, Govt. of India; Co-chairperson of Human Ethics Committee of National Institute of Immunology, New Delhi (2013-15); Member of Human Ethics Committee of Dr Ambedkar Centre of Biomedical Research, New Delhi (2012-15); Member of Task Force of Neurosciences, Department of Biotechnology, Govt. of India.; Prof Chitra sarkar was invited by WHO to co-author the chapters entitled “Primitive neuroectodermal tumor of central nervous system” and Embryonal tumor with multilayered rosettes” in the upcoming WHO classification of Tumours of the Central Nervous System.

Professor M.C. Sharma based on his scientific publications was invited by WHO to be co-author in two chapters entitled “Tuberous sclerosis complex” and “Subependymal giant cell tumours” in the upcoming WHO classification of Tumours of the Central Nervous System.

Dr Vaishali Suri has been elected as a Member of National Academy of Medical Sciences in 2014.

Residents: Dr Aruna Nambirajan got ‘Dr V R Khanolkar Award’ for best published research for paper entitled ‘Study of stem cell marker nestin and its correlation with vascular endothelial growth factor and microvascular density in ependymomas. Nambirajan A, Sharma MC, Gupta RK, Suri V, Singh M, Sarkar C. Neuropathol Appl Neurobiol. 2014 Oct;40(6):714-25.’ in APCON 2014 held at Armed Forces Medical College, Pune from the 4th to 7th of December 2014.; Dr Rajni Yadav got ‘Smt Kunti Devi Mehrotra Award’ for best published research work for paper entitled ‘Prognostic value of MIB-1, p53, Epidermal Growth Factor Receptor, and INI1 in childhood chordomas. Yadav R, Sharma MC, Malgulwar PB, Pathak P, Sigamani E, Suri V, Sarkar C, Kumar A, Singh M, Sharma BS, Garg A, Bakhshi S, Faruq M. Neuro Oncol. 2014 Mar;16(3):372-81’ in APCON 2014 held at Armed Forces Medical College, Pune from the 4th to 7th of December 2014.; Dr Suvendu Purkait got the ‘ISNO President’s award for the Best Student in Basic Neuro-Oncology’ for his paper entitled “Molecular classification and prognostic stratification of glioblastomas (GBMs): a simplified approach for use in routine clinical practice” presented at 7th Annual Conference of Indian Society of Neuro-Oncology held at Crowne Plaza, Kochi from 26th – 29th March 2015.

PUBLICATIONS

Journals: 171

Abstracts: 25

Chapters in book: 27

Books: 2

11.1 B.B. Dikshit Library

Professor-in-Charge/Chairperson Library Committee

S. Rajeshwari

Chief Librarian

S. Siva Chidambaram

TIMINGS AND MEMBERSHIP

The library is open round the clock (24 hours) on all days of the week including Sundays and holidays. It has 3000 regular members and about 300 visitors every day.

HIGHLIGHTS

The library has over 150,000 books and other documents such as bound journals, pamphlets, etc. Even though the library is an academic and research library for faculty, residents and students at AIIMS, it has recently developed a collection of around 2100 books in Hindi. The library is well equipped with modern facilities to support medical education and research. It subscribes to and maintains about 1370 periodicals/journals including online journals and databases. In addition, it also subscribes to *Up-to-date systematic review database* and **64 E-Books**. These online databases and journals/periodicals can be accessed through IP enabled access in the campus. Very few society based journals can be accessed through their specific usernames and passwords. Necessary access information is circulated from time to time in the library and these circulars are available on the AIIMS website: <http://www.aiims.edu/en/library.html>

The Library Committee is an advisory body for management of the library. It advises the Chief Librarian regarding procurements of books and subscription to journals/periodicals and databases. The present committee consists of the Professor-in-charge as Chairperson, four Professors, three Additional Professors and two Assistant Professors from various departments as members and the Chief Librarian as Co-ordinator.

The library has an in-house information communication and management system consisting of three servers and forty-six PCs. The library uses *Libsys Premia* automation software system that supports data entry and retrieval in Hindi as well. The library maintains a CD-ROM work station for medical literature. All documentation/bibliographic services as well as certain library operations have been computerized, using integrated library management software *Libsys Premia*. Information on all books and other documents received in the library are available online through intranet within the campus and is updated regularly. Library provides *Current Awareness Service* and *Bibliographical and Reference Services*. Recently, the library started the **AIIMS Institutional Repository Bulletin**. It can be browsed through by readers for bibliographic details of papers/articles published by the faculty members and research scholars in different national and international journals.

The library has also been providing services like web-based Open Access Public Catalogue (Web OPAC), internet search facility with Wi-Fi, Reprography and print out of academic literature and a book bank for undergraduate students.

During this year, the library conducted a journals evaluation survey among all departments. The findings of this evaluation was that a majority of departments suggested stopping print subscriptions and providing access to online subscriptions with an additional requirement of 218 journals. Based on that, library framed a policy to subscribe online only option for journals. The library started online subscription of 1370 journals during 2015.

During this year the library subscribed to *Up-to-date: a systematic review database*, *BMJ best practice*, *BMJ case report* and *Access Medicine database* which includes around 70 basic reference medical books with multimedia option.

Due to shortage of space, library has decided to shift the abstracting and indexing, and duplicate journals to the off-site record management firm of AIIMS at Gurgaon. We have sent around 7000 bound volumes of abstracting and indexing journals and other documents this year. This is the start of a weeding out process in the library, in the

fourthcoming years. If there is no requirement of certain journals from any doctors/users, these will be shifted to the off-site store house.

To reduce the shelving space and preservation of old documents, two major compactors have been installed on both sides of the staircase on the ground floor.

CONFERENCES AND PUBLICATIONS

Dr S. Siva Chidambaram

1. attended National Workshop on Plagiarism: Issues and Challenges, JNU, 23 April 2014.
2. attended one day National Seminar on E-books, University of Delhi South Campus, New Delhi, 9 June 2014.
3. delivered lecture on 'E-Resource in Health Science Libraries' in the training course on 'IT Application for Information Management in Medical Libraries', NIHF, New Delhi, 15 October 2014.
4. attended International Conference organized by NIFT, Delhi on the convergence of libraries, archives and museums (ICLAM-2014), IGNC, New Delhi, 27–29 November 2014.
5. attended 17th National Convention on Knowledge Library and Information Networking (NACLIN-2014) organized by DELNET, Delhi, French Institute, Pondicherry, 9–11 December 2014.
6. Rapporteur General of National Convention of Medical Library Association of India (MLAI), Ravindranath Tagore Medical College, Udaipur, 15–17 December 2014.
7. presented a paper on 'New Ways to Work and Learn in Healthcare Knowledge Management System in Health Sciences Institute', Library and Information Professional Summit (LIPS), National Law University, New Delhi, 23–24 January 2015.
8. panelist for panel discussion on 'Resource Sharing and Setting of Local Consortia among Academic Library of Delhi & NCR' during National Seminar on Transforming University Libraries, JNU, New Delhi, 28 January 2015.
9. delivered lecture on 'Open Access Resources in Medical Sciences' in UGC refresher course in Library and Information Science, Academic Staff College of Jamia Milia Islamia University, New Delhi, 19 February 2015.

Mr M.K. Vishwakarma

1. attended the National Workshop on Plagiarism: Issues and Challenges, JNU, New Delhi, 23 April 2014.
2. attended one day National Seminar on E-books, University of Delhi South Campus, New Delhi, 9 June 2014.
3. attended one day National Seminar on 'Changing role of Librarians in digital era', JNU, New Delhi, 12 August 2014.
4. attended an International Conference on the convergence of libraries, archives and museum, IGNC, New Delhi, 27–29 November 2014.

Mr Jahangir Khan attended National Convention of Medical Library Association of India (MLAI), Ravindranath Tagore Medical College, Udaipur, 15–17 December 2014.

Mr Prashant Shrivastava attended a one day Workshop/Professional Development Program at YMCA, New Delhi, 1 November 2014.

Mr Umesh Kumar attended a one day Workshop/Professional Development Program at YMCA, New Delhi, 1 November 2014.

11.2 Cafeteria

Chairperson

O.P. Kharbanda

Member Secretary

Sushma Sagar

Accounts Officer

A.K. Sharma

Meenakshi Dabral
(from 3 January 2015)

General Manager

S.K. Kaushik

Deputy General Manager

K.K. Sharma

AIMS AND OBJECTIVES

AIIMS Cafeteria was established in 1972 to provide wholesome food, prepared in healthy hygienic condition at reasonable prices to the Institute's employees. The cafeteria is run on no profit–no loss basis, and receives no financial assistance from the Institute for equipment, furniture, utensils and other basic requirements.

MANAGEMENT COMMITTEE

The Management Committee was constituted by the Director of AIIMS to make policy decisions that pertain to the Cafeteria from time to time. The following are its members:

Dr O.P. Kharbanda	Chairperson
Dr Neena Malhotra	Member
Dr Binod Kumar Khaitan	Member
Dr Vanlalnghka Darlong	Member
Dr Rajesh Khadgawat	Member
Dr Sumit Sinha	Member
Representative of FAIMS	Member
Representative of RDA	Member
Representative of Officer's Association	Member
Representative of Nurses Union	Member
Representative of Karamchari Union	Member
Dr Sushma Sagar	Member Secretary
S.K. Kaushik, General Manager, Cafeteria	Co-coordinator

SERVICE FACILITIES

The Cafeteria runs 9 units to cater services to more than 10,000 employees of AIIMS.

1. Main cafeteria (24 hours service) situated near Jawahar Lal Nehru Auditorium
2. Main Operation Theater cafeteria situated on the 9th floor of the main hospital
3. CNC cafeteria situated on the 2nd floor of the center.
4. Dr R.P. Centre O.T. cafeteria situated on the 5th floor of the center.

5. Centre for Dental Education and Research
6. Dr B.R.A. Institute Rotary Cancer Hospital
7. Faculty Room cafeteria situated near the main cafeteria
8. AIIMS Out Rreach OPD, Village Badsa, Jhajjar, Haryana
9. AIIMS OPD Canteen established under the management of AIIMS Cafeteria caters to the needs of patients and their relatives round the clock (24 hours service).

In addition, the cafeteria not only provides hospitality services to all higher officers and faculty members for day to day requirements, but also for special requirements of important official meetings, workshops, symposia etc. organized at AIIMS.

STAFF STRENGTH

A total of 95 employees are on the rolls of the Cafeteria Department on regular and *ad hoc*/temporary/contractual basis.

ANNUAL TURN OVER

The total turnover of the Cafeteria Department is approximately Rs 3.82 crores.

DEVELOPMENT ACTIVITIES

Several changes were brought in the Cafeteria Department during this financial year. Further, an independent in-house AIIMS OPD Canteen was established to cater to the needs of patients and their relatives. The canteen provides hygienic food in a good ambience round the clock.

FUTURE PLANS

There is a proposal for construction of multi-story cafeteria well-equipped with the latest technology to provide healthy food made under hygienic conditions to cater to the needs of AIIMS employees, patients and their relatives. The work has been awarded and construction work is likely to be started very soon.

11.3 Central Animal Facility

Professor-In-Charge

D.N. Rao
(upto 24 September 2014)

S.K. Maulik
(from 25 September 2014)

Senior Veterinary Officer

P.K. Yadav

During the year animals were maintained in the facility (Rodents and Non-Human Primates-Monkey).

Small Animal (Rodents)

The following rodents (average per month) were maintained throughout the year:

1. Rats (Wistar)	1632
2. Rats (Sprague Dawley)	194
3. Mice (Swiss)	547
4. Rabbits (New Zealand)	92
5. Guinea Pigs (Dunkin Hartley)	27

A total of 3976 small animals (rats, mice, rabbits and guinea-pigs) were supplied to various departments of the Institute and also sold to sister institutions in Delhi and outside Delhi (rats 175, mice 120, rabbits 6, guinea pigs 10).

Non Human Primate (Monkeys)

Census report

Total monkeys on 1 April 2014	10
Monkeys rehabilitated to Sanjay Gandhi Animal Care Centre, Raja Garden, New Delhi on 20 December 2014	10
Total monkeys on 31 March 2015	0

Procedures conducted

Blood samples collected	20	Physical examination, TB test	20
Haematology and biochemistry	20	X-ray	20

Experimental Surgery

Thirty one surgical procedures with ethical permissions were performed by faculty and students from various departments on animals in the Central Animal Facility of the Institute. These departments included Surgery, Biomedical Engineering Unit, 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 & Climate Change (Government of India). The AIIMS CPCSEA registration No. is 10/GO/ERebi/SL/99/ CPCSEA. The Institutional Animal Ethics Committee (IAEC) cleared 82 projects on small animals (rodents) of various investigators of AIIMS during the year.

Services provided

The CAF has been maintaining animals belonging to the departments of Microbiology, Biomedical Engineering Unit, Biochemistry, Biotechnology, Reproductive Biology, Anatomy, Psychiatry, Pathology, Laboratory Medicine, Stem Cell Facility, Neurology and Neurosurgery. This facility, on an average every month, housed 10 Sprague Dawley rats, 445 Wistar rats, 446 mice, 28 rabbits, 17 guinea pigs and 15 hamsters belonging to the above departments.

The CAF also provided laboratory facilities to various investigators, such as vacuum drying of sera, storage of serum samples, haematology, clinical biochemistry, microscopic investigation and radiography.

Educational programme

1. Dr P.K. Yadav, has been invited for guest lectures at National Institute of Animal Welfare (Ministry of Environment and Forest) for one week and two weeks training programmes on animal welfare.
2. Dr P.K. Yadav (Senior Veterinary Officer), Mr Jasbir (Laboratory Attendant) and Mr Dhananjay Kumar (Animal House Attendant) participated and assisted in the conduct of 'Animals in Minimally Invasive Surgery Training Centre, Department of Surgical Disciplines, AIIMS'.

11.4 Central Workshop

Faculty Coordinator

Ganga Prasad

Chief Technical Officers

Adarsh Kumar Sharma

Kalu Ram

Senior Technical Officers

Harinder Pal

Nitin Srivastava

The strength of Group B and Group C staff is:

Technical officers	5	Technician (Grade I)	5
Technician (Grade II)	10	Workshop Assistant	2
Khalasi	6	Store Clerk (UDC)	1
Assistant (NS)	1		

HIGHLIGHTS

The central workshop plays an important role in aiding smooth and complete patient care. It is engaged in the repair and maintenance of various equipments used for medical education, scientific research and hospital services and ensures quality functioning of all categories of equipment in all departments at AIIMS. It also modifies instruments according to the needs of the departments and undertakes design and fabrication work to meet specific needs of various departments.

There are various sections in the Central Workshop to cater to the above mentioned services. Each section is headed by a Senior Technical Officer or Technical Officer and has supporting staff members. The sections are:

Electronics	Electrical
Refrigeration	Mechanical (I and II)
Fine instruments	Painting, upholstery and carpentry

LOCATION

The Central Workshop is located in the basement, ground and first floors of the building adjacent to the laundry. It also has a minor repair centre on the 7th floor of the main hospital building (opposite lift No.10).

REPAIR AND MAINTENANCE

The Central Workshop is responsible for preventive and corrective maintenance of diagnostic and therapeutic machines and provides evaluations of new technology, conducts device incident investigations and ensures that the machines are in proper and safe operating condition.

The team at the Central Workshop provides efficient support in maintaining optimum working condition of various equipments in the hospital. The list of machines include but is not limited to sphygmomanometer, infusion pump, multi-parameter monitor, defibrillator, patient warmer, OT table, OT light, refrigerator, deep freezer, microwave oven, spectrophotometer, electronic weighing machine, microscope, needle destroyer, water bath, radiograph view box, servo stabilizer, boilers, hot plates, table top centrifuge, stainless steel drum and OT care machines like suction machine, wall suction regulator, oxygen flow regulator, flow meter and surgical instruments.

The Central Workshop also carries out repair and painting work of all hospital furniture such as patient beds,

patient trolleys, patient lockers, instrument trolleys, loading trolleys, bed side locker, pushcarts and many more equipment.

During the year, the Central Workshop attended to a total number of 8060 repair jobs.

FABRICATION AND GUIDANCE

In spite of the gradually increasing load of repair and maintenance activities, the Central Workshop has been able to help in research activities with design and fabrication of useful gadgets as per specifications provided by various departments.

Twenty four different jobs (for 236 items) were fabricated by the Central Workshop. These items include Tr. tube, stilette, hammer cap, handle for surgical instruments, perspex platform for microscope, sample tray box, suction bottle lid, trolley tray, trolley, clamp for suction bottle lid, viscera box, DHS punch, plastic mould, anchor, hip push attachment, bakelite board, testicular ball, splint, side block, tag piece, manipulator cup, SS rod, circle shape, etc.

SHORT-TERM TRAINING

The Central Workshop is actively involved in providing guidance and imparting short term training (4–6 weeks) to Diploma/undergraduate students of various engineering colleges.

Two students from Kasturba Polytechnic for Women (Delhi) were provided short term training during the year.

11.5 Computer Facility

Professor in-charge

P.P. Kotwal

Systems Analysts

S.N. Ragu Kumar

Satish Prasad

Sushil Kumar Meher

Senior Programmers

Sanjay Gupta
Pawan Sharma

Vinay Pande
Shyamal Barua

Hari Shankar

Programmers

Tripta Sharma

Sanjeev Kumar

Amit

Ankita Saini

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. Training was also provided to officers of the Armed Forces deputed to study Medical Informatics for a period of two years.

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).

SERVICES

Hospital Computerization

The following software designs, development, implementation and support activities were carried out:

Main Hospital and Centres

eHospital Software developed by NIC under the supervision of computer facility is providing a common platform for the whole AIIMS computerization process. It is being implemented and the facility is also providing 24/7 support and maintenance for following activities: New and Revisit, Clinic Registration of the Rajkumari Amrit Kaur OPD, Cardiothoracic and Neurosciences (CN) Centre OPD, Dr R.P. Centre for Ophthalmic Sciences (RPC) OPD IRCH, Centre for Dental Education and Research (CDER) OPD and Community Rural Health Services Project (CRHSP), Ballabgarh.

Cash and Billing

Billing has been implemented on a number of locations including the main cash counter, New Private Ward building (ground floor), Rajkumari Amrit Kaur OPD (ground floor), RPC, CDER and CN Centre. Cash card has also been implemented at the main hospital and RPC.

Inpatient (IPD) Registration

An in-patient is now registered with the new software developed by NIC. It covers short-term and long-term admission of patients with related face-sheet generation at the main hospital, CN Centre, IRCH, CDER and RPC.

Laboratory Information System (LIS)

The process of continuous maintenance and enhancement of LIS modules of eHospital for the three laboratories of Laboratory Medicine (Clinical chemistry, Haematology and Clinical Microbiology) is done. It includes laboratory

appointment, sample registration, bar code generation, sample received (acceptance), result generation and authorization. Hitachi Auto analyzer was interfaced with eHospital for auto result generation for Laboratory Medicine. LIS was also implemented in AIIMS Main Hospital (Departmental laboratories and specialized laboratories), and all centres (CN Centre, Dr BRA IRCH, RPC and CDER).

eHospital Admission, Transfer and Discharge (ADT) in wards

ADT has been implemented completely in Main Hospital, CN Centre, RPC, CDER and IRCH.

eHospital@NIC Store and Sub-Stores (Inventory Management System)

e-Store module has been implemented in the stores of the main hospital, all centres (CN Centre, Dr BRA IRCH, RPC, CDER) and Computer Facility. Training is provided to end users for using the application module and resolving day-to-day issues and continuous hand-holding for maintenance. Sub-stores are maintained at ward level in Main hospital, CN Centre, Dr BRA IRCH, CDER and RPC.

Dietary

The dieticians make dietary charts online from the wards and send it electronically to the dietetics department for patients admitted in wards. A complete diet list is provided in the module. A complete MIS is maintained and is available for dietetics department. This module has been developed for Main Hospital, CN Centre, RPC and the dietetics department.

EHS Implementation Status

Continuous maintenance and enhancement of registration and room allocation, diagnosis of EHS patients in EHS Wing, and distribution of medicines (EHS Pharmacy) is functional. The prescribed medicines are reflected at the pharmacy counter and displayed in pharmacy till 4 days after prescription to facilitate patients. There are eight online counters for patients, six in the morning and two in the evening. Pharmacy store (EHS Pharmacy): Pharmacy store maintains stock and transfers medicines to all eight counters on their demand (raising indent) and stocks get automatically updated at counters as well as the store. When the pharmacy store requires fresh stock, they take it from the main store and enter the stock for their needs. Online self prescription of medicines under EHS beneficiary scheme for medical faculty has been implemented.

eHospital@NIC Appointment Module

eHospital@NIC appointment module has been implemented across the main hospital and centres (CN Centre, Dr BRA IRCH, RPC and CDER). The appointment module has also been made available through Web, IVRS (Interactive Voice Response System for appointment via phone) and AIIMS@Delhi mobile application and AIIMS call centre.

Dr B.R. Ambedkar Institute Rotary Cancer Hospital

eHospital@NIC has been implemented at Dr BRA IRCH. The following modules are functional: OPD (new and old) registration, in-patient registration, billing facility, laboratory investigation request/collection software tool, laboratory reporting and discharge summary.

The software that was developed in-house for day-care appointment system, drug authorization software for in-patients and day care, cheque printing is running smoothly for the past four years.

CN Centre Blood Bank

Continuous maintenance and enhancement of the online process at the blood bank is provided for users ease. The whole process is computerized with both online and offline modes and is working smoothly. It covers activities of donor profile entry, donor medical history, donor blood group identification, blood bag preparation, TTI screening, component preparation, aphaeresis, requisition, cross match details, issue details, blood transfer, bulk reception and MIS.

Wi-Fi in Hospital area

More than 650 wireless hotspots have been set up across all centres and the main hospital. Through Wi-Fi one can seamlessly roam across AIIMS campus on a single network automatically. The wireless network is based on the latest technology and is POE (power over Ethernet) to ensure high availability. The procedure is as follows:

1. For INTRANET access (PACS, e-Hospital, Library resources) the access point AIIMS INTRANET needs to be accessed only once and then the user is connected to all the above services. There is no need for any Wi-Fi password, etc.
2. For INTERNET access (Email etc). This facility is made available only for AIIMS faculty. MAC address of each device which needs to be connected to internet needs to be given in prescribed format. Once bound at the computer facility, the user can access internet on the device on the same network.

RICOH Network Printer

In AIIMS 150 RICOH network printers have been installed in the Main hospital, Dr BRA IRCH, RPC and CN Centre. All printers are functional.

KIOSKS

These are vandal proof computers with touch and type input placed in public areas of AIIMS for use by doctors and nurses to view PACS images, laboratory reports, enter notes on CPRS and patient vitals by nurses. These are also connected to network printers so that printout can be taken from a central location.

Electronic Patient Record System

Clinical note entry (Admission note, round note, discharge note, operation note etc) in CPRS is implemented in Main hospital, Dr BRA IRCH, RPC and CN Centre. Vital entry for all in-patients, nursing transfer notes, e-Roster across main hospital has been developed in-house and implemented in various locations at AIIMS.

PACS

Open PACS (Oviyam) has been implemented all over Main Hospital and IRCH. GE PACS has been integrated with eHospital in CN Centre.

E-Hospital Application Software Implementation Status at AIIMS, Jhajjar (Haryana)

Continuous maintenance and support is provided to register 400 patients in the OPD. Online prescription of medicines by doctors and issue of medicines free of cost to patients is computerized and running for past 3 years.

Nursing Informatics

Faculty-in-charge and Chairperson, Computerization Committee

Deepak Agrawal

Nursing Informatics is a well-trained cadre of nurses that helps in implementation and development of applications as per requirements from various departments. At present 75 nurses are working as NIS (Main hospital 35, CN Centre 16, RP Centre 5, Dr BRA IRCH 8 and JPNATC 11). The following activities are being performed and coordinated by NIS.

EDUCATION

CNE program for nurses was initiated in January 2014 with the aim to provide proper orientation to nursing staff of various on-going e-modules. So far 30 sessions of CNE have been organized for nursing personnel. The key features were live demonstrations and hands-on training sessions. Feedback for improvement was taken after all courses and suggestions incorporated in subsequent sessions. The major highlight of the programme has been the realization that NIS can be used as resource pool for empowering healthcare professionals in other institutions in India as well.

SERVICES IN HOSPITAL

With consent of faculty of every department, NIS are posted in every department. The NIS provide training to doctors, nurses and paramedics to implement applications and are involved in modifying modules as per request. The modules are as follows:

Emergency Department: Computerization of the emergency department started with implementation of laboratory modules. Later training for other modules like e-Hospital, online store management were given to the staff nurses

and ward in-charges. Training for PACS was given to all the staff and residents, ending the waiting time for patients for their X-rays and CT reports in emergency. Installation of Wi Fi access point in the emergency has made patient data access easier for residents. Filling of printed registration slips by residents was made mandatory for getting documentation of the patients.

A Patient Display System, with all details of patients has been put up in all the emergency areas with the aim to convey the treatment status of each patient in the emergency, therefore establishing transparency in hospital care services, in turn leading to efficient patient care and management. A system-based registry included in PDS is of great help in data collection, which is also being done by the NIS is posted in the department round the clock.

On the lines of a fully functional PDS in the emergency department, another innovative step has been the implementation of doctors' duty display, emergency helpline numbers and emergency nursing coordinators.

Doctors duty display publicizes the list of doctors on duty in various departments of emergency thus ensuring accountability and transparency in the system. NIS also acts as Emergency nurse coordinators to coordinate with the doctors, nurses to speed up the treatment process and minimize the patient stay in ED.

- **e-MLC:** AIIMS has implemented an electronic medical record system in emergency department since 1 October 2014 with the objective of creating a tamper proof eMLC that can be printed in a format with the identification image imposed in it mandated by law thereby satisfying all legal requirements. eMLC has an additional advantage of having the photo identification of the patient and also can be easily retrieved for future reference. NIS posted 24x7 in the emergency department ensures 100% compliance and solves any issues related to the module.
- **Admission blocking:** It is a program designed to ensure timely transfer of patients to their respective wards from the emergency department. Previously, the duty officers did blocking of admissions manually. Now this application helps them to identify which department's admission is about to be blocked due to the delay in transfer of patients from the Emergency/Peripheral wards. They can take necessary actions, thereby enabling the smooth functioning of emergency admission process.

Biometric Attendance with Duty Roster: Another innovative project is biometric system for the attendance integrated with Duty roster. The biometric attendance is linked with the online duty roster to ensure compliance with the biometric attendance system, which was already functional in JPNATC. For replicating this system, a major exercise was undertaken. Fingerprints have been recorded for every employee on the biometric machines. Machines have been installed all over AIIMS and integration is almost complete.

Exit Counters for future Appointments for OPD/Clinic/Procedure: Six exit counters and five kiosks were started to provide future appointments for all OPD/Clinics/Procedures so that patients can select the slot convenient to them. This has streamlined the OPD work process so that every patient takes a prior appointment for the next visit. NIS along with TCS has been involved in the transformation and streamlining the process.

Laboratory module: Since January 2014 till date, 22 laboratories have gone online. The requisition to reporting is done in e-hospital system for OPD patients and Inpatients. The Nursing Informatics Specialists along with the NIC team has been co-ordinating to get labs online, train the technicians and doctors in laboratories. There are 17 laboratories offline and these too would be brought online by August 2015.

S. No.	Name of laboratory
1.	Side Lab (Biochem-Emg-Lab) Room No. 2
2.	Side Lab (Biochem-Routine-Lab) Room No. 20
3.	Side Lab (Haematol-Routine-Lab) Room No. 23
4.	Ocular Biochemistry Lab, 6th Floor, RPC
5.	Dr Sarman Singh's Lab, Room No. 28, Central Collection Facility
6.	CN Centre, Ground Floor, Room No. 17a
7.	Side Lab (Haematol-Emg-Lab) Room No. 3
8.	Side Lab Routine Haematology, Room No. 22

9.	IRCH Oncology Lab
10.	IRCH Apheresis Lab
11.	RPC Haematology Lab, 7th Floor, RPC
12.	Central Collection Facility, Room No. 11
13.	TB Lab, Room No. 2056, Teaching Block, 2nd Floor
14.	STD Lab Room No. 2069, Teaching Block, 2nd Floor
15.	Serology Lab, Room No 24 (Side Lab), Main Building
16.	Microbiology Lab, Room No. 2071, Teaching Block
17.	RPC Pathology, 7th Floor, RPC
18.	Pathology 1st Floor, Teaching Block
19.	Mycology Lab, Room No. 2080, Teaching Block
20.	Reproductive Biology, Room No. 2090, Teaching Block
21.	Medical Oncology, IRCH
22.	Mycoplasma Lab, 2nd Floor, Teaching Block

IN-HOUSE MODULES

eBirth Certificate: On 1 December 2014, a web based application called Electronic Birth Certificate was implemented. This application includes valuable features to simplify the collection of birth information and store it in a centralized database. With this software only single entry is needed with the child's UHID number. Once the entry is done, the data automatically is fed into centralized system from which certificates are obtained by click of a button.

MSSO: MSSO software has been developed in house to provide *Railway Concession Certificate and Handicapped Certificate* for patients undergoing treatment at AIIMS. Railway concession certificate and Handicapped certificate are generated online along with reports.

Blood Bank: Computerization of Blood bank has been another landmark step. CNC Blood bank requisition forms have been live since 27 January 2015 and it will start in Main AIIMS Blood Bank. Through Computerization our aim is to bring transparency, prompt response in blood bank workflow.

Quality Assurance Module (QAM): This was started as a remedy for all these issues wherein faculty can grade the event on the go at the time of presentation. It also gives the attendance of residents, which is linked to their biometric attendance. It is live in Neurosurgery and Gynecology Dept.

OT Scheduling: The application to schedule OT list of particular department which can be updated in real time and can be accessed by any authorized user even from their home (through library access). It enables creation of OT list and easy scheduling with minimal error as compared to the manual process.

Death Note: The online application to prepare the death certificate as per specified format laid by Delhi government was implemented successfully all over AIIMS. NIS coordinated in training and its implementation.

Vitals entry: An online module to enter the vitals of the patients from which consolidated report can be printed during the time of the discharge.

Rajgarhia Vishram Sadan (Three Vishram Sadans)

This module was developed and provided continuous support to the end user for smooth functioning of room reservation and billing.

Faculty Management System

This is an interface for faculty members of AIIMS where they can find any details related to their leave applied, OPD and IPD patients diagnosed, OT details, publications, ACR and annual report. The advantages are:

1. Faculty members do not need to go to the administration for any query regarding leave, national/ international conferences. Faculty dashboard will provide this detail in a single screen.
2. Annual report which is currently running will enable faculty members to provide details regarding CMEs, publications, books published, projects details, etc.

Administration

The facility was involved in coordinating and implementing eOffice program in all sections of administration/ finance/engineering/stores including centres and departments. Maintaining the finance server (Novell)/administrative server (Windows) for financial applications and web based administrative/financial applications.

IT infrastructure and Networking, Internet and Intranet management activities

1. Facility Management for Wireless Networking: Continued implementation of support systems and call centers for student support.
2. Continued management of webmail system.
3. Upgraded UTM 2500iNG. Continued management of Unified Threat Management (UTM) and installation 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 successful implementation 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 approx. 6000 students have availed this facility. Currently 1200 users are registered for this facility.
5. Continued management of online access to journals subscribed by B B Dikshit Library is enabled through VPN tunnel based access outside the Institute.
6. Continued management of Neuro ICU patient monitoring online to view the status of ICU patients anywhere outside the ICU.
7. Continued management of CT-6 ICU patient monitoring online to view the status of ICU patients anywhere outside the ICU.
8. Continued BBDL OPAC Services and enhancement of library online resources subscribed through BB Dixit library through AIIMS website.
9. Bilingual website creation process continued. So far more than 50 departments/centers have been translated into Hindi and hosted in the website.
10. Continued management of Wi-Fi zone at B.B. Dikshit Library for internet and online journal access for students.
11. The website of www.aiims.edu, www.aiims.ac.in is being maintained.
12. Internet facility for faculty and students was maintained on 24/7 basis on the AIIMS network at around 3900 nodes (including 881 e-Hospital nodes).
13. National Knowledge Network (NKN) lease line of 1Gbps with capacity to extend up to 2 Gbps has been installed at Computer Facility from NIC. Nodes have been given to various lecture theatre and departments for information access through NKN lease line.
14. Creation and maintenance of 1000 email user accounts on aiims.ac.in domain.
15. The total number of visitors to AIIMS website was approx. 45 lakh during 2014–15.
16. Maintenance of Web server, Proxy server and Mail Server 24x7x365 days.
17. 350 new internet connections have been provided to faculty and officers staff of AIIMS.
18. Facility management and call maintenance for internet and network user's complaints and resolution.
19. Continued management of technical coordination for online journal access and provision of journal access using internet and PC at duty rooms and common rooms for scholars and senior/junior residents.

20. Continued VPN tunnel management between AIIMS and FSS Chennai for CN Centre OPD cash card payment gateway, JPNATC and Deaddiction centre, Ghaziabad.
21. Taken over e-Hospital (Main Hospital) and Outreach OPD Jhajjar networking.
22. VPN based access mechanism for e-Hospital module access from outside AIIMS configured particularly for Ballabgarh, AIIMS centers.
23. Networking and configuration through NKN done for connecting NDDTC, JPNATC and Centre for excellence, Epilepsy and brain center's remote location.
24. Media server created for hosting video & photos at CMET.
25. Hosting web portal of Ethics Committee on AIIMS server.
26. Making office of Ethics committee Wi-Fi enabled
27. Hosting web-site of Research Section on AIIMS server.
28. A training program was conducted on Cyberoam firewall on 9–11 December 2014 for AIIMS staff.
29. Renewal of aims.ac.in domain name done with ERNET.
30. MAC ID authentication provided to AIIMS faculty and nursing staff for Wi-Fi based access to e-hospital software's at wards, OTs.
31. Restoration work of UTP Cable connecting Hostel 9 and 10.
32. Providing E-mail ID to faculty members at aiims.edu.
33. Space provided to TCS at Convergence Centre (9th floor) with necessary infrastructure like computer, Wi-Fi, Internet connection etc.
34. New revamped website and social media prepared and inaugurated jointly by Professor Bhan, Secretary, Department of Biotechnology and Professor M.C. Misra, Director, AIIMS on 27 January 2015.
35. Coordination and arrangements for visit of postgraduate students from Indian Red Cross Society at AIIMS Telemedicine Centre, February 2015. Lecture and demonstration was given by CF.
36. AIIMS.edu migrated from shared server to powerful dedicated server.
37. Installation of Wi-Fi at main building as well as Hostels at NDDTC and complete revamping of its networking for a smooth working of Internet and E-hospital.
38. Revamped internet connectivity at newly constructed faculty/SR/JR and Staff Rooms at PMR.
39. Provided connectivity to Brain Laboratory facility of Dr Sharat Chandra, Department of Neurosurgery.
40. Proposal given for internet connectivity through BSNL for internet & Wi-Fi at Jhajjar outreach OPD
41. CAMC for Hardware and Networking awarded through tender process for whole of the institute.
42. Wi-Fi enabling of Hospital, OPD, OT and ICU for use of e-hospital Software & Internet.
43. Lecture presentation and hands-on training at orientation program for new students of MBBS (Batch 2014).
44. Created Backup link to NKN for AIIMS & ICMR.
45. Proposal for hospital and Wi-Fi networking at CRHSP, Ballabgarh created and submitted to CRHSP Ballabgarh.
46. Proposal for networking of Convergence Center created.
47. Wi-Fi/Internet Connectivity provided to aid various Seminars/Conferences/Talks/Video Conferences etc. held at AIIMS from time to time.
48. Computerization of OPD, IPD and store Information Systems at CRHSP Ballabgarh and its PHCs done
49. Total number of pages updated, created and uploaded on AIIMS website approximately 2500.

PUBLICATIONS

Journal: 3

SIGNIFICANT EVENTS

Mr S.N. Ragu Kumar and Mr Hari Shanker conducted Orientation program for MBBS students and Resident Doctor's AIIMS.

Mr. Satish Prasad supervised the Administrative LAN (Novel Netware server) which caters to the Administration and Financial System and maintaining software for AIIMS Finance; Coordinated the eOffice Project (NIC) implemented at AIIMS; Course Coordinator and teaching faculty of MSc, BSc and Post Certificate students for Information Technology classes of College of Nursing, AIIMS. Took classes of MS, Windows OS and applications software used in IT of Disaster Management course for Indian Red Cross Society (Master's course affiliated to IP University); Designated Central Assistant Public Information Officer (CAPIO) for Computer Facility.

Mr S.K. Meher was course coordinator for course of Computer Application in Biomedicine, MSc Biotech. He is giving training to three doctors from the Armed Forces in the field of Medical Informatics posted in AIIMS for two years; conducted computer orientation program for MBBS students of AIIMS; implemented eHospital and networking in AIIMS and centers of AIIMS; Supervising eHospital implementation in OPD clinical module for Gastroenterology and CHC Jhajjar; Member of technical committee of computer facility and drafted technical specifications for computer software and hardware; Chairman, Inspection committee for computers and IT hardware purchased by computer facility; Reviewer for Journal of Biomedical Informatics (JBI), American Association of Medical Informatics and Journal of Computer Methods and Programs in Biomedicine (Elsevier); Member, Medical electronic and Health Informatics working group for project evaluation for Department of Electronics and Information Technology, Government of India; Continuing as President of Indian Association of Medical Informatics, 2014–15; Board member, International Society for Gerontechnology, 2014–16; Chaired a session in eHealth workshop in APAMI 2014 held in Delhi; Organized National conference on Medical Informatics and Asia Pacific Association of Medical Informatics; Moderated a session 'Information Governance in Healthcare–Key to Transformation' in APAMI 2014; delivered invited talk on Big Data Analyst at 2nd CEUTEH–2014 held at AIIMS; Co-investigator of DST project: oldagesolutions.org. 'Challenges and hurdles to implement eHealth in developing countries' has been accepted for oral presentation at 15th World Congress in Health and Biomedical Informatics, Sao Paulo, Brazil, 19–23 August 2015; listed in international list in Biographical Lexicon of Medical Informatics to be inaugurated at 15th World Congress in Health and Biomedical Informatics.

Mr Vinay Pande took classes of IT in Disaster Management and Cyber Terrorism for Indian Red Cross Society (Masters course affiliated to I.P. University); took MSc, BSc Inf. Technology and Medical Informatics classes of Nursing College, AIIMS; As Officer in Charge eHospital store and Computer Facility Store, got these two stores online, managed and deployed/issued various computer/peripherals/consumables and other assets pertaining to eHospital project and other computerization projects at AIIMS.

11.6 Electron Microscope Facility

(Department of Anatomy)

Officer-in-Charge

Taposh K Das

Professor

T.C. Nag

Technical Officer

Sandeep Arya

EDUCATION

1. Nine M. Biotech students of the Department of Biotechnology, AIIMS, received two weeks training from 25 August to 6 September 2014 (as part of their 1st Semester Cell Biology Practical).
2. The EM course for Anatomy postgraduate students was held from 16 January to 6 March 2015.

CME/Workshops/Symposium/National and International Conferences

1. The 30th National Training Program in Electron Microscopy for Scientific Investigators was held from 10 to 22 November 2014. Thirteen candidates from different parts of the country participated in this training program. In all, 10 lectures were delivered by Dr Taposh K. Das and Dr T.C. Nag to the participants of the above training program.
2. The 19th National Training Program in Electron Microscopy for Technical Personnel was held from 2 to 14 February 2015. Four candidates from different parts of the country participated in this training program.
3. The summer training course in Electron Microscopy for technical personnel was held from 16 May to 26 June 2014. Four candidates, each from institutions in West Bengal, Chandigarh, Delhi and Uttar Pradesh were trained in sample processing, ultramicrotomy, CPD, sputter coating, TEM and SEM viewing and routine maintenance of microscopes.
4. Seven students from NIIT University, Neemrana, Rajasthan visited EM facility on 7 Dec 2014 under the guidance of Dr Mandeep Dadhwal and were instructed on principles of EM and processing of biological samples for EM observation.
5. Four students with one faculty from the Department of Physiology, Calcutta University visited EM Facility on 11 March 2015 and were instructed on principles of EM and processing of biological samples for EM observation

Lectures delivered

T.C. Nag: 2

RESEARCH

Funded projects

Ongoing

1. Identification and evaluation of fluoride induced nephrotoxicity markers: a diagnostic tool for early detection of fluorosis. T.K. Das. Inst Res Grant (AIIMS). 2014–16. Rs 10 lakhs.
2. To study the role of Th (T helper)17 cells in arthritis patients in Indian population. T.K. Das. ICMR. 2015–18. Rs 40 lakhs.
3. Morphological and biochemical changes in neonatal chick retina following exposure to variable photoperiods. T.C. Nag. SERB. 2013–16. Rs 33.6 lakhs.

Completed

1. Correlation between autophagy and apoptosis in ischemia-reperfusion injury model by middle cerebral artery occlusion in rat brain

- Status of Histone acetyl transferase and SIRT 1 expression in a rat model of light-induced retinal damage

Departmental projects

Ongoing

- Correlation between autophagy and apoptosis in cerebral ischemia reperfusion injury in rat middle cerebral artery occlusion model
- Effect of angiotensin receptor modulation in rat middle cerebral artery occlusion: a morphological and biochemical study
- Morphological and biochemical changes in neonatal chick retina following exposure to variable photoperiods
- Expression patterns of iron regulatory proteins in rat retina with aging and in experimental iron overload

Completed

- Role of Sirtuin 1 in light-induced retinal damage on Swiss albino mice

PUBLICATIONS

Journals: 10 Abstracts: 1

PATIENT CARE

Special laboratory facilities

During the year, special laboratory facilities provided for research and patient care are as follows:

S. No.	Facility	User number		Specimens analyzed	
		Internal	External	Internal	External
1.	Transmission electron microscope	162	316	948	1723
2.	Immuno-electron microscopy	19	22	63	20

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor T.C. Nag chaired a scientific session at the XXXV Annual meeting of the EMSI, held in Delhi University Delhi, on July 9, 2014. He reviewed manuscripts from Tissue Cell, Cell Biology International and International Journal of Developmental Neuroscience.

11.7 Hostel Section

Superintendent

S.K. Khandelwal

Deputy Superintendent

D.N. Rao
S.K. Maulik
Raj Kumar Yadav
K.H. Reeta

S. Datta Gupta
Tanuj Dada
Vijay Sharma
Kapil Yadav

Neerja Bhatla
Rakesh Kumar
Puneet Misra
Kamlesh Sharma

Senior Administrative Officer

Keshav K. Giridhari

Accounts Officer

Trilok

Stores Officer

Narender

AIIMS has several halls for residence with a capacity of over 1200 single/double rooms, 174 married accommodations and 388 accommodations for nursing students/staff nurses. These are spread over different hostels and residences in the AIIMS Main Campus, Masjid Moth, Ayurvigyan Nagar, Transit Accommodation and the JPNATC Hostel (Raj Nagar). The details are as follows:

S. No.	Hostel	Location	Single room	Double/Three/Four/Five seater	Guest room (with two beds)	Total
Gents Hostels						
1.	I (Charak)	Main campus	62	3+0+0+0	–	68
2.	II (Jivak)	Main campus	55	2+0+0+0	1	60
3.	III (Sushruta)	Main campus	70	6+0+0+0	1	83
4.	IV (Madhava)	Main campus	53	7+0+0+0	–	67
5.	V (Nagarjuna)	Main campus	52	5+0+0+0	–	62
6.	VI (Vagbhata)	Main campus	69	6+0+0+0	–	81
7.	VII (Ashwini)	Main campus	108	0+0+0+0	1	108
8.	VIII (Bharadwaj)	Main campus	108	0+0+0+0	1	108
9.	RPC-1 (Dhanwantri)	Main campus	72	–	1	73
10.	MMRDH (Single)	Masjid Moth	154	–	6	160
11.	JPNATC	Raj Nagar	57	–	2	59
		Total				829
Married Quarters						
12.	F type	Ansari Nagar (West)		17		17
13.	MMRDH	Masjid Moth	42			42
14.	A.V. Nagar	A.V. Nagar	80			80
15.	F.T.A.	A.V. Nagar	29			29
16.	JPNATC Raj Nagar		6			6
		Total				174

Ladies Hostels

17.	IX (Saraswati)	Main campus	62	16+1+1+0	1	102
18.	X (Pravati)	Main campus	106	0+0+1+1	1	117
19.	RPC-II (Lakshmi)	Main campus	20	13+0+0+0	1	47
20.	Ladies Hostel XI	Main campus	–	15+0+0+0	–	30
Total						296

New Nurses Hostel, Masjid Moth

21.	Nursing students	Masjid Moth	160	90+4+0+0	2	354
22.	Staff nurses	Masjid Moth	34	34		
Total						388

Grand Total **1,687**

The AIIMS follows the policy of Zero Tolerance towards ragging in the AIIMS Hostels. For this purpose, an anti-ragging cell has been created and our staff of wardens and security personnel are ready to guide and support any student with a complaint or inconvenience.

INFRASTRUCTURE ADDED

- 1. New Hostels:** Due to acute shortage of rooms for students/residents at AIIMS, the hostel committee organized several meetings with the administration and the engineering section to expedite the construction of the new hostel block in the Masjid Moth area. Presently, 3 towers are under construction with a total strength of 350 rooms. Another block is under active consideration. One of the new hostel blocks is ready for possession and is also fully furnished and two blocks are expected to be ready by 2016.
- 2. Upgradation of Existing Rooms:** The Superintendent of Hostels has been concerned with the facilities provided to the residents/students in various hostels. Accordingly, all the existing rooms are to be renovated in a phased manner. To begin with, a model room has been prepared in Hostel No. VII with in-built cupboards, wash basin and new electrical fittings and flooring. All the undergraduate and postgraduate rooms in Hostel No. I to XI will be renovated fully as per the model room renovated in Hostel No. VII. This will begin with the postgraduate hostels. This will upgrade the living standards of the residents and provide a more congenial environment for their studies.
- 3.** For women hostellers, a 24x7 tea/coffee shop is under process.
- 4.** A recreation room for undergraduate students has been started in the Gents Hostel.

SAFETY AND SECURITY MEASURES

- 1.** All Gents Hostels I to VIII have been provided with appropriate gates for better security. Round the clock security guards have been posted in all hostels for safety of the residents. AIIMS has provided cab facility to female residents, who are on late evening duties and stay within a radius of 5 km from AIIMS. A Grievance Cell (email ID aiimshostelgrievance@gmail.com) has been in operation in room No. 13 in Gents Hostel complex. Faculty from the department of Psychiatry are on duty from 5.30 p.m. to 6.30 p.m. (Monday to Friday) to address the grievances of students
- 2.** Entrance gates at all hostels to be accessed with bar-coding.
- 3.** CCTV installation in all hostels at specified location is under process.

FUTURE PLANS

- 1. Infrastructure:** Since the strength of Nursing students has increased appreciably over the past few years, additional rooms have been planned in the New Nurses Hostel block in Masjid Moth area.
- 2. Hostel Rule Book:** The Hostel Committee has undertaken the task of revising the Hostel Rule Book with complete information on duties and responsibilities of the students and residents and allotment rules.
- 3.** A grievance cell in N.N.H.M.M and Ladies Hostel is to be started.

11.8 Institution Ethics Committee

The Institute Ethics Committee activities were as follows:

Meetings

The number of meetings of the Institute Ethics Committee were as follows:

- Institute Ethics Committee 12
- Institute Ethics Committee for postgraduate research for basic and clinical sciences 11

Projects reviewed

The number of projects reviewed by the Institute Ethics Committee were:

- New project proposals 476
- Old projects 148

The number of projects reviewed by the Institute Ethics Committee for postgraduate research for basic and clinical sciences were:

- New thesis 584
- Review thesis 400

In addition, the Institute Ethics Committee continued to receive notifications of serious adverse reactions, serious adverse events, six monthly progress report and completion reports, etc. The Institute Ethics Committee's standard operating procedures (SOP's) were modified as per the need and are available on the AIIMS website.

SIGNIFICANT EVENTS

The Institute Ethics Committee and Institute Ethics Committee for postgraduate research for basic and clinical sciences were registered with DCGI and FWA.

11.9 K.L. Wig Centre for Medical Education and Technology (CMET)

Chief

O.P. Kharbanda

Professor-In-Charge

K.K. Deepak (for Faculty Development of Basic Sciences)
Rita Sood (for Faculty Development of Clinical Faculty of Medicine and Allied disciplines)
Anurag Srivastava (for Faculty Development of Surgical disciplines)

Education Media Generalist

Yogesh Kumar

Manager (HRD)

Sourav Sarkar

Lecturer in English and Communication Skills

Saraswati (On contract)

HIGHLIGHTS

The first time a six monthly calendar of events was distributed well in advance to the faculty and residents which resulted in better turnout of the participants.

This year for the first time a series of induction programs were organised for nurses (788 in 20 batches) and for laboratory technicians (144 in 6 batches). The induction program for nurses included topics like pride of AIIMS, team building, infection control, ward and record management, biomedical waste management, communication skills for nursing and stress management; whereas that meant for laboratory technicians included laboratory safety, infection control, laboratory management besides soft skills.

Further, for AIIMS faculty there were 8 Microteaching sessions (for 44 faculty) and a Basic Course in Medical Education (for 35 faculty) to enhance their skills in teaching methodology and understanding towards medical education.

In addition, both for residents & faculty there were six training programs organized to enhance their computer skills on topics like information retrieval, bibliography management, tools for scientific writing in MS Word, designing effective presentation, animation in powerpoint and medical photography.

There was a training program on Accrual Accounting for finance staff.

In brief, CMET organised a total of 57 workshops and also played a vital role in organizing "Institute Day Exhibition-2014".

EDUCATION

CME/Workshops/Symposium/National and International conferences

Fifty-seven workshops were held. The details are:

1. Lecture: Challenges in Medical Education, 7 April 2014.
2. Writing a Scientific Paper, 25–26 July 2014.
3. Microteaching, 1, 22 August; 10, 19, 29 September; 8, 31 October; 21 November 2014.
4. Communication Skills 7, 14, 21, 28 August 2014.
5. Writing a Research Paper (with NMJI), 2–30 August 2014.
6. Lecture: E-Learning & Smart phones in learning, 17 September 2014.
7. Lecture: Concept of item analysis, question bank and computerization, 9 October 2014.
8. Teaching in Clinical Environment, 29 October 2014.
9. OSCE and OSPE, 13 November 2014.

10. Information retrieval in Health Sciences & Bibliography Management, 15 January 2015.
11. Tools for Scientific Writing in MS Word, 22 January 2015.
12. Designing Effective Presentation, 11 February 2015.
13. Teaching and Learning Communication Skills in Medicine, 13 February 2015.
14. Student-oriented incorporation of research into clinical sciences education, 25 February 2015.
15. Information Retrieval in Health Sciences & Bibliography Management, 27 February 2015.
16. Animation in Power point, 5 March 2015.
17. Writing a Research Paper, 13–14 March 2015.
18. Introduction to Medical Photography, 19 March 2015.
19. Teaching and Learning Communication Skills in Medicine, 20 March 2015.
20. Basic Course in Medical and Health Professionals' Education, 25 to 27 March 2015
21. Nursing Induction Program, 788 participants, 20 batches, 26 May to 27 August 2014.
22. Laboratory Technician Induction Program, 144 participants, 6 batches, 2 February to 25 March 2015.
23. Training on Accrual Accounting, 32 participants, 9 to 20 February 2015.

Facilities Extended by CMET

The department extended logistic and technical support and provided venue to:

1. Various departments of AIIMS to organize 59 workshops/CME (107 days booking).
2. College of Nursing, AIIMS for their practical sessions (15 days)

Exhibitions organized

CMET played a key role in organizing the 59th Institute Day Exhibition from 25 to 27 September 2014. The highlights were:

1. The theme was '**Better Health Better Life**'.
2. For the first time a logo competition was organised for the event.
3. 48 departments participated in the exhibition
4. There were 245 posters/exhibits along with video display and skit presentation.
5. Shri Lov Verma, Health Secretary, Ministry of Health and Family Welfare, Government of India and Director, AIIMS, presided over the function.

Lectures delivered

Mr Yogesh Kumar

Delivered lectures at 18 sessions of the Nursing Induction Program entitled 'Pride of AIIMS'. In addition, he lectured at 52 other events organized by CMET for faculty, residents, students and staff at AIIMS. He also taught at the Department of Radiodiagnosis at AIIMS on 13 June 2014 on 'Information retrieval in Health Sciences and Bibliography Management'.

Details of Media Production

Particulars	Number of requisitions
Clinical Photography	26,084*
X-ray scan, CT MRI & Slide scan	9130*
Photographic colour prints, scanning of images and documents	782
Video recording and editing	509
Designing/printing of large format posters	1645

*Indicates total number of photographs or scans

VISITING SCIENTISTS

Ms Mary Keightley, Managing Director, Mind Associates, U.K. delivered lectures on 'Why Optimism Wins?' and 'Mental Toughness for Women' on 17 April 2014.

11.10 Media and Protocol Division

Chairperson

Neerja Bhatla

Spokesperson

Amit Gupta

Media Coordinator

Rajeev Maikhuri

Assistant Public Relations Officer

V.P.S. Chauhan

Public Lecture Series Programme

The division organized nine public lecture programmes to enhance public awareness. These were:

Date	Public Lecture	Department
21/08/2014	Dengue and Ebola virus infections	Medicine, Pulmonary Medicine and Sleep Disorders and Centre for Community Medicine
27/09/2014	Be Heart Wise	Cardiology, Paediatrics, Cardiothoracic and Vascular Surgery
29/10/2014	Prevent stroke: Save the Brain	Neurology
25/11/2014	Recurrent cough, cold and wheezing in children: Is it Asthma?	Paediatrics
11/12/2014	Children with disabilities: Let's make their lives better	Pediatrics and Physical Medicine and Rehabilitation
28/01/2015	Breast and Cervical cancer: Prevention and management	Surgery, Obstetrics and Gynaecology, and Dr BRA IRCH
14/02/2015	Childhood cancer is Treatable	Paediatrics, Haematology and Dr BRA IRCH
11/03/2015	Glaucoma: Improvements in care	Ophthalmology (Dr R.P. Centre)
20/03/2015	Healthy body through Healthy mouth	Centre for Dental Education and research, Neurology, Cardiology, Endocrinology

Press Conferences and Publicity:

The division organized twenty-five press conferences to highlight various achievements at AIIMS like new services and facilities inaugurated, new surgical techniques and management of difficult cases and to highlight new research.

The division also provided publicity and coverage of at least 39 International and National conferences, symposia, workshops, seminars, awareness programmes, exhibitions and other such important activities.

The division also facilitated the visits of thirteen international delegations that visited AIIMS for overviews, expert group meeting and to create MoUs with various international universities and institutes. These visits resulted in the signing of an MoU between the Department of Surgical Disciplines and the Osaka University in Japan to develop new surgical techniques. A similar understanding was developed with the National Cancer Institute of USA to develop the new National Cancer Institute at Jhajjar in Haryana. Dr Dinda created collaboration with Italy and USA to develop Nano-Engineering in medicine.

PUBLICATION

The division updated the AIIMS telephone directory.

12. Publications

Journals

1. Aathira R, Jain V. Advances in management of type 1 diabetes mellitus. *World J Diabetes* 2014 Oct 15;5(5):689-96.
2. Acharya AS, Kaur R, Prasuna JG, Rasheed N. Making Pregnancy Safer-Birth Preparedness and Complication Readiness Study among Antenatal Women Attendees of a Primary Health Center, Delhi. *Indian J Community Med* 2015 Apr-Jun;40(2):127-34.
3. Acharya S, Goyal A, Bhalla AS, Sharma R, Seth A, Gupta AK. In vivo characterization of urinary calculi on dual-energy CT: going a step ahead with sub-differentiation of calcium stones. *Acta Radiol* 2015 Jul;56(7):881-9.
4. Acharya SK. Epidemiology of hepatocellular carcinoma in India. *J Clin Exp Hepatol* 2014;4:S27-33.
5. Adimulam G, Challa VR, Dhar A, Chumber S, Seenu V, Srivastava A. Assessment of cosmetic outcome of oncoplastic breast conservation surgery in women with early breast cancer: a prospective cohort study. *Indian J Cancer* 2014; 51: 58-62.
6. Aftab S, Baidya DK, Maitra S. New onset frequent ventricular ectopic in a human immunodeficiency virus infected woman after uneventful caesarean section under spinal anesthesia. *J Clin Anesth* 2015 May;27(3):2745.
7. Agarwal A, Jha A, Baidya DK, Trikha A. Anesthetic considerations in parturients with liver transplant. *J Obstetr Anaesth Crit Care* 2014;4(1):4-11.
8. Agarwal KK, Karunanithi S, Das KJ, Jain S, Kumar R. Evaluation of hepatobiliary systems in conjoined twins by (99m)Tc-mebrofenin. *Indian J Nucl Med* 2014 Jul;29(3):199–200.
9. Agarwal KK, Karunanithi S, Jain S, Tripathi M. A case of dual ectopy thyroid along the thyroglossal tract demonstrated on 99mTc-Per technatate hybrid single photon emission computed tomography/computed tomography. *Indian J Nucl Med* 2014 Apr;29(2):105-7.
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13. Agarwal KK, Sharma P, Singla S, Suman Kc S, Bal C, Kumar R. A rare case of non-small cell lung cancer metastasizing to the pituitary gland: detection with (18)F-FDG PET-CT. *Clin Nucl Med* 2014 May;39(5):e318-9.
14. Agarwal KK, Singla S, Arora G, Bal C. (177) Lu-EDTMP for palliation of pain from bone metastases in patients with prostate and breast cancer: a phase II study. *Eur J Nucl Med Mol Imaging* 2015 Jan;42(1):79-88.
15. Agarwal KK, Tripathi M, Karunanithi S, Das CJ, Suri V, Nalwa A. Crossed cerebellar diaschisis in cerebral toxoplasmosis demonstrated on ¹⁸F-FDG PET/CT. *Rev Esp Med Nucl Imagen Mol*. 2014 Nov-Dec;33(6):397-8.
16. Agarwal M, Purohit AH, Mahapatra M, Kumar R, Mishra P, Seth T, Saxena R. Pleural effusion as an unusual initial presentation of acute myeloid leukemia. *Indian J Hematol Blood Transfus* 2014 Sep;30(3):195-6.
17. Agarwal MB, Malhotra H, Chakrabarti P, Varma N, Mathews V, Bhattacharyya J, et al. Myeloproliferative Neoplasms Working Group (MPN-WG) Consensus recommendations for diagnosis and management of primary myelofibrosis, polycythemia vera and essential thrombocythemia. *Indian J Med Paediatr Oncol* 2015; 36 (1): 3–16.
18. Agarwal N, Singh S, Kriplani A, Bhatla N, Singh N. Safety and efficacy of gabapentin in management of psychosomatic and sexual symptoms in postmenopausal women: A pilot study. *J Midlife Health* 2015; 6(1): 10–5.

19. Agarwal N, Singh S, Kriplani A, Bhatla N, Singh N. Evaluation of gabapentin in management of hot flushes in postmenopausal women. *Post Reprod Health* 2014;20(1):36–38.
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26. Agarwal T, Jhanji V, Singh D, Khokhar S. Two-step technique for posterior optic buttonholing of intraocular lens. *Optom Vis Sci* 2014 Apr;91(4 Suppl 1):S17–9.
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31. Aggarwal P, Galwankar S, Kalra OP, Bhalla A, Bhoi S, Sundarakumar S. The 2014 Academic College of Emergency Experts in India's Education Development Committee (EDC) White Paper on establishing an academic department of Emergency Medicine in India - Guidelines for Staffing, Infrastructure, Resources, Curriculum and Training. *J Emerg Trauma Shock* 2014 July;7(3):196–208.
32. Aggarwal R, Dash D, Soni KD, Mishra B. Intensive care unit management of a post-traumatic pneumonectomy case. *Ind J Crit Care Med* 2014;18:763–65.
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ALL INDIA INSTITUTE OF MEDICAL SCIENCES
RECEIPT & PAYMENT ACCOUNT
FOR THE YEAR 2014-2015

AIIMS (Main) (A)

(Amount in Rs.)

RECEIPT				PAYMENT	
Particulars	2014-15	2013-14	Particulars	2014-15	2013-14
1 OPENING BALANCES			1 Grants transferred to the Centres/Schemes Cell		
A Cash at bank			A Dr. R.P. Centre		
i) (a) AIIMS (MAIN) 1643778222			i) PLAN		
(b) Unspent Balance of specific grants remained with AIIMS(M) 328403940	1972182162	2421796446	a) Capital Assets	450000000	303300000
ii) Scheme Cell 151959615	170451547		b) Grant in Aid Salary	680000000	561000000
			c) Grant in Aid General	1100000000	1140000000
B CASH IN HAND (IMPREST)			ii) Non-Plan		
i) AIIMS (Main)			a) Grant in Aid Salary	5266000000	4996000000
Balance as per cash book of the cashier 713150	703950		b) Grant in Aid General	1808000000	1600000000
C AMOUNT LYING UNDISBURSED			B C.N. Centre		
i) AIIMS (Main)			i) Plan		
ii) Scheme Cell 182500	61475		a) Capital Assets	2792000000	4500000000
			b) Grant in Aid Salary	3757000000	1208250000
D POOR PATIENT A/C			c) Grant in Aid General	1450000000	1500000000
AIIMS (Main)			ii) Non Plan		
a) Cash/Bank 2990178	2597226		a) Grant in Aid Salary	12034000000	10935000000
b) FDRs 1202610	1202610		b) Grant in Aid General	3306000000	3300000000
E PATIENT TREATMENT A/C			C N.D.D.T.C.		
AIIMS 114796158	106306586		Plan		
			i) Capital Assets 20124000		
F Hostels			ii) Grant in Aid General 59300000		
a) Cash in hand			ii) Grant in Aid Salary 869000000	1663240000	1444000000
b) Cash at bank 1224480	956437		D Dr. B.R.A.I.R.C.H.		
c) FDR's 4539406	5283021		i) Plan		
			a) Capital Assets	4911200000	9840000000
			b) Grant in Aid Salary	1605000000	1453500000
			c) Grant in Aid General	6750000000	3410000000

G	DEPARTMENT OF GERIATRIC MEDICINE			ii) Non-Plan			
	Cash at bank	22757485	28340109	a) Grant in Aid Salary	461000000	374100000	
				b) Grant in Aid General	300000000	260000000	
H	CUSTOM DUTYA/C			E	J.P.N.APEX TRAUMA CENTRE		
	Cash at bank	179115763	195937688		Plan		
I	PDAA/C				i) Capital Assets	183798466	159614434
	a) Cash at bank	12319405	13653385		ii) Grant in Aid (General)	567800000	500000000
					ii) Grant in Aid (Salary)	693700000	591025000
J	NEW PENSION SCHEME			F	CENTRE FOR DENTAL EDUCATION & RESEARCH		
	a) Cash Book	7389978	7613109		Plan		
K	GENERAL PROVIDENT FUND				i) Capital Assets	200000000	160000000
	Cash Book	100908809	94780742		ii) Grant in Aid General	620000000	531250000
					ii) Grant in Aid Salary	113410000	435000000
2	GRANTS FROM GOVT. OF INDIA			2	ADMINISTRATIVE EXPENDITURE		
a)	PLAN				AHIMS (MAIN)		
	i) Capital Assets	2640000000	2150000000	a)	Pay and allowances	3806746737	3465356326
	ii) Grant in Aid General	1700000000	1400000000	b)	Travelling Allowances	26561800	28065041
	iii) Grant in Aid Salary	1870000000	1300000000	c)	Stipend	34502518	30464039
b)	Non-Plan			d)	Leave salary & Pension contribution	1692353	1611517
	i) Grant in Aid General	2980000000	2450000000	e)	Pensionary Benefits	730283344	682913755
	ii) Grant in Aid Salary	7030000000	6250000000	3	Office Contingency	627531301	602423155
c)	N.D.D.T.C.			4	Material & Supply (Non-Plan)	1781495563	1580151904
	Plan			5	Repair and maintenance of Machinery & Equipment	50040193	26987234
	i) Capital Assets	20124000		6	Maintenance of buildings	182490458	152280924
	ii) Grant in Aid General	593000000		7	Employees Insurance Scheme	9780144	15452805
	ii) Grant in Aid Salary	869000000	144400000				
d)	Oversight Committee (Plan)						
	i) Capital Assets	150000000					
	ii) Grant in Aid Salary	1089000000	200000000				
3	Miscellaneous Receipts	207130465	304465872				
4	Hospital Receipts	230137000	221831999				
5	Interest	175251740	280176542				
6	Licence Fee	25504758	29976971				

7	Tution Fee /Examination Fee	24044324	22383500	8	GPF.	467982896	434579282
8	Employees Health Scheme (EHS)	43032031	39049789	9	Recoverable Advances		
9	Pot Fund	152412	324020	a) Car		280000	160000
10	Employees Insurance Scheme	15088610	12058837	b) Scooter/Motor Cycle		947000	822000
11	GPF	467982896	434579282	c) Bicycle		3000	
12	Out side recoveries	637352917	568174585	d) House Building Advance		1059950	546090
13	Security Deposits/ Earnest Money	59668835	57817949	e) Computer		780000	930000
14	Caution Money	59000	56700	f) Festival		4986000	3045000
15	Leave Salary & Pension contribution	86323	509671	10	Expenditure out of grant received for specific purpose (Scheme Cell)		
16	Recoverable Advances			i)	Appendix-A	823845015	
a) Car		191088	628812	ii)	Add undisbursed for 2013-2014 paid now	182500	
b) Scooter/Motor Cycle		624721	1683124	iii)	Less undisbursed for 2014-2015	290000	823737515
c) Bicycle			81228	11	Post Partum programme (Incentive money)		494510
d) H.B.A.		2161128	2080588	12	Books & Publications	103780948	28785730
e) Computer		924876	1192274	13	PLAN		
f) Festival		3957075	3125725	a) Salary		621348709	497307113
17	Post Partum Programme (Incentive money)	550000	700000	b) Spares & Accessories		214139945	158813716
18	Grants received for specific purpose Appendix-A (Scheme Cell)	691607948.00	678689427	c) Machinery & Equipment		440410770	546243470
				d) Building Construction			
				i) Major Works		207130599	85129100
				ii) Minor Works		271243888	215459730
				e) Computerisation		107302512	27887492
				f) Travelling Allowances		29477521	26970452
				14	Purchase of Vehicles		
				(a) Transport Office		5399788	6822189
				(b) Hospital Store			

19	Schemes Direct received	65128903	67412100	15	Advance Payments		
20	Miscellaneous Donations (Appendix D)	49239622	46395767	a)	Material & Supply (NP) for foreign purchase	2986811	5997407
21	Revolving Funds	73748000	72160000	b)	Machinery & Equipment(Plan) for foreign purchase	434808527	327073375
				c)	PAO for procurement of Stores	2000000	2500000
				d)	Temporary/Contigent Advances	47473500	20867188
22	New Pension Scheme	104352134	79079853	e)	Private firms for stores	28720406	7941690
23	Cochelar Inplant Patient Treatment A/c	26987000	53275500	f)	Custom Duty for Machinery & Equipment	50000000	
				g)	For Books & Journals	17084306	65456888
24	Deposit Work			h)	National Informatics Centre Services Inc for computerisation	4432357	10827211
(a)	Power Grid Corpn. Of India for construction of Dharmasala at Trauma Centre		29000000	i)	HSCC for surgical block (oversight)	166694714	40000000
(b)	M/s R.S.S.S. Vishram Sadan		352000	j)	HSCC for PC & Teaching Block phase II (oversight)		78300000
(c)	Rajgarhia, Surekha & Shri Sai Vishram Sadan		800000	k)	HSCC for cont. of Hostel Bolck at AIIMS Campus (oversight)		210000000
25	UNDCP Grant		5000000	m)	Kohli & Co. for p/o A.C.(major work)		235810
26	Prime Minister Relief Fund		10000000	n)	BRP (major work)		6033756
				o)	Executive Engineer (major work)		20900000
				p)	Ex. Engg., CPWD (major work)		10633620
27	Receipt for conference	6000242	1275000	r)	HSCC for underground parking (major work)	1877000	3377000
28	Donation			s)	Blue Star Ltd for A.C. (maintenance)	6293392	2600576
(i)	R.L. Rajgarhia		385000	t)	HSCC for renovation of CNC -CCU ward (major work)		20100000
(ii)	Dr B K Anand (unit Trust)		100000	u)	Sidwal Refregration for p/o A.C (major work)	305384	1416168
(iii)	Hari Prakash Oration		500000	v)	Hitachi Homes for p/o AC (major work)		81817
(iv)	O.P Ghai		1000000	w)	LG Elect. For p/o AC (major work)		2385534
(v)	Sarinder Man Singh		500000	x)	LG Elect. For replacement of AC (major work)		2986144
29	Receipt for Asian Society for paed Urology		500000	y)	Secy., NDMC (major work)		4560000
30	Receipt from Director General ICMR		487197				

31	Receipt for Student Union Pulse	602000	z)	HSCC for renovation of CCU (major work)			10000000
32	Receipt for The energy resources Institute	75000	aa)	HSCC for Trauma Centre (major work)			56500000
33	Receipt for National Symposium	75000	ab)	HSCC for const. for resident (major work)			100000000
			ac)	Universal Comfort for p/o AC (major work)	2845290		3555107
			ad)	CPWD for boundary wall & nallah (major work)	9128220		
			ae)	Universal Comfort for water cooler (major work)	1542893		
			af)	HSCC for const. of Pvt. Ward (major work)	92000000		
			ag)	HSCC for Trauma Centre (major work)	100000000		
			ah)	HSCC for night shelter (major work)	50000000		
			16	Security Deposit/ Earnest Money			
			(i)	Refund against the receipts upto the year 2013-14	47089709		
			(ii)	Pertains to 2014-15	14013000	61102709	44555514
			17	Outside recoveries	649129163.00		580223017
			18	Miscellaneous Donations (Appendix-D)	49051570		44488173
			19	Revolving Funds	66919000		68145000
			20	New Pension Scheme			
			i)	to National Securities Depository Ltd.	198105738		139169984
			ii)	to NPS A/c	31080228		19469897
			21	Cochelar Inplant Patient A/c	26793000		54240000
			22	Deposit Work			
			(a)	M/s R.S.S.S. Vishram Sadan Rajgarhia, Surekha & Shri Sai Vishram			352000
			(b)	Sadan			136789
			23	Deposit Linked Insurance Scheme	480000		391548

				24	Oversight committee			
					a) Major works			199263665
					b) Pay & Allowances	217900000		191000000
					c) Machinery & Equipment (Store)	22843608		9030176
				25	Payment to The energy resources Institute			75000
				26	Payment to National Symposium			75000
				27	UNDCP Grant			5000000
				28	Pot Fund (expd)	6500		
				29	Prime Minister Relief Fund			10000000
				30	Payment for Student Union Pulse			602000
				31	Refund for Conference	6000242		1275000
				32	Investment			
					(i) R.L. Rajgarhia			385000
					(ii) Dr B K Anand (unit Trust)	100000		
					(iii) Hari Prakash Oration	500000		
					(iv) O.P Ghai	1000000		
					(v) Sarinder Man Singh	500000		
				33	Payment to Asian Society for paed Urology			500000
				34	Payment to Director General ICMR			487197
34	POOR PATIENT ACCOUNTS			35	POOR PATIENT ACCOUNTS			
	a) Grant	2720037	385806	1	AIIMS	79090		97800
	b) Interest	454647	104946					
	c) FDRs							
35	PATIENT TREATMENT ACCOUNTS			36	PATIENT TREATMENT ACCOUNTS			
	(a) Grant	80695940	97787697	1	AIIMS	60525443		74299704
	(b) Interest	4782925	4231872	2	Bank clearing charges	5704		8212
				3	Interest earned			
					transfer to AIIMS Main A/c			19222081
36	HOSTELS			37	HOSTELS			
	I) Security Deposits	1421000	1320000	1	Security refunds	1277000		1182500
	ii) Miscellenous Receipts	810656		2	Miscellenous Expenditure			
	iii) Interest earned	46525	174932	3	Deposited in AIIMS Main A/c	1374185		788004
37	DEPARTMENT OF GERIATRIC MEDICINE			38	DEPARTMENT OF GERIATRIC MEDICINE			
	(i) Interest received	921251	1170525		(i) Salary	2910000		
					(ii) Material & Supply (Non-Plan)	403304		2469845

				(iii) Research Activities	2575000	
				(iv) Advance to Engg Deptt		350000
				(v) Machinery & Equipment	194513	22045
				(vi) Refund to AIIMS		
				(vii) Furniture		758502
				(viii) Bank Charges	102	402
				(ix) Training		242355
38	CUSTOMDUTYACCOUNTS			39	CUSTOMDUTYACCOUNTS	
	Receipts	110000000	140000000		(i) Payments	133680823 156821925
					(ii) correction for (2013-14)	108851062
39	PDACCOUNTS			40	PDACCOUNTS	
	Receipts	4500000	3500000		Payments	4132694 4833980
40	NEWPENSIONSCHEME			41	NEWPENSIONSCHEME	
	i) Receipts (Legacy data)	178978493	24279265		i) Payments (Legacy data)	162336563 26751950
	ii) Interest received on FDR	14266208	13261251		ii) Bank Charges	1007
	iii) Interest received on Bank Account		1489310		iii) Investment made on FD	627500000 772500000
	iv) FD Maturity amount	600000000	760000000			
41	GENERALPROVIDENTFUND			42	GENERALPROVIDENTFUND	
	i) GPF Subscription	881646867	683373681		i) Withdrawal	796851129 565667134
	ii) Interest received	338791585	326700804		ii) Investment	1887432648 1529579284
	iii) Invest maturity	1425402450	1091300000			
				43	CLOSING BALANCES	
				A	CASH AT BANK	
				1	a) AIIMS(Main) 1654755804	
					b) Unspent Balance of Specific Grants remained with AIIMS (Main) 363262490	2018018294 1972182162
				2	Schemes Cell	99992901 151959615
				B	CASH IN HAND (IMPREST)	
				1	AIIMS (Main)	
					a)Balance as per cash book of the cashier	773150 713150
				C	AMOUNT LYING UNDISBURSED	
				1	AIIMS (Main)	
				2	Scheme Cell	290000 182500

	D POOR PATIENT ACCOUNT		
	1 AIIMS (Main)		
	(a) Cash/Bank	5758278	2990178
	(b) FDR's	1530104	1202610
	E PATIENT TREATMENT A/C		
	AIIMS	139743876	114796158
	F HOSTELS		
	1 Cash in hand		
	2 Cash at Bank	465320	1224480
	3 FDR's	4925562	4539406
	G DEPARTMENT OF GERIATRIC MEDICINE		
	Cash at Bank	20505817	22757485
	H CUSTOM DUTY ACCOUNT		
	Cash at Bank	46583878	179115763
	I PD ACCOUNT		
	Cash at Bank	12686711	12319405
	J New Pension Scheme		
	Cash Book	10798116	7389978
	K General Provident Fund		
	Cash Book	62465934	100908809
Sub-Total (A)	25776008331.00 23119625732	25776008331.00	23119625732

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
DR. RAJENDRA PRASAD CENTRE FOR OPHALMIC SCIENCES (B)
RECEIPTS AND PAYMENT ACCOUNTS FOR THE YEAR 2014-15**

RECEIPTS			PAYMENTS				
S.No.	Particulars	2014-15	2013-14	S.No.	Particulars	2014-15	2013-14
I	OPENING BALANCE						
A	Cash at Bank	107435696	102443276	IA	Pay & Allowance (Non-Plan)	521023438	498720337
B	Cash in hand			B	Pay & Allowance (Plan)	68000000	56100000
i)	Imprest	20000	20000	II	Travelling Expenses	4935251	7362686
ii)	Amount lying undisbursed	0	0	III	Office Expenses	19592776	21220893
				IV	Minor Works (Revenue General)	41157875	51846811
				V	Maintenance of buildings	16102101	11292628

II GRANT IN AID				VI Material & Supply			
i) Plan (Capital Assets)	449831632			i) Material & Supply	289319891		
ii) Salary Plan	68000000			ii) Advance Payment made	5729436	295049327	295414517
iii) GIA General (RG)	101948473			VII Refund of Security		2258000	4240594
iv) Salary Non-Plan	526600000			VIII Repair & Maint.of Mac. & Equip.Non-Plan		2187103	7205436
v) Non-Plan Others	180800000						
vi) Non-Plan (Received from main AIIMS' revenue)	0	1327180105	1133000000	IX Mach. & Equipment (Plan)			
III Security Deposits received		3910900	6514000	i) M&E (P) expenditure	351398219		
IV NIAF		100000	44600	ii) Adv. Payment (foreign purchase)	5663039	357061258	302024501
V Hospital Receipts including various kits		179983795	167843038	iii) CAMC (RG)		60790598	62154000
VI Interest on Recoverabl Adv.		162000	280295	X Vehicle purchase during 14-15		1468929	—
VII Misc. Receipts		1153294	558860	XI Furniture & Fixture		1666763	1275499
VIII AIIMS Recoveries Received		113444399	103960879				
IX Outside Recoveries Received		52046118	50883335				
X Interest on CLTD		10259246	15937525				
XI NSPB		—	—				
XII GRANT IN AID (NON-RPC SCHEMES)				XII PAYMENTS TOWARDS NON RPC SCHEMES			
1 ABN AMRO Natra Raksha		—	—	1 ABN AMRO Natra Raksha		—	—
2 Acuate Bacterial Conjectivities		—	—	2 Acuate Bacterial Conjectivities		—	—
3 Administrative charges received through Proiects		774729	1485022	3 Administrative Charges		426832	376041
4 Diabetic Retinopaty in Urban slum of Delhi (DRUSD)		0	3470990	4 Diabetic Retinopaty in Urban slum of Delhi (DRUSD)		1167317	3622716
5 AMD View Study		—	—	5 AMD View Study		—	—
6 Bacterial Corneal Ulcer Eye treatment		—	—	6 Bacterial Corneal Ulcer Eye treatment		—	—
7 Brimirdine DS/DDS		—	34668	7 Brimirdine DS/DDS		0	48310
8 Catract Patient (IOL)		—	842800	8 Catract Patient (IOL)		265440	349720
9 National Trachoma Survey Part- A & Part-B		1636237	6062056	9 National Trachoma Survey Part- A & Part - B		5097611	232476
10 Clinical Evaluation on Blink & Clean (AMO)		—	—	10 Clinical Evaluation on Blink & Clean (AMO)		—	—
11 Clinical Evaluation OZONE		—	—	11 Clinical Evaluation OZONE		—	—
12 GNEC (Guru Nanak Eye Centre)		—	—	12 GNEC (Guru Nanak Eye Centre)		—	—
13 Study Drug (DE-109)		250000	689300	13 Study Drug (DE-109)		236259	684905
14 CSIR		1347867	1574037	14 CSIR		1420615	1511055

15	DBT/MA	—	—	15	DBT/MA	—	—
16	DCDRF	—	—	16	DCDRF	—	—
17	DEGAS	—	—	17	DEGAS	—	—
18	DME	—	—	18	DME	—	—
19	DST Cyclosporine	—	—	19	DST Cyclosporine	—	—
20	DST Evaluation of Tear fluid	—	—	20	DST Evaluation of Tear fluid	—	—
21	SERB-DST	1800000	—	21	SERB-DST	1800000	—
22	ENDURE Study	—	—	22	ENDURE Study	—	—
23	ESG Evaluation Study on Gloucoma	—	—	23	ESG Evaluation Study on Gloucoma	—	—
24	FAME Study	—	—	24	FAME Study	—	—
25	FTG	120929	65462	25	FTG	120929	65462
26	High Precision Bio Analytical Facility (HP-BAF)	85972	74519	26	High Precision Bio Analytical Facility (HP-BAF)	188848	290956
27	ICMR	2027571	8685567	27	ICMR	3303013	8369215
28	INDEGEN (LSTM)	—	—	28	INDEGEN (LSTM)	—	—
29	INDEYE	—	—	29	INDEYE	—	—
30	INMAS Biomedical Dispensing Products	—	—	30	INMAS Dispensing Biomedical Products	—	—
31	INMAS Human Pharmacology	—	—	31	INMAS Human Pharmacology	—	—
32	Lux 201 BioScience	—	—	32	Lux 201 BioScience	51892	—
33	LUX 201 Omnicare	—	—	33	LUX 201 Omnicare	0	196736
34	MA Foundation	300000	300000	34	MA Foundation	279473	367992
35	MBDLILLY-LILLY	—	—	35	MBDLILLY-LILLY	—	—
36	Mayopia Study	—	—	36	Mayopia Study	—	—
37	M.K. Media corneal Transplant (Min. of Finance)	0	1000000	37	M.K. Media Corneal Transplant (Min. of Finance)	933314	1403666
38	Multifocal IOL	—	—	38	Multifocal IOL	—	—
39	NAB	—	—	39	NAB	—	—
40	Vision Delhi - PEC	7021327	5495236	40	Vision Delhi - PEC	5983425	4826970
41	Neema International	—	—	41	Neema International	—	—
42	PHFI/QEDJT-EER	50000	350000	42	PHFI/QEDJT-EER	252498	147502
43	LUMINOUS Study	70915	140811	43	LUMINOUS Study	190802	14081
44	NPCB DOS Training	819069	—	44	NPCB DOS Training	733010	288977
45	NPCB Eye Camp Godda Jharkhand	84828	—	45	NPCB Eye Camp (Godda Jharkhand)	84828	94425
46	NPCB/DBCS	647250	30000	46	NPCB/DBCS	678015	541791
47	NPCB-NSU	0	227973	47	NPCB-NSU	162290	134940
48	NPCB-SSU	190428	213189	48	NPCB-SSU	150000	177928
49	OEU	—	—	49	OEU	0	65600
50	ORBIS PECP	—	—	50	ORBIS PECP	0	0
51	Pharmacokinetic Quinacrine	—	—	51	Pharmacokinetic Quinacrine	0	0
52	Phase II age related macular degeneration menet study (ARMD)	—	—	52	Phase II age related macular degeneration menet study (ARMD)	—	—

53	Pink Eye (Bausch & Lomb)	—	—	53	Pink Eye (Bausch & Lomb)	—	—
54	Polyherbal Evaluagion DES	—	—	54	Polyherbal Evaluagion DES	—	—
55	Posudurex PS/DDS Allergan International	—	—	55	Posudurex Allergan International	—	—
56	PVD /VRT Study	—	—	56	PVD /VRT Study	—	—
57	Reliance Relinatra	—	—	57	Reliance Relinatra	—	—
58	ROP Services	224000	224625	58	ROP Services	356159	1038551
59	ROP Workshop	—	—	59	ROP Workshop	0	0
60	National ROP Summit	0	1587406	60	National ROP Summit	193821	1393585
61	Sight Saver	—	—	61	Sight Saver	—	—
62	SSMI-VFA	1000000	500000	62	SSMI-VFA	1065236	647039
63	Pravalence of Dry Eye	—	—	63	Pravalence of Dry Eye	91332	—
64	Treatment of Dry eye Allergan International	—	—	64	Treatment of Dry eye Allergan International	—	—
65	Prevalence study of trachoma Project	0	110000	65	Prevalence study of trachoma Project	0	109915
66	WHO Gujrat Survey	—	—	66	WHO Gujrat Survey	—	—
67	WHO Malaysia	—	—	67	WHO Malaysia	0	11000
68	WHO-SEIND	—	—	68	WHO-SEIND	—	—
69	WHO Short term training	—	—	69	WHO Short term training	0	0
70	Ozurdex Project	157500	709200	70	Ozurdex Project	201414	664074
71	Comprehensive Primary Eye care services (CPECS/DJJS)	500000	713630	71	Comprehensive Primary Eye care services (CPECS/DJJS)	803638	514132
				XIII	NIAF	40460	3122
XIII	Difference of Dr./Cr. Advice (LC Margin)	0		XIV	IDBI Debit/Credit Card, Commission & Service Charges	311168	20527
XIV RECOVERABLEADVANCE				XV	AIIMS Recoveries Remitted	113444399	103960879
a)	Motor Car	10000		XVI	Outside Recoveries remitted	52046118	50883335
b)	Scooter	0		XVII	N.P.S. Contribution remitted	8751840	7095009
c)	Cycle	0		XVIII	Difference of Dr./Cr. Advice (LC Margin).		
d)	H.B.A.	22560		XIX RECOVERABLEADVANCE			
e)	Computer	0		a)	Car		
f)	Festival	745875	778435	b)	Scooter	0	
				c)	Cycle	0	
				d)	H.B.A.	0	
				e)	Computer	90000	
				f)	Festival	769500	859500
							738750
				XX CLOSING BALANCE			
				a)	Cash at Bank (as per cash book)	222577695	
				b)	Cash in hand (Imprest)	20000	222597695
Total		1815582610	1617204980	Total		1815582610	1617204980

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
CARDIO-THORACIC & NEURO-SCIENCES CENTRE (C)
RRECEIPT & PAYMENT ACCOUNT FOR THE YEAR 2014-15**

RECEIPTS

PAYMENTS

S.No.	Particulars	2014-15	2013-14	S.No.	Particulars	2014-15	2013-14
A	Opening Balance			A	C.N. Centre		
a)	Cash at Bank			1	Administrative Expenditure		
i)	C.N. Centre	86827399	5981079	a)	Salaries (Non-Plan)	1197259227	1082342051
ii)	C.T. Patient A/c	29043470	1218507	b)	Wages	6607717	19001621
iii)	Neuro Surgery Patients A/c	29219234	22117646	c)	Travelling Allowances	3398491	2933437
iv)	Gamma Knife Patient A/c	75191121	42283799				
v)	Angio Patient A/c	76524727	32215235				
vi)	Poor Patient A/c	161132	132907				
b)	Cash in hand			2	Stores (Non-Plan)		
i)	C N Centre (Imprest with the Cashier)	61000	61000	a)	Repair & Maintenance of Mach. & Equip (Non-Plan)	3210104	4378967
ii)	C.T. Patient A/c	0	0	b)	Material & Supply (Non-Plan)	338277363	335957492
iii)	Neuro Surgery Patients A/c	0	0	c)	Material & Suuply (ORBO)	39920	29294
iv)	Gamma Knife Patient A/c	0	0	3	Stores (-Plan)		
v)	Angio Patient A/c	0	0	a)	Mach. & Equipt. 246292812 (Adv. Payment)		
c)	Fixed Deposits			b)	Mach. & Equipt. 164433300 (Indian Currency)	410726112	293505863
i)	C.N. Centre	0	0	c)	Furniture & Fixtures	262606	3545274
ii)	C.T. Patient A/c	0	100000000				
iii)	Neuro Surgery Patients A/c	15900000	15900000				
iv)	Gamma Knife Patient A/c	70000000	70000000				
v)	Angio Patient A/c	59800000	59800000				
d)	TDR			4	Revenue General		
	C.N. Centre 13-14	100000000		a)	Spare & Accessories etc. (CTC)	26702022	48365064
	during 14-15 (-)	100000000	0	b)	Spare & Accessories (NSC)	22264458	48914550
	C.N. Centre			c)	Salaries (Plan)	375637573	119824353
1	Grant-in-Aid			e)	Hiring of Man Power	29765831	15586439
a)	Capital Assets(New)	279200000	450000000				
b)	Revenue General (Plan)						
i)	Salary	375700000	375700000				
II)	Revenue General	145000000					

	Less:- Amount Trf. To patients A/c (-)	35000000	110000000	293325000	f) Minor Works	26227638	29484891
c)	Non-Plan				g) Cardiac Procedure (BPL)	0	20000000
i)	Salary	1203400000			H) NSC Poor patients fund	1263904	0
ii)	General	330600000	1534000000	1423500000			
2	Misc. Receipts		9037577	10446452	5 Maintenance of Building	41251891	30485765
3	Hospital Receipts				6 Office Contingency	9728256	9038429
a)	Private Ward	43271053					
b)	X-ray	947095					
c)	C.T. Scan Charges	4160250					
d)	Ultra Sound	198000	48576398	49197289			
4	Interest on TDR		14141283	32262983			
5	Refund and Recoveries		2829048	2460714			
6	Levy Charges		0	95380			
7	Rent Charges/Lic. Fee		1174005	1302787			
8	Transport Charges		0	0			
9	Patient Treatment (CGHS)		36690	0	7 Patient Treatment (CGHS)	439997	0
10	Donation		452700	350100	8 Donation	0	114400
11	Security Deposits/Earnest Money		6947000	10500500	9 Refund of Security Deposits / Earnest Money	3726935	6255485
12	NACO Fund		0	400000	10 NACO Fund	0	400000
13	RTGS amount received (Cr. Advice)			32954726	11 RTGS amount payment (Dr. Advice)	32241862	
14	Revolving Fund				12	Revolving Fund	
i	Neurology Patients A/c		20333934	15662701	i Neurology Patients A/c (Refund&Exp.)	9838704	17971231
ii	Thallium Test		3539250	3495250	ii Thallium Test	3892526	3374809
iii	Heart Transplant Donation		0	0	iii Heart Transplant Donation	0	0
iv	Cardio-Test		4933780	4858540	iv Cardio-Test (Exp.)	645803	6669226
v	Lab Charges		11230090	10953850	v Lab Charges	10147122	5081895
vi	MRI Charges		2200400	342000	vi MRI Charges	1459570	0
15	Recoveries Received				13	Recoveries Remitted	
i	Recoverable Advances				i	Recoverable Advances	
a)	Car Adv.		101592	204592	a) Car Adv.	0	180000
b)	Scooter Adv.		267746	237508	b) Scooter Adv.	150000	230000
c)	Cycle Adv		0	0	c) Cycle Adv	0	0
d)	Computer Adv.		711600	426742	d) Computer Adv.	660000	590000
e)	H.B.A.		769110	809250	e) H.B.A.	0	0
f)	Festival Adv.		1344824	1121775	f) Festival Adv.	1642500	1087500
ii	Amount Sent to P.A.O.(HBA)		49854	51686	ii) Amount Sent to P.A.O.(HBA)	49854	51686
					iii	GPF	
iii	GPF		128925242	118134951	a) GPF	128385245	
					b) Amount Sent to P.A.O. (G.P.F.)	539997	128925242
							118134951

F	Closing Balance		
a)	Cash at Bank		
i)	C.N. Centre	59783863	86827399
ii)	C.T. Patient A/c	23177532	29043470
iii)	Neuro Surgery Patients A/c	2995284	29219234
iv)	Gamma Knife Patient A/c	116772660	75191121
v)	Angio Patient A/c	25556493	76524727
vi)	Poor Patients A/c	210162	161133
b)	Cash in Hand		
i)	C.N. Centre (Imprest)	61000	61000
ii)	C.T. Patient A/c	0	0
iii)	Neuro Surgery Patients A/c	0	0
iv)	Gamma Knife Patient A/c	0	0
v)	Angio Patient A/c	0	0
c)	Fixed Deposits		
i)	C.N. Centre	0	0
ii)	C.T. Patient A/c	0	0
iii)	Neuro Surgery Patients A/c	31800000	15900000
iv)	Gamma Knife Patient A/c	70000000	70000000
v)	Angio Patient A/c	109800000	59800000
14	TDR	0	100000000
TOTAL		3976253014	3536276849

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
DR. BHIM RAO AMBEDKAR INSTITUTE ROTARY CANCER HOSPITAL (D)
Receipt & Payment Account for the year 2014-15

RECEIPTS			PAYMENTS				
SNo.	PARTICULARS	2014-15	2013-14	SNo.	PARTICULARS	2014-15	2013-14
1	Opening Balance			1	Pay and Allowances	465019294	376398299
	Cash at Bank	791001	6501558		Hiring of Manpower	33174902	26869292
	Cash in Hand	0	0	2	Advances		
2	Grant in AID				Computer Advance + Car/Scooter Advance	210000	180000
	Revenue General (Plan)				Festival Advance	634500	371250
	(i) Machinery & Equipments	491120000	98400000	3	TA/DA	7129270	9261643
	(ii) Grant in Aid Salary	16050000	14535000	4	Medical Oncology	0	0
	(iii) Grant in Aid General	67500000	34100000	5	RT Revolving Funds	565840	3461853
3	Non-Plan			6	Contingency Bills	2651358	2953542
	(i) Grant in Aid Salary	461000000	374100000	7	Maintenance of Building	12599530	10779144

(ii)	Grant in Aid General	300000000	260000000	8	EMD	60000	0
(iii)	From Revenue Rec. AIIMS	0	0	9	Material and Supply	264143365	232803173
				10	Maintenance of M & E	9112098	11869658
4	Other Receipts			11	Plan		
	ICMR	0	562000		Advance payment to		
	Interest	2947564	10147944		foreign purchase for M & E	352069290	65509142
	Hospital Receipt/Misc. Receipts	23847980	19905039		Machinery & Equipments	83848911	21449061
	RT Revolving Fund	363000	2606345		Custom Duty & PDA (Advance)	50191725	10360647
	Medical Oncology Fund	71960	503640		Furniture and Fixtures	0	0
5	Recovery of Advances				Vehicle Plan	0	1096227
	Car Advance Recoveries	0	0	12	Revenue General (Plan)		
	Scooter/Motor Cycle Adv. Rec.	218516	68116		(i) Comp. Annual maint. contact of M & E	50801865	15323298
	Computer Advance Recoveries	135400	130977		(ii) Minor Works	9106945	5594820
	Festival Advance	478800	336750		(iii) Sanitation	13749230	12087319
6	EMD	135000	0		(iv) Salary	15954188	14738000
7	AIIMS Recoveries Received	20991764	31540717	13	AIIMS Recoveries Remitted	20991764	31540717
8	Out Side Recoveries Received	97606430	70287247	14	Out Side Recoveries Remitted	97606430	70287247
9	POOR PATIENT ACCOUNTS			15	Closing Balances		0
a)	Cash at Bank	3074065	4216628		Cash in hand	0	0
b)	Receipt	806800	1446773		Cash at Bank	0	791001
c)	Misc.	50	102	16	POOR PATIENT ACCOUNTS		
d)	Interest	1973599	742666	a)	Payment	5285919	3332104
10	PATIENT TREATMENT ACCOUNTS			b)	Misc.	254	
a)	Cash at Bank	61424492	41703962	c)	Closing Balance	568341	3074065
b)	Receipt	51849467	63483112	17	PATIENT TREATMENT ACCOUNTS		
c)	Chqque Cancelled	146871	1380898	a)	Payment	44019457	44939688
d)	FDR	6000000	6000000	b)	Misc.	36622	3945
e)	Interest / Excess credit	37616	153	c)	Chqque Returned	200000	200000
11	HMC PF Accounts			d)	FDR	6000000	6000000
a)	Cash at Bank	561864	891653	e)	Closing Balance	69202367	61424492
b)	Receipt	2008217	0	11	HMC PF ACCOUNTS		
c)	Chqque Cancelled	11915	0	a)	Payment	499788	329129
12	Bank Overdraft	6363090	0	b)	Misc.	873	660
				c)	Closing Balance	2081335	561864
Total		1617515461	1043591280	TOTAL		1617515461	1043591280

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
JAI PRAKASH NARAYAN APEX TRAUMA CENTRE (E)
RECEIPTS AND PAYMENT ACCOUNTS FOR THE YEAR 2014-15

RECEIPTS			PAYMENTS		
S.No. PARTICULARS	2014-15	2013-14	S.No. PARTICULARS	2014-15	2013-14
1 Opening Balance			1 Revenue General Expenditure	8398013	5805755
Cash At Balance	46625167	81120147	Engg. Maintenances etc	132753739	114433004
Cash in Hand	6706	90000	2 Hiring of Manpower	80095826	69309948
2 Grant in Aid (Under – Plan – Head.(JPNATC))			Pay & Allowances	684965271	632959390
(1) Creation of Capital Assets (New)	183798466	159614434	Festival Advance	121500	131250
(2) Grant- in- Aid (Salary)	693700000	591025000	Material & Supply	319618052	311479264
(3) Grant- in- Aid (General)	567800000	500000000	Contingency Exp	22313639	25039848
3 Other Receipts			Computer Advance	30000	
(1) Hospital Receipt	6111715	10272742	3 Machinery & Equipment	64594824	92520063
(2) Misc. Receipt	549460	3534171	4 Advance Payments made to		
			Foreign Purchases	84410332	67094371
4 Earnest Money Deposit (EMD)	6044000	162000	Advance paid as Custom Duty	26000000	0
5 Interest on TDR	10546579	22683561	5 Furniture & fixture	475076	460598
6 Patient A/c Receipts	4200555	6218734	6 Refunds		
			Earnest Money Refund	1645000	3390000
7 Project Receipts			Patient Account	3465932	5545908
ATLS	3035000		7 Bank Charges	10058	142
AITSC	7125000		8 Project Expenditure		
INCPT	100000		ATLS	1704757	
			AITSC	4998140	
8 Festival Advance Recovery	172875	80625	INCPT	100000	
Computer Advance Recovery	11000		9 Closing Balance		
			Cash In Hand	0	6706
			Cash at Bank	94126364	46625167
Totals	1529826523	1374801414	Totals	1529826523	1374801414

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
CENTRE FOR DENTAL EDUCATION AND RESEARCH (F)
RECEIPTS AND PAYMENT ACCOUNTS FOR THE YEAR 2014-15**

RECEIPTS			PAYMENTS		
S.No. PARTICULARS	2014-15	2013-14	S.No. PARTICULARS	2014-15	2013-14
1 Opening Balance:					
Cash at Bank	-10464197	14557664	1 Pay & Allowances	39363106	43637402
Cash in hand (Imprest)	5000	5000	2 Office expenses	1138645	2963585
2 Grant in aid			3 Bank charges	5317	6423
Grant- in-Aid Capital	20000000	11664000	4 Material & Supply	50443154	37547714
Grant-in-Aid Salary	39375000	43500000	5 Maintenance of Building	13418543	9830734
Grant -in-Aid (General)	62000000	50012000	6 Machinery & Equipment	19840769	11645380
3 Security Deposit	5837216	2370700	7 "Security Refund"	2416140	855370
4 Interest on STDR by bank	3406427	2318559	8 T.D.R	0	30000000
5 TDR	30000000		9 Institute recovery remitted		
6 Miscellenous Receipt	22800	127068	GPF subscription & advance	600000	516304
7 Hospital Receipt	1578750	1472420	EIS	6000	6000
8 Institute Recovery			EHS	24000	24000
GPF subscription & advance	600000	516304	Licence fee	6020	7131
EIS	6000	6000	Water Charges	2324	2160
EHS	24000	24000	Misc. recovery	24145	14623
Licence fee	6020	7131	Faculty club	2500	2500
Water Charges	2324	2160	NPS	1259380	1101744
Misc. recovery	24145	14623	Tax Deducted at Source (Faculty)	1667093	1658824
Faculty club	2500	2500	10 Outside remitted		
NPS	1259380	1101744	Labour Cess	24412	74321
Tax Deducted at Source (Faculty)	1667093	1658824	D VAT	142309	25836
9 Outside Recovery			TDS (other than Salary)	440141	421340
Labour Cess	24412	74321	11 Closing Balance:		
D VAT	142309	25836	Cash at Bank	25130322	-10464197
TDS (other than Salary)	440141	421340	Cash in Hand (Imprest)	5000	5000
Total	155959321	129882194	Total	155959321	129882194

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (G)
RECEIPTS AND PAYMENT ACCOUNTS FOR THE YEAR 2014-15**

RECEIPTS

PAYMENTS

S.No.	Particulars	2014-2015	2013-14	S.No.	Particulars	2014-15	2013-14
1.	Opening Balance			1	Salary	86834850	79726591
	Cash at Bank	10433679	4210804	2	Hiring of Manpower (Wages)	13373275	10340246
2	Grant-In-Aid			3	Material & supply	34427627	33577390
	Grant In AID- Creation of Capital Assets	20124000	128600000	4	Earnest Money Deposits	150000	150000
	Grant in Aid -General (Plan)	59300000	15800000	5	Transfer to UNDCPA/c	0	4000000
	Grant in Aid- Salaries (Plan)	86900000	0	6	Temporary Advance for Training programme	3712000	0
3	Hospital Receipts	445035	397810	7	Imprest	40000	0
4	Miscellaneous Receipt	5290	1175	8	Employer Contribution-NPS	0	1524394
5	Earnest Money Deposits	200000	0	9	Capital new assets	3541118	245260
6	Fund Received under UNDCPA/c	0	4000000	10	Fixed Assets Furniture & Fixture	1253446	2282770
					New Vehicles	3208507	0
					Library Books	3395763	8553290
					Plants, Machinery & Equipments	5981042	2175814
7	Institute Recovery			11	Institute Remitted Recovery		
	GPF Subscription	9835780	8880649		GPF Subscription	9835780	8880649
	NPS Recovery	2257938	1658394		New Pension Scheme (NPS)	2257938	1658394
	House Building Advances	90726	87880		House Building Advances	90726	87880
	License Fees	71384	103437		License Fees	71384	103437
	Faculty Club	6500	7000		Faculty Club	6500	7000
	Relief fund	131783	68230		Relief fund	131783	68230
	officer Association Fund	2360	2080		officer Association Fund	2360	2080
	Computer Advances	6600	19200		Computer Advances	6600	19200
	Ehs Recovery	317050	316050		Ehs Recovery	317050	316375
	Festival Advances	21375	375		Festival Advances	21375	375
	karmchari Union	460	1000		karmchari Union	460	1000
	EIS Recovery	92885	51040		EIS Recovery	92885	51070
	Car Advance	11250	0		Car Advance	11250	0
8	Outside Recovery			12	Outside Remitted Recovery		
	LIC	59793	58572		LIC	59793	58572
	Society	5592998	4583630		Society	5592998	4583630
					TDS-Salary	5710869	6143285

Income Tax	5710869	6143285	TDS-Contractor	175097	191701
TDS	175097	191701	Laboure Cess	64305	53104
Laboure Cess	64305	53104	Court Recovery	49591	
			13 Closing Balance		
9 Court Recovery	0	49591	Cash at Bank	21490377	10433679
Total	201857157	175285007	Total	201857157	175285007

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
UNDCP ACCOUNT (H)
RECEIPTS AND PAYMENT ACCOUNTS FOR THE YEAR 2014-15**

RECEIPT

PAYMENT

S.No. Particulars	2014-15	2013-14	S.No. Particulars	2014-15	2013-14
1 Opening Balance			1 Salary		333300
Cash at bank	1899821	2260019	2 Hosipility	446445	
			3 Refreshment	0	14620
			4 Transport	0	32472
2 Grant in Aid	4360600	4620344	5 Accomodation	0	466170
			6 TA/DA	0	187309
3 Miscellenous Receipt	2653474	2510156	7 Bank Charges	485	173
			8 Advance	1438000	
			9 Advance for Training programme	5650000	3588792
			10 Contigency expenditure	6139	0
			11 Medicine	714302	
			12 Research Activity	272560	
			13 Funds Transferred to centres	443000	
			14 Closing Balance		
			Cash at Bank	2810826	1899821
TOTAL	8913895	9390519	TOTAL	8913895	9390519
Grand Total (A to H)	35081916312	31006057975		35081916312	31006057975

Financial Advisor

Sr. Financial Advisor

Director

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR 2014-2015

AIIMS (Main) (A)				(Amount in Rs.)			
EXPENDITURE		2014-15	2013-14	INCOME		2014-15	2013-14
NON-PLAN				GRANT-IN-AID			
1	Pay & Allowances	3806746737	3465356326	1	Oversight Committee (Plan)	108900000	200000000
				2	Grant in Aid Salary (Plan)	705209000	474015000
2	Stipend	34502518	30464039	3	Grant in Aid General (Plan)	465099877	166942059
				4	Non-Plan		
3	Travelling Allowances	26561800	28065041	i)	Grant in Aid General	2168600000	1700000000
				ii)	Grant in Aid Salary	4839000000	4282800000
4	Pensionary Benefits	730283344	682913755				
				REVENUE RECEIPTS			
5	Material & Supply			1	Hospital Receipts	229804884	224023174
	i) Expenditure during 2014-15	1781495563					
	ii) Adjustment of Advances	2986811		2	Tution Fee and Examination Fee	24044324	22383500
	iii) Adjustment of Advances	2068300					
iv)	Adjustment of Advances	6822192	1793372866	3	Employees Health Scheme	43032031	39049789
6	Office Contingency			4	Licence fee	25504758	29976971
	i) Expenditure during 2014-15	627531301		5	Interest	175251740	280176542
	ii) Adjustment of Advances	20827188	648358489				
7	Repair & Maintenance of Machinery & Equipment	50040193	26987234	6	Miscellaneous Receipts	207130465	304465872
8	Maintenance of Buildings			7	Revolving Fund transferred as 'Receipt' as per SFC approval	5189000	7910000
	i) Expenditure during 2014-15	182490458					
	ii) Adjustment of Advances	182490458	152280924	8	Establishment Receipt (scheme Cell)	44364731	28141713
9	New Pension Scheme	229185966					
	i) Less Receipts	104352134	124833832				79560028

10	Leave salary & Pension Contribution	1692353					
	i) Less Receipt	86323	1606030	1101846			
11	Deposit Linked Insurance Scheme		480000	391548			
12	Establishment Charges (scheme Cell)		40387370	20222256			
	PLAN						
13	Pay & Allowances		621348709	497307113			
14	Travelling Allowances		29477521	26970452			
15	Spares & Accessories		214139945	158813716			
16	Oversight Committee						
	Pay & Allowances		217900000	191000000			
17	HOSTELS				HOSTELS		
1	Miscellaneous Expenditure				1	Miscellaneous Receipts	810656
2	Deposited in AIIMS Main account	1374185	788004		2	Interest	46525 174932
18	DEPARTMENT OF GERIATRIC MEDICINE				DEPARTMENT OF GERIATRIC MEDICINE		
	(i) Salary		2910000		(i) Grant in aid		
	(ii) Research Activities	2575000			(ii) Interest	921251	1170525
	(iii) Material & Supply (Non-Plan)	403304	2469845				
	(iv) Bank Charges	102	402				
	(v) Training		242355				
19	EXCESS OF INCOME OVER EXPENDITURE				EXCESS OF EXPENDITURE OVER INCOME		
1	AIIMS (Main)	518600998	192385278		1	AIIMS (Main)	
2	Hostel				2	Department of Geriatric Medicine	2057155 4452077
3	Department of Geriatric Medicine				3	Hostel	517004 613072
	Sub-Total (A)	9045483401	7766295226			9045483401	7766295226

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
DR. RAJENDRA PRASAD CENTRE FOR OPHTHALMIC SCIENCES (B)
INCOME AND EXPENDITURE ACCOUNTS FOR THE YEAR 2014-2015**

EXPENDITURE				INCOME			
Particulars		2014-15	2013-14	Particulars		2014-15	2013-14
1	(i) Pay & Allowances (Non-Plan)	521023438	498720337	1	(i) Salary (Non-Plan)	526600000	659600000
	(ii) Pay & Allowances (Plan)	68000000	56100000		(ii) GIA General (Non-Plan)	180800000	
	(iii) Maintenance of M&E (AMC/CMC) 60790598		62154000		(iii) Salary (Plan)	68000000	56100000
	(iv) Minor Works (RG) 41157875	101948473			(iv) Minor Works (RG) 60790598		62154000
2	Daily Wages		..		(iv) GIA General (Non-Plan) 41157875	101948473	
3	Travelling Expenses	4935251	7362686	2	Hospital Receipts including kits	179983795	167843038
4	(i) Material & Supply (Reg. Payment) 289319891			3	Interest on Recoverable Adv.	162000	280295
	ii) Material received during 14-15 against earlier advance 8782373	298102264	290014447	4	Misc. Receipts	1153294	558860
	iii) IDBI Debit/Credit Card, Commission & Service Charges 311168	311168		5	Interest on CLTD	10259246	15937525
5	Office Expenses	19592776	21220893				
6	Maintenance of Buildings	16102101	11292628				
7	Repair & Maintenance of Mach. & Equip.	2187103	7205436				
8	Administrative Charges	426832	376041	6	Administrative charges received through Projects	774729	1485022
9	New Pension Scheme Contribution 8751840	8751840	2417263				
10	Excess of Income over Expenditure	28300291	7095009				
	Total	1069681537	963958740		Total	1069681537	963958740

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
CARDIO-THORACIC & NEURO-SCIENCES CENTRE (C)
INCOME & EXPENDITURE ACCOUNTS FOR THE YEAR 2014-2015

EXPENDITURE				INCOME			
S.N	PARTICULAR	2014-15	2013-14	S.N	PARTICULAR	2014-15	2013-14
A	C.N. Centre			A	C.N. Centre		
1	Non-Plan			1	Grant-in-Aid		
a)	i Pay & Allowances	119725922		a)	Salary	375700000	120825000
	ii Wages	6607717	1203866944				
b)	Travelling Exp.		3398491	b)	Revenue General	34805882	74650045
c)	Material & Supply	338277363	337917363				
	Adj:-NACO Exp.13-14 (-)	360000		c)	Non-Plan		
d)	Office Contingency		9728256	i)	Salary	1203400000	
e)	Repair & Maintenance of Mach. & Equip. (N.P.)		3210104	ii)	General	330600000	1534000000
f)	Maintenance of Building		41251891	2	Hosp. Receipt	48576398	49912008
g)	Material & Suuply (ORBO)		39920	3	Misc. Receipt	9037577	10446452
2	Revenue General			4	Rent Charges/Lic. Fee	1174005	1302787
a)	Salary (Plan)	375637573	119824353	5	Refund & Recoveries	2829048	2460714
b)	Hiring of Man Power	29765831	15586439	6	Interest on TDR	14141283	32262983
c)	Spare & Accessories NSC	0	48914550	7	Levy Charges	0	95380
d)	NSC Poor Patients fund		1263904	8	MRI Charges	0	342000
3	NPS Contribution	30053247	25762967				
B	C.T. Patient A/c			B	C.T. Patient A/c		
1	Material & Supply	256171137	241356664	1	Patient Receipts including	269782008	213857426
2	Transfer to AIIMS CNC A/c	0	22500000	(i)	Grant from AIIMS CNC A/c	25000000	
3	Poor patient Treatment exp. 14-15	19774859	27910387	(ii)	Received from Angio Pt A/c	20000000	
4	Bank Charges	13619	0	2	Interest	311669	5734588

C	Neuro Surgery Patient A/c			B	Neuro Surgery Patient A/c		
1	Material & Supply	82090469	63753674	1	Patient Receipts	73111786	69900602
2	Poor/BPL patient Treatment expenditure	1955574	1723477	2	Interest	615753	2678137
3	Bank Charges	5446	0				
D	Gamma Knife Patient A/c			B	Gamma Knife Patient A/c		
1	Material & Supply	988793	1870982	1	Patient Receipts	32588648	27324103
2	MRI Charges	0	1823000	2	Interest	9981684	9277201
E	Angio Patient A/c			B	Angio Patient A/c		
1	Material & Supply	193590583	183378962	1	Patient Receipts	207234838	225552308
2	Transfer to AIIMS CT pt A/c	20000000	0	2	Interest	8363964	7631713
3	Poor patient Treatment exp. 14-15	2964715	5495567				
4	Bank Charges	11738	0				
4	Excess of Income Over Expenditure			9	Excess of Expenditure Over Income		
i)	C.N. Centre	0	21542004	i)	C.N. Centre	15869331	0
ii)	C.T. Patient A/c	0	0	ii)	C.T. Patient A/c	5865938	72175037
iii)	Neuro Surgery Patients A/c	0	7101588	iii)	Neuro Surgery Patients A/c	10323950	0
iv)	Gamma Knife Patient A/c	41581539	32907322	iv)	Gamma Knife Patient A/c	0	0
v)	Angio Patient A/c	0	44309492	v)	Angio Patient A/c	968234	
		2655281996	2349928484			2655281996	2349928484

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
DR. BHIM RAO AMBEDKAR INSTITUTE ROTARY CANCER HOSPITAL (D)
INCOME AND EXPENDITURE FOR THE YEAR 2013-14**

EXPENDITURE			INCOME				
S.N.	PARTICULARS	2014-15	2013-14	S.N.	PARTICULARS	2014-15	2013-14
1	Non-Plan			1	Non-Plan		
	Pay & Allowances	465019294	376398299	(i)	Grant in Aid Salary	461000000	374100000
	TA/DA	7129270	9261643	(ii)	Grant in Aid General	300000000	260000000
	Contingency Bills	2651358	2958449	(iii)	Revenue Rec. from AIIMS	-	-
2	Maintenance of Building	12599530	10779144	2	Revenue General (Plan)	83550000	43040180
3	Material & Supply	264143365	232803173	3	ICMR	-	562000
4	Maintenance of M & E	9112098	11869658	4	Interest Receipts	2947564	10147944
5	Hiring of Manpower	33174902	26869292	5	Misc. Hospital Receipts	23847980	19905039
6	Sanitation	13749230	12087319				
8	Salary (Plan)	15954188	14738000				
9	Revenue General (Plan)	9106945	-				
10	Excess of Income over expenditure		-	6	Excess of Expenditure over Income	12096501	5333112
	TOTAL	883442045	713088275		TOTAL	883442045	713088275

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
JAI PRAKASH NARAYAN APEX TRAUMA CENTRE (E)
INCOME & EXPENDITURE ACCOUNT FOR THE YEAR 2014-15**

EXPENDITURE			INCOME				
S.N.	PARTICULARS	2014-15	2013-14	S.N.	PARTICULARS	2014-15	2013-14
1	Material & Supply	319618052	311479264	1	Grant-in-Aid (Revenue Gen)		
	Contingency Exp	22313639	25039848		Grant-in-aid (Salary)	693700000	591025000
2	Hiring of Manpower	80095826	69309948		Grant-in-aid (General)	567800000	500000000
3	Pay & Allowance	684965271	632959390	2	Hospital Receipts	6111715	10272742

4	Engg. Maintenances etc. (Water, Electricity, PNG Charges etc.)	132753739	114433004	3	Interest on TDR	10546579	22683561
5	Building Maintenance (RG)	8398013	0	4	Misc. Receipt	549460	3534171
6	Bank Charges	10058	0				
7	Excess of income over Expenditure	30553156	142	5	Excess of exp over income	0	25706122
	Total	1278707754	1153221596		TOTAL	1278707754	1153221596

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
CENTRE FOR DENTAL EDUCATION AND RESEARCH (F)
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2014-2015

EXPENDITURE			INCOME				
S.N.	PARTICULARS	2014-15	2013-14	S.N.	PARTICULARS	2014-15	2013-14
1	Pay & Allowances (Plan)	39363106	43637402	1	"Grant in Aid Salary"	39375000	43500000
2	Material & Supply (Plan)	50443154	37547714	2	Grant in Aid General	62000000	50012000
3	Maintenance of Building	13418543	9830734	3	Interest on STDR by Bank	3406427	2318559
5	Bank Charges	5317	6423	4	Miscellaneous Receipts	22800	127068
6	"Excess of income over exp "over expenditure"	2014212	3444190	5	Hospital Receipts	1578750	1472420
	Sub - Total (G)	106382977	97430047		TOTAL	106382977	97430047

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (G)
INCOME & EXPENDITURE FOR THE YEAR 2014-2015

EXPENDITURE			Income				
S.N.	Particulars	2014-15	2013-14	S.N.	Particulars	2014-15	2013-14
1	Salary	86834850	79726591	1	Grant in Aid - General (Plan)	59300000	128600000
2	Hiring of Manpower (Wages)	13373275	10340246	2	Grant in Aid- Salaries (Plan)	86900000	
3	Material & Supply	34427626	33597390	3	Hospital Receipt	445035	397810

Add: Adjustment of Imprest	20000		4	Miscellaneous Receipt	5290	1175
Add: Adjustment of Advance	29000	34476626				
4 Employer Contribution-NPS					1524394	
5 Excess of Income over exp.		11965574			3810364	
Total		146650325		Total	146650325	128998985

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
UNDCP ACCOUNT (H)
INCOME & EXPENDITURE FOR THE YEAR 2014-2015**

EXPENDITURE				Income			
S.N.	Particulars	2014-15	2013-14	S.N.	Particulars	2014-15	2013-14
1	Salary	0	333300	1	Grant In Aid	4360600	4620344
2	hospility	446445	14620	2	Mise Receipt	2653474	2510156
3	Accomodation		466170				
4	office Expenditure		5298250				
5	TA	0	187309				
6	Contigency expenditure	6139	3588792				
	Add: adjustment of advance for the year 2013-2014	168000	173				
	Add: adjustment of advance during the year 2014-2015	0	714302				
		4554139	443000 272560				
7	Bank Charges	485	32472				
8	Medicine						
9	Excess of Income over expenditure	2013005		3	Excess of Expenditure over Income		4220448
	TOTAL	7014074	11350948		TOTAL	7014074	11350948
	Grand Total (A to H)	15192644109	13184272301			15192644109	13184272301

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
BALANCE SHEET AS ON 31.3.2015

AIIMS(Main) (A)

(Amount in Rs.)

LIABILITIES		2014-15	2013-14	ASSETS		2014-15	2013-14
1	AIIMS(MAIN)			1	AIIMS(MAIN)		
	BALANCE				CASH IN HAND		
a)	Amount due but not paid (Scheme Cell)	290000	182500	a)	Imprest (AIIMS CASHIER)	773150	713150
				b)	Amount due but not paid (Scheme Cell)	290000	182500
2 A)	CAPITAL GRANTS FROM GOVT. OF INDIA			2	Cash at Banka		
i)	i) Upto 2013-14	15741017262		a)	(i) AIIMS (Main)	1654755804	
ii)	a) During 2014-15				(ii) Unspent Balance of Specific Grants remained with AIIMS (Main)	363262490	
	i) Creation of Capital Assets	1095776818				2018018294	1972182162
	ii) Unspent balance of 2014-15	120104716		b)	Scheme Cell	99992901	151959615
	ii) Grant in Aid General (Plan)	232600123		3	GPF BANK ACCOUNT		
	iii) Less on account of Machinery & Equipment condemned during 14-15	6922437		4	NPS Bank Account		
iv)	Less Books weeded out/ lost during 2014-15			5	Investment (Appendix-C)	13253424	11153424
v)	Less on account of vehicle condemned during 14-15	4573697	17178002785	6	Silver Jublee Fund	200000	200000
			15741017262				
B)	Oversight Committee						
	i) Grant upto 13-14	1835500000					
	ii) Unspent balance for previous year						

	iii) During 14-15	15000000	198550000	183550000	7	Sundry Debtors Scheme Cell		
3	Grant received from Ministry of Welfare for P.M.R. ADIP Scheme		1218	1218		(Appendix-B)	30724480	13265686
4	Centralised Accident and Trauma Services		29142	29142	8	Misc. Deposits	330986	330986
5	Diabetes Control		420000	420000	9	Recoverable Advances		
6	AIDS		2400000	2400000	i)	Car	161762	72850
7	NON-INSTITUTE SCHEMES				ii)	Motor Cycle-Scooter	377578	55299
	Unspent balance of grants received for specific purpose				iii)	Bicycle	46183	46183
	(APPENDIX-A)	430898917			iv)	Computer Advance	2116576	2261452
	i) Less amount transferred to I/E	3977361	426921556	430548287	v)	House Building Advance	7035042	8136220
8	Donated Vehicles				VI)	Festival	3594950	2566025
a)	Up to 2013-14	4470958						
b)	During 2014-15				10	Outside Recoveries		
c)	Vehicle condemned During 2014-15		4470958	4470958	11	Employee Insurance Scheme		1146013
9	Donated books				12	Machinery & Equipment		
a)	Upto 2013-14	202225			A	AIIMS (MAIN)		
b)	During 2014-15	1610	203835	202225	a)	Upto 2013-14	7868787963	
					b)	During 2014-15		
10	Donations (Appendix-C)				i)	Machinery & Equipment	440410770	
a)	up to 14-15		13637514	11537514	c)	Equipment received during 2014-15	357800149	
11	Miscellaneous Donations				d)	Machinery Condemned during 2014-15	6922437	
a)	Up to 2013-14	4907007			e)	Adjustment of custom duty during 2014-15	41861147	
b)	Receipts during 2014-15	49239622			f)	Computerisation		
c)	Expd. during 2014-15	49051570	5095059	4907007				

12	Employees Insurance Schemes		4162453		B	i) Add during 14-15 AIDS	107302512	8809240104 820600	7868787963 820600
13	Outside Recoveries		2370814	14147060	C	NACO Machinery&Equipment purchased		1932605	1932605
14	Deposit Work				13	Advance Payments			
(a)	Starford India		1589098	1589098	A	Material & Supply (Non-Plan)			
(b)	Rajgarhia Vishram Sadan		1483711	1483711	i)	Upto 2013-14	3927008		
(c)	Surekha Vishram Sadan		1985	1985	ii)	During 2014-15	2986811		
(d)	Shri Sai Vishram Sadan		500	500	iii)	Less Material & Supply received During 2014-15	2986811	3927008	3927008
(e)	MTNL for cable lying in A.V Nagar		112	112	B	For Foreign purchase of Machinery & Equipment (PLAN)			
(f)	Rajgarhia , Surekha & Shri Sai Vishram Sadan		663211	663211	i)	Upto 2013-14	302067162		
(g)	Power Grid Corpn. Of India for construction of Dharmshala at Trauma Centre		29000000	29000000	ii)	During 2014-15	434808527		
15	Security Deposits/ Earnest Money				iii)	Less equipment received During 2014-15	357800149	379075540	302067162
a)	Upto 2013-14	136537594			C	Advance payment to P&AO for purchase of Building Material			
b)	During 14-15	59668835			i)	Upto 2013-14	25869623		
c)	Refund against receipt upto 2013-14	47089709			ii)	Adjustment during 2014-15		25869623	25869623
d)	Refund against receipts of year 2014-15	14013000	135103720	136537594	D	Temporary Contingent Advance			
a)	Upto 2013-14	1484960			i)	Upto 2013-14	20867188		
b)	Receipts during 2014-15	59000	1543960	1484960	ii)	During 2014-15	47473500		
17	Pot Fund				iii)	Adjustment during 2014-15 of previous year	20827188	47513500	20867188
i)	Upto 2013-14	2543287			E	Private Firms for stores			
ii)	During 2014-15	152412			i)	Upto 2013-14	11509417		
iii)	expd. During 2014-15	6500	2689199	2543287	ii)	during 2014-15	28720406		
18	N.A.C.O.				iii)	Less adjustment during 2014-15	6822192	33407631	11509417
a)	Machinery & Equipment		1932605	1932605	F	Secretary, NDMC for security for electric connection			
					i)	Upto 2013-14	660950		

O	New Delhi Municipal Corporation for HT Transformer and laying of cable	7463500	7463500	
P	Central Public Works Department for Lift	14000000	14000000	
Q	Central Public Works Department for Surgical Ward		1711770	1711770
R	Caryair Equipment India Private limited for building construction		192602	192602
S	Indian Oil Corporation for Lubricant Diesel Oil i) Upto 14-15		282474	282474
T	New Delhi Municipal Corporation for Building Construction		18733600	18733600
U	Upgrading Architectural cell of Engineering Services Department at AIIMS		45132	45132
V	Chief Controller of Accounts (M/s Deepak Elect. Co.) for Electric works		190890	190890
W	Chief Controller of Accounts (M/s Sanico Ind.) for Electric works		98486	98486
X	Chief Controller of Accounts (M/s Surya Roshni) for Electric works		266165	266165
Y	M/s Blue Star Ltd.(for A/c works) for maintenance i) Upto 13-14 ii) During 14-15	2600576 6293392	8893968	2600576
Z	M/s Universal comfort (for A/c work) i) Upto 14-15 ii) Adjustment during 14-15	539474 539474	0	539474
AA	Universal comfort for water cooler (major work) i) During 14-15		1542893	

AB	M/s Voltas Ltd. for A/c work			
i)	Upto 14-15		461833	461833
AC	Chief Controller of Accounts for purchase of stores		3343957	3343957
AD	M/s Inderprastha for CNG Pipeline		10405000	10405000
AE	Directorate General Supply & Disposal M/s Rashmi Industry for A/c work		2976242	2976242
AF	M/s LG Elect. Split A/c for A/c & Electric Work			
i)	Upto 14-15	262260		
ii)	adjustment during 14-15	262260	0	262260
AG	Ex. Engg. SJH(CPWD) for sewage Treatment plant		11344542	11344542
AH	M/s HSCC Ltd. for construction		1000000	1000000
AI	Registrar, Guru Govind Singh Univ. for consultancy fee		18000	18000
AJ	M/s HSCC for preparation of Master Plan (major work)		105874500	105874500
AK	M/s HSCC for repair & renovation of RKAK OPD (major work)		136540015	136540015
AL	M/s HSCC for facilitation block (Major work)		14500000	14500000
AM	M/s HSCC construction of P.C. Teaching block (major work)		3000000	3000000
AN	M/s Alpine Industries for p/o AC units (Major work)		36918	36918
AO	M/s Kohli & Co. for A/c (major work)			
i)	During 14-15		235810	235810
AP	BRP (major work)			
i)	During 14-15		6033756	6033756

AQ	Ex Engineer (major work)			
i)	During 14-15		20900000	20900000
AR	Ex Engineer CPWD (major work)			
i)	During 14-15		10633620	10633620
AS	CPWD for boundary wall & nallah (major work)			
i)	During 14-15		9128220	
AT	M/s LG Elect. For p/o A/c (major work)			
i)	Upto 13-14	2385534		
ii)	During 14-15	2986144		
iii)	Adjstment during 14-15		5371678	2385534
AU	M/s LG Elect. For p/o A/c (minor work)			
i)	Upto 13-14	274618		
ii)	adjusment during 14-15	274618	0	274618
AV	Ex. Engg. SJH(CPWD) for sewage treatment plant (minor work)		12500000	12500000
AW	Ex. Engg. SJH(CPWD) for installation of additional lifts (major work)		4868896	4868896
AX	Ex. Engg. CPWD for installation of lift at ward block (major work)		1000000	1000000
AY	Ex. Engg. CPWD for sewage treatment plant (major work)		10900000	10900000
AZ	Ex. Engg. AIIMS CPWD for const. of Hostel (major work)		5000000	5000000
BA	M/s Hitachi Homes Solutions for p/o A/c (major work)			
i)	Upto 13-14	405442		
ii)	During 14-15			
iii)	Adjstment during 14-15		405442	405442
BB	M/s Gurdev Singh Sons for A/c (minor work)		302357	302357
BC	M/s Usha International Ltd. for A/c (minor work)			
i)	Upto 14-15		331120	331120

BD	HSCC for prep of master plan surgical block phase - II (oversight)			
i)	Upto 13-14	45868950		
ii)	During 14-15	166694714	212563664	45868950
BE	HSCC for PC & Teaching Block phase II (oversight)			
i)	Upto 13-14	215289908		
ii)	Add during 14-15			
iii)	Adjustment during 14-15		215289908	215289908
BF	HSCC for cont. of Hostel Bolck at AIIMS Campus (oversight)			
i)	Upto 13-14	318431512		
ii)	Add during 14-15			
iii)	Adjustment during 14-15		318431512	318431512
BG	HSCC for renovation of RKAK OPD (major work)			
			16899950	16899950
BH	HSCC Ex. Engineer, Delhi Water Service Haryana Govt. (major work)			
			50000000	50000000
BI	DMRC for tunnel connection between AIIMS & Trauma Centre (major work)			
			250000000	250000000
BJ	CPWD for Lift (major work)			
			10000000	10000000
BK	CPWD for covering of Nallah Phase-II (major work)			
i)	Upto 14-15		59396099	59396099
BL	HSCC for underground parking (major work)			
i)	Upto 13-14	3377000		
ii)	Add during 14-15	1877000		
iii)	Adjustment during 14-15		5254000	3377000
BM	HSCC for outreach OPD Badsha (Hr.) (major work)			
i)	Upto 14-15		105416000	105416000
BN	Hitachi Homes for p/o split A/c (minor work)			
i)	Upto 14-15		606704	606704

BO	HSCC for Dining Hall (Oversight)			
i)	Upto 13-14	132500000		
ii)	adjustment during 14-15	78255790	54244210	132500000
BP	HSCC for renovation of CNC - CCU ward (major work)			
i)	Upto 13-14	50100000		
ii)	During 14-15		50100000	50100000
BQ	HSCC for renovation of laundry & OPD (major work)		22400000	22400000
BR	HSCC for consultancy fee (major work)		24700000	24700000
BS	E.E. Delhi Water Services Division (major work)		55100000	55100000
BT	Sidwal Refregration for p/o A.C. (major work)			
i)	Upto 13-14	1416168		
ii)	During 14-15	305384		
iii)	Adjustment during 14-15	418780	1302772	1416168
BU	Secy. NDMC (major work)			
i)	Upto 14-15		4560000	4560000
BV	HSCC for renovation of CCU (major work)			
i)	During 14-15		10000000	10000000
BW	Inderprastha Gas Limited (minor work)		841610	841610
BX	HSCC for Trauma Centre (major work)			
i)	up-to 13-14	56500000		
ii)	adjustment during 14-15	56500000	0	56500000
BY	HSCC for const. for resident (major work)			
i)	During 14-15		100000000	100000000
BZ	M/s Universal comfort (for A/c work) major work			
i)	Upto 13-14	3555107		
ii)	During 14-15	2845290		

iii)	adjustment during 14-15	2643020	3757377	3555107
CA	HSCC for const. private ward (major work) During 14-15		92000000	
CB	HSCC for Trauma Centre (major work) During 14-15		100000000	
CC	HSCC for night shelter (major work) During 14-15		50000000	
14	Books & Publications			
i)	Books & periodicals (purchased)			
a)	Upto 2013-14	450743893		
b)	During 2014-15	103780948		
c)	Less books weeded out/ lost during 2014-15			
c)	Adjustment of advances made in previous year	61907694	616432535	450743893
ii)	Books donated			
a)	Upto 2013-14	202225		
b)	During 2014-15	1610	203835	202225
15	Building Construction AIIMS (Main)			
a)	Upto 2013-14	4704794646		
b)	during 2014-15			
i)	Major Works	207130599		
ii)	Minor Works	271243888		
c)	Adjustment of advances	539474		
d)	Adjustment of advances	262260		
e)	Adjustment of advances	274618		
f)	Adjustment of advances	418780		
g)	Adjustment of advances	56500000		
h)	Adjustment of advances	2643020		
i)	Adjustment of advances		5243807285	4704794646
16	Advance Payment			
i)	Indian Iron & Steel Company		572139	572139
ii)	Tata Iron & Steel Company		654154	654154

				iii)	Hindustan Steel Limited		520295	520295
				iv)	Indian Iron & Steel Company		594000	594000
				17	Land Account Upto 2014-15		112832263	112832263
				18	Vehicles			
				A	Vehicle (purchased for AIIMS)			
				a)	Upto 2013-14	32562910		
				b)	During 2014-15			
				i)	Transport Office	5399788		
				ii)	Hospital Store			
				c)	Less Vehicles condemned during 14-15	4573697	33389001	32562910
				B	Vehicles donated for AIIMS			
				a)	Upto 2013-14	4470958		
				b)	During 2014-15			
				c)	Vehicle condmned dg14-15		4470958	4470958
				19	Hospital receipts recoverable from outside patients			
				a)	Upto 2013-14	6077437		
				b)	During 2014-15	3905893		
				c)	Amount recovered during 2014-15	4238009	5745321	6077437
				20	Oversight Committee			
				a)	Major works			
				i)	upto 2013-14	863119887		
				ii)	during 14-15			
				iii)	Adjustment during 14-15	78255790		
				iv)	Adjustment during 14-15		941375677	863119887
				b)	Machinery & Equipment (store)			
				i)	upto 2013-14	105619275		
				ii)	during 14-15	22843608	128462883	105619275
					POOR PATIENT A/C			
1	AIIMS (Main)			1	AIIMS (Main)			
	a) Opening Balance				a) Cash/Bank		5758278	3087978

	i) Cash/Bank	3087978			b) FDR's		1530104	1202610
	ii) FDR's	1202610						
	b) Receipts							
	i) Grants	2720037						
	ii) Interest	454647						
	iii) Payments	79090						
	iv) less correction 13-14	97800						
	c) Closing Balance							
	i) Cash/Bank		5758278	3087978				
	ii) FDR's		1530104	1202610				
	PATIENT TREATMENT ACCOUNTS				PATIENT TREATMENT ACCOUNTS			
1	AIIMS				AIIMS		139743876	114796158
	a) Opening Balance	114796158						
	b) Receipts							
	(i) Grants	80695940						
	(ii) Interest	4782925						
	(iii) Payments	60525443						
	(iv) Bank Charges	5704						
	c) Closing Balance		139743876	114796158				
	HOSTELS				HOSTELS			
	Security Deposits				1	Cash in hand		
	i) Upto 2013-14	2967280			2	Cash at Bank	465320	1224480
	ii) receipts during 2014-15	1421000			3	FDR's	4925562	4539406
	iii) less refunds during 2014-15	1277000	3111280	2967280				
	DEPARTMENT OF GERIATRIC MEDICINE				DEPARTMENT OF GERIATRIC MEDICINE			
					(i) Machinery & Equipment			
					a) Upto 2013-14	323891		
					b) During 2014-15	194513	518404	323891
					(ii) Furniture			
					a) Upto 2013-14	817833		
					b) During 2014-15		817833	817833
					(iii) Advance to Engg.			
					a) Upto 2013-14	944000		
					b) During 2014-15		944000	944000
					Cash at bank		20505817	22757485
			0	0				

1	CUSTOMDUTYACCOUNT				CUSTOMDUTYACCOUNT			
	a) Opening Balance	179115763			Cash at bank	46583878	179115763	
	b) Receipts	110000000						
	c) Payments	133680823						
	d) Less correction	108851062						
	e) Closing Balance		46583878	179115763				
1	PD ACCOUNT				PDACCOUNT			
	a) Opening Balance	12319405			Cash at bank	12686711	12319405	
	b) Receipts	4500000						
	c) Payments	4132694						
	c) Closing Balance		12686711	12319405				
	NEW PENSION SCHEME				NEW PENSION SCHEME			
1	i) Cash Book Open. Balance	7389978			1	Opening Balance Investment	600000000	150000000
	ii) Investment	600000000	607389978	157613109	2	i) Investment during the year	627500000	
3	Receipt in NPS	193244701			3	ii) Less investment matured	600000000	27500000
	Funds transferred from NPS	162336563	30908138	12276869	3	Cash Book Closing Blance	10798116	7389978
	GENERAL PROVIDENT FUND					GENERAL PROVIDENT FUND		
1	Opening Balance		3912498639	3451662641	1	Opening Balance Investment	3795161183	3356881899
2	i) Subscription Received	881646867			2	i) Investment during the year	1887432648	
	ii) Less Withdrawal	796851129	84795738	117706547	2	ii) Less investment matured	1425402450	462030198
3	O/s Interest received for the year 2013-14		16428647	39099375	3	Interest recd on GPF subsription	16428647	
4	Interest received on Subscription for 2014-15		322362938	287601429	4	Add Cash Book Closing balance 2014-15	62465934	100908809
	EXCESS OF INCOME OVER EXPENDITURE							
1	AIIMS (Main)							
	(i) Upto 2013-14	770071808						
	(ii) Add during 14-15	518600998	1288672806	770071808				
2	HOSTEL							
	i) Upto 2013-14	2796606						
	ii) Less Excess of Expd over Income during 14-15	517004	2279602	2796606				
3	DEPARTMENT OF GERIATRIC MEDICINE							
	i) Upto 2013-14	24843209						
	ii) Less Excess of Expd over Income during 14-15	2057155	22786054	24843209				
	Sub-Total (A)		26318128658	23418950089			26318128658	23418950089

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
DR. RAJENDRA PRASAD CENTRE FOR OPHTHALMIC SCIENCES (B)
BALANCE SHEET AS ON 31ST MARCH 2014**

S.No. LIABILITIES		2014-15	2013-14	S.No. ASSETS		2014-15	2013-14
I	Capital Grant from Govt. of India						
i)	Upto2013-14	1995020285		1	Cash in Hand (Imprest)	20000	20000
ii)	Addition during the year 2014-15	449831632		2	Cash at Bank	222577695	107435696
iii)	Less: Furniture condemned during 14-15	0					
iv)	Less : M & E Condemned during 14-15	0					
v)	Less : Vehicles Condemned during 14-15	0	2444851917	3	RECOVERABELADVANCES		
				a)	Motor Car		
II	NPCB as per last year		25629000	i)	Upto 2013-14	15212	
III	Donated vehicles (upto 07-08)		896357	ii)	Add : Paid during the year 2014-15	0	
IV	Vehicles purchased under DBCS/NPCB (upto 07-08)		455574		Less :Recovered durng 14-15	10000	15212
				b)	SCOOTER		
				i)	Upto 13-14	0	
				ii)	Add: Paid during the year 2014-15	0	
				iii)	Less : Recovered durng the year 2014-15	0	0
V	NON RPC SCHEMES			C)	H.B.A.		
1	ABN AMRO Natra Raksha			i)	Upto 13-14	59444	
	Balance upto 2013-14	32091		ii)	Add: Paid during the year 2014-15	0	
	Add: Funds Received during 2014-15	0		iii)	Less : Recovered durng the year 2014-15	22560	36884
	Less : Exp during 2014-15	0	32091				59444
2	National Trachoma Survey Part- A & Part-B			e)	COMPUTERADVANCE		
	Balance upto 2013-14	5829580		i)	Upto 13-14	15500	
	Add: Funds Received during 2014-15	1636237		ii)	Add: Paid during the year 2014-15	90000	

	Less : Exp during 2014-15	5097611	2368206	5829580	iii)	Less : Recovered during the year 2014-15	0	105500	15500
3	Administrative Charges				f)	FESTIVAL ADVANCE			
	Balance upto 2013-14	1108981			i)	Upto 13-14	449420		
	Add: Funds Received during 2014-15	0			ii)	Add: Paid during the year 2014-15	769500		
	Less : Exp during 2014-15	0			iii)	Less : Recovered during the year 2014-15	745875	473045	449420
	Less : Amount transferred to Income & Expenditure during 2014-15	1108981	0	0					
4	Diabetic Retinopathy in Urban slum of Delhi (DRUSD)				4	Machinery & Equipment (PLAN)			
	Balance upto 2013-14	1527333			i)	Upto 13-14	1753103922		
	Add: Funds Received during 2014-15	0			ii)	Add During 14-15 (Indigeneous)	351398219		
	Less : Exp during 2014-15 (against advance payment in 13-14)	1167317	360016	1527333	iii)	Add Received during 14-15			
		4687826			iii)	Less : M & E condemned during 14-15	0	2109189967	1753103922
5	AMD View Study				5	Machinery & Equipment (Non-Plan)			
	Balance upto 2013-14	294646			i)	Upto 13-14	5872266		
	Add: Funds Received during 2014-15	0			ii)	During 14-15	0	5872266	5872266
	Less : Exp during 2014-15	0	294646	294646	6	Capital Assets (Building) RG			
6	GNEC (Guru Nanak Eye Centre)				i)	Upto 13-14	233443859		
	Balance upto 2013-14	0			ii)	During 14-15	0	233443859	233443859
	Add: Funds Received during 2014-15	0			7	NPCB (M & E)	7002852		7002852
	Less : Exp during 2014-15	0	0	0	8	ICMR (M & E)	605150		605150
7	SERB-DST				9	Vehicles			
	Balance upto 2013-14	0				Vehicles Up to 13-14	4246987		
	Add: Funds Received during 2014-15	1800000				Add: Vehicle purchased during 14-15	1468929		

	Less : Exp during 2014-15	1800000	0	0		Less : Vehicles Condemned during 2014-15	0	5715916	4246987
8	Catract Patient (IOL)					b) i) Donated Vehicles upto 11-12	1351931		
	Balance upto 2013-14	604804				ii) Vehicle purchased under NPCB upto 09-10	0	1351931	1351931
	Add: Funds Received during 2014-15	0			10 Furniture & Fixtures				
9	Vision Delhi - PEC				i) Upto 13-14	13828507			
	Balance upto 2013-14	1821735	339364	604804	ii) During 14-15	1666763			
	Add: Funds Received during 2014-15	7021327			iii) Less : Furniture condemned during 14-15	0	15495270	13828507	
	Less : Exp during 2014-15	5983425	2859637	1821735	11 Sundry Debtors	76253	76253	76253	
10	Comprehensive Primary eye Care Services (CPECS/DJJS)				12 Advances Payment made to foreign purchases of M & E				
	Balance upto 2013-14	627471			i) Upto 13-14	4687826			
	Add: Funds Received during 2014-15	500000			ii) During 14-15	5663039			
	Less : Exp during 2014-15	803638	323833	627471	iii) Less : M & E received during 14-15 against adv. 13-14	4687826	5663039	4687826	
11	CGD in Primary Angle Closure Glacoma				13 Material & Supply				
	Balance upto 2013-14	41445			i) Upto 13-14	18564472			
	Add: Funds Received during 2014-15	0			ii) Advances payment made to foreign purchase 14-15	5729436			
	Less : Exp during 2014-15	0	41445	41445	iii) Less : Material received during 2014-15	8782373	15511535	18564472	
12	CSIR				Machinery & Equipment (PLAN) Jhajjar				
	Balance upto 2013-14	279334			Upto 13-14	2950000			
	Add: Funds Received during 2014-15	1347867			Add During 14-15	0	2950000	2950000	
	Less : Exp during 2014-15	1420615	206586	279334					

13	ROP Services								
	Balance upto 2013-14	132159							
	Add: Funds Received during 2014-15	224000							
	Less : Exp during 2014-15	356159	0	132159					
14	DEGAS								
	Balance upto 2013-14	184074							
	Add: Funds Received during 2014-15	0							
	Less : Exp during 2014-15	0	184074	184074					
15	DME								
	Balance upto 2013-14	7762							
	Add: Funds Received during 2014-15	0							
	Less : Exp during 2014-15	0	7762	7762					
16	DNB Examination								
	Balance upto 2013-14	5000							
	Add: Funds Received during 2014-15	0							
	Less : Exp during 2014-15	0	5000	5000					
17	ROP Workshop								
	Balance upto 2013-14	0							
	Add: Funds Received during 2014-15	0							
	Less : Exp during 2014-15	0	0	0					
18	FIG								
	Balance upto 2013-14	674							
	Add: Funds Received during 2014-15	120929							
	Less : Exp during 2014-15	120929	674	674					
19	High Precision Bio Analitial (HP-BAF)								
	Balance upto 2013-14	218474							
	Add: Funds Received during 2014-15	85972							
	Less : Exp during 2014-15	188848	115598	218474					

20	ICMR								
	Balance upto 2013-14	3179017							
	Add: Funds Received during 2014-15	2027571							
	Less : Exp during 2014-15	3303013	1903575	3179017					
21	INDEGEN(LSTM)								
	Balance upto 2013-14	730							
	Add: Funds Received during 2014-15	0							
	Less : Exp during 2014-15	0	730	730					
22	LUX 201 Omnicare								
	Balance upto 2013-14	690509							
	Add: Funds Received during 2014-15	0							
	Less : Exp during 2014-15	51892	638617	690509					
23	MA Foundation								
	Balance upto 2013-14	54096							
	Add: Funds Received during 2014-15	300000							
	Less : Exp during 2014-15	279473	74623	54096					
24	M.K. Media Corneal Transplant (Min. of Finance)								
	Balance upto 2013-14	958771							
	Add: Funds Received during 2014-15	0							
	Less : Exp during 2014-15	933314	25457	958771					
25	NAB								
	Balance upto 2013-14	54132							
	Add: Funds Received during 2014-15	0							
	Less : Exp during 2014-15	0	54132	54132					

26	Novartis Shield study							
	Balance upto 2013-14	0						
	Add: Funds Received during 2014-15							
	Less : Exp during 2014-15		0	0				
27	NPCB DOS Training							
	Balance upto 2013-14	230931						
	Add: Funds Received during 2014-15	819069						
	Less : Exp during 2014-15	733010	316990	230931				
28	NPCB Eye Camp Godda Jharkhand							
	Balance upto 2013-14	0						
	Add: Funds Received during 2014-15	84828						
	Less : Exp during 2014-15	84828	0	0				
29	NPCB/DBCS							
	Balance upto 2013-14	37500						
	Add: Funds Received during 2014-15	647250						
	Less : Exp during 2014-15	678015	6735	37500				
30	NPCB-NSU							
	Balance upto 2013-14	163060						
	Add: Funds Received during 2014-15	0						
	Less : Exp during 2014-15	162290	770	163060				
31	NPCB SSU							
	Balance upto 2013-14	122072						
	Add: Funds Received during 2014-15	190428						
	Less : Exp during 2014-15	150000	162500	122072				

32	OEU							
	Balance upto 2013-14	3413						
	Add: Funds Received during 2014-15	0						
	Less : Exp during 2014-15	0	3413	3413				
33	ORBIS PECP							
	Balance upto 2013-14	52323						
	Add: Funds Received during 2014-15	0						
	Less : Exp during 2014-15	0	52323	52323				
34	Pharmacokinetic Quinacrine							
	Balance upto 2013-14	63						
	Add: Funds Received during 2014-15	0						
	Less : Exp during 2014-15	0	63	63				
35	Study Drug (DE-109)							
	Balance upto 2013-14	56565						
	Add: Funds Received during 2014-15	250000						
	Less : Exp during 2014-15	236259	70306	56565				
36	Posudurex PS/DDS Allergan International							
	Balance upto 2013-14	0						
	Add: Funds Received during 2014-15	0						
	Less : Exp during 2014-15	0	0	0				
37	OZURDEX STUDY							
	Balance upto 2013-14	46879						
	Add: Funds Received during 2014-15	157500						
	Less : Exp during 2014-15	201414	2965	46879				

38	MAYOPIASTUDY								
	Balance upto 2013-14	0							
	Add: Funds Received during 2014-15	0							
	Less : Exp during 2014-15	0	0	0					
39	SSMI-VFA								
	Balance upto 2013-14	357052							
	Add: Funds Received during 2014-15	1000000							
	Less : Exp during 2014-15	1065236	291816	357052					
40	Treatment Prevalance of dry eye								
	Balance upto 2013-14	105300							
	Add: Funds Received during 2014-15	0							
	Less : Exp during 2014-15	91332	13968	105300					
41	WHO Malaysia								
	Balance upto 2013-14	49282							
	Add: Funds Received during 2014-15	0							
	Less : Exp during 2014-15	0	49282	49282					
43	Workshop								
	Balance upto 2013-14	31600							
	Add: Funds Received during 2014-15	0							
	Less : Exp during 2014-15	0	31600	31600					
44	PHFI/QEDJT-EER								
	Balance upto 2013-14	202498							
	Add: Funds Received during 2014-15	50000							
	Less : Exp during 2014-15	252498	0	202498					

45	LUMINOUSSTUDY							
	Balance upto 2013-14	126730						
	Add: Funds Received during 2014-15	70915						
	Less : Exp during 2014-15	190802	6843	126730				
46	National ROP Summit							
	Balance upto 2013-14	193821						
	Add: Funds Received during 2014-15	0						
	Less : Exp during 2014-15	193821	0	193821				
47	Prevalence Study of Trachoma Project							
	Balance upto 2013-14	85						
	Add: Funds Received during 2014-15	0						
	Less : Exp during 2014-15	0	85	85				
VII	NIAF							
	Balance upto 2013-14	1314919						
	Add: Funds Received during 2014-15	100000						
	Less : Exp during 2014-15	40460	1374459	1314919				
VIII	NPCB							
	Balance upto 2013-14	827						
	Add: Funds Received during 2014-15	0						
	Less : Exp during 2014-15	0	827	827				
IX	Security deposits							
	Balance upto 2013-14	8695406						
	Add: Funds Received during 2014-15	3910900						
	Less : Exp during 2014-15	2258000	10348306	8695406				
X	A.I.I.M.S. Remittance							
	As per last year	215790						
	Rec. received during 14-15		215790	215790				

XI	Outside Recoveries							
	Upto 14-15		11288	11288				
XII	Excess of Income Over Expenditure							
i)	Upto 13-14	99116556						
ii)	Add amount transferred from liability towards Administrative charges during 2012-13 & 2013-14	4050284						
iii)	Add : During 2014-15	28300291	131467131	103166840				
			2626096374	2153729297			2626096374	2153729297

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
CARDIO-THORACIC & NEURO-SCIENCES CENTRE (C)
BALANCE SHEET AS ON 31st March 2015**

S. NO.	LIABILITIES		2014-15	2013-14	S. NO.	ASSETS		2014-15	2013-14
A	Cardio Thoracic & Neuro Sciences Centre				A	Cardio Thoracic & Neuro Sciences Centre			
1	Balance Amount due but not paid Cashier		0	0	1	Cash in Hand Imprest (CNC-Cashier)		61000	61000
a)	Pay & Allowances		0	0					
b)	Imprest Amount 2014-15		20000	20000					
2	Capital Grant from Govt. of India				2	Closing Balance			
i)	Upto 2013-14	4843131303			A)	Cash at Bank		59783863	86827399
ii)	During 2014-15				B)	TDR		0	100000000
a)	Capital Assets (New)	410988718			C)	Computer Advance		1515814	1567414
b)	RG (Minor work)	26227638			D)	Car Advance		381276	482868
c)	Spare & Accessories (CTC)	26702022			E)	Scooter Advance		564376	682122
d)	Spare & Accessories (NSC)	22264458			F)	Cycle Advance		0	0
iii)	Less Mach. Condem. (-)				G)	House Building Advance		3773240	4542350
iv)	Less Fur. Condem. (-)				H)	Festival Advance		1189705	892029
V)	Plan amount to be refund to AIIMS (+)	21160145	5350474284	4996080166					

3	Amount Trf. From IRCH		1478400	1478400				
4	Cost of the Vehicle Donated by Sai Bhakta Samaj		613384	613384				
5	Donations							
i)	Upto 2013-14	1588852						
ii)	Receipt During 2014-15	452700						
iii)	Less Exp. 2014-15 (-)	0	2041552	1588852				
6	Security Deposits							
i)	Upto 2013-14	42146629						
ii)	Receipt During 2014-15	6947000						
iii)	Less Refund 2014-15 (-)	3726935	45366694	42146629				
7	NACO Fund							
i)	Upto 2013-14	360000						
	Adj:-NACO Exp.12-13 (-)	360000	0	360000				
8	RTGSAMOUNT (Dr./Cr.Advice)							
i)	Upto 2013-14	0						
ii)	Receipt During 2014-15	32954726						
iii)	Less Exp. 2014-15 (-)	32241862	712864	0				
9	Neurology Patient A/c							
i)	Upto 2013-14	23093526						
ii)	Receipt During 2014-15	20333934						
iii)	Less Refund / Exp. 2014-15	9838704	33588756	23093526				
10	Thallium Test							
i)	Upto 2013-14	387400						
ii)	Receipt During 2014-15	3539250						
iii)	Less Exp. 2014-15 (-)	3892526	34124	387400				
3	Machinery & Equipment							
i)	Upto 2013-14					4061229082		
ii)	During 2014-15					164433300		
iii)	Spare & Accessories (CTC)					26702022		
IV)	Spare & Accessories (NSC)					22264458		
v)	Machinery & Equip. Recd. Agt, Payment (+)					199632981		
v)	Less : Machinery Condmned					0	4474261843	4061229082
4	Advance Payment for Foreign Purchase							
A)	Mach. & Equip.							
i)	Upto 2013-14					147954696		
ii)	During 2014-15					246292812		
iii)	Less Equip. Recd. 2014-15 (-)					199632981	194614527	147954696
5	Minor Work							
i)	Upto 2013-14					392625069		
ii)	During 2014-15					26227638	418852707	392625069
6	Advance against Works						174596762	174596762
7	Amount due from outside Patients (CGHS)							
i)	Upto 2013-14					3163838		

11	Heart Transplant Donation				ii)	During 2014-15 (+)	439997		
i)	Upto 2013-14	274919			iii)	Less Amount Recd. 14-15 (-)	36690	3567145	3163838
ii)	Receipt During 2014-15	0							
iii)	Less Exp. 2014-15 (-)	0	274919	274919	8	Vehicles			
12	Cardiac Test					Ambulance Cars			
i)	Upto 2013-14	6881765				Ambulance ORBO		1305522	1305522
ii)	Receipt During 2014-15	4933780			9	Furniture & Fixture			
iii)	Less Exp. 2014-15 (-)	645803	11169742	6881765	i)	Upto 2013-14	3103472		
13	Lab Test				ii)	During 2014-15	262606		
i)	Upto 2013-14	5883783			iii)	Furniture Condmn. (-)	0	3366078	3103472
ii)	Receipt During 2014-15	11230090			10	Mach. & Equipmt. Trf. From C T Patients A/c		49025000	49025000
iii)	Less Exp. 2014-15 (-)	10147122	6966751	5883783					
14	MRI								
i)	Upto 2013-14	0							
ii)	Receipt During 2014-15	2200400							
iii)	Less Exp. 2014-15 (-)	1459570	740830	0					
15	Outside Recoveries Institute Recoveries								
i)	Upto 2013-14	306955							
ii)	During 2014-15 (-)	3910	303045	306955					
16	CT Patient Mach. & Equip. Transfer Sai Bhakta Samaj		49025000	49025000					
B	C.T. Patient A/c				B	C.T. Patient A/c			
					1	Fixed Deposit 2014-15	0	0	
					2	Cash at Bank	23177532	29043470	
C	Neuro Surgery Patient A/c				C	Neuro Surgery Patient A/c			
					1	Fixed Deposit 2014-15			

				(i)	O.B.	15900000		
				(ii)	During the year (+)	15900000	31800000	15900000
D	Gamma Knife Patient Treatment A/c			2	Cash at Bank		2995284	29219234
				D	Gamma Knife Patient Treatment A/c			
				1	Fixed Deposit 2014-15		70000000	70000000
				2	Cash at Bank		116772660	75191121
E	Angio Patient A/c			E	Angio Patient A/c			
				1	Sundry Debtors		3245441	3245441
				2	Fixed Deposit			
					O.B.	59800000		
					Add. During the year	50000000	109800000	59800000
				3	Cash at Bank		25556493	76524727
F	Poor Patients Fund			F	Poor Patients Fund			
	Liabilities	210417	161133	i	Cash at Bank		210162	161133
				ii	Profit & Loss A/c		255	0
G	Excess of Income over Expenditure			G	Excess of Expenditure over Income			
1	C.N. Centre			1	C.N. Centre			
					Excess of Expenditure over Income 2013-14	100082156		
					During 2014-15 (+)	15869331	115951487	100082156
2	C.T. Patient A/c							
	Opening Balance of excess of expenditure over income up to 2013-14	29043470						
	Excess of expenditure over income 14-15 (-)	5865938	23177532					29043470
4	Neuro Surgery Patient A/c							
	Opening balance of excess of income over Expenditure							

	up to 2013-14	45119234						
	Excess of expenditure over income (-)	10323950	34795284	45119234				
5	Gamma Knife Patient Treatment							
	Opening Balance of Excess of Income over Expenditure upto 2013-14	145191121						
	Excess of Income over expenditure during the year (+)	41581539	186772660	145191121				
6	Angio Patient A/c							
	Opening Balance of Excess of Expenditure over Income upto 2013-14	139570168						
	Excess of expenditure over income (-)	968234	138601934	139570168				
	TOTAL		5886368172	5487225905		TOTAL	5886368172	5487225905

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
DR. BHIM RAO AMBEDKAR INSTITUTE ROTARY CANCER HOSPITAL (D)
BALANCE SHEET AS ON 31st MARCH 2015**

S.No.	LIABILITIES	2014-15	2013-14	S.No.	ASSETS	2014-15	2013-14
1	Capital Grant			1	Current Assetts		
	Upto 2013-14	1793378811			Cash at Bank	0	791001
	Add: During 2014-15 (Plan).	491120000		2	Computer Advance+ Car/Scooter Advance		
	Less M & E condemned during 2014-15	21339835			Upto 2013-14	347207	
	Less Furniture condemned during 2014-15	-			Add during 2014-15	210000	
	Less excess capitalise during the F.Y. 2013-14	5202642	2257956334		Less Recoveries during 2014-15	353916	347207
			1793378811				

2	R.T. Revolving Fund				3	House Building Advance Upto 2014-15		87750	87750	
	Upto 2013-14	751728				4	Festival Advance			
	Add. During 2014-15	363000					Upto 2013-14	205800		
Less: Payment During 2014-15	565840	548888	751728	Add during 2014-15	634500					
	Bank overdraft		0		5	Custom Duty & PDA (Advance Payments)				
3	Medical Oncology Revolving Fund					Upto 2013-14	18734808			
	Upto 2013-14	1375679				Add. During 2014-15	50191725			
	Add. During 2014-15	71960			Less Custom Duty Adjusted during 2014-15	3874918	65051615	18734808		
	Less: Payment During 2014-15	-	1447639	1375679	6	Machinery & Equipment (Advance Payments)				
						Advance Payment to foreign purchase for M & E.				
						Upto 2013-14	61936201			
4	EMD & Security Deposites				Add during 2014-15	352069290				
	Upto 2013-14	139020			Less Adjustment of Advances (LCs) during 2014-15	42737054	371268437	61936201		
	Add During 2014-15	135000			7	Security Deposited NDMC				
Less Payment during 2014-15	60000	214020	139020	Upto 2013-14			2626000	2626000		
				Fixed Assets						
	POOR PATIENT ACCOUNTS				8	Machinery & Equipment				
a)	Cash / Bank	3074065				Upto 2013-14	1324608291			
	Receipt					Add. During 2014-15	83848911			
	Grant	806800			Add. Adustment of Advances (LCs) During 2014-15	42737054				
	Interent	1973599			Add. Adjustment of CDA/PDA	3874918				
	Misc.	50			Less M&E condemned during 2014-15	21339835				

	Payment	5285919			Less excess capitalise during the F.Y. 2013-14	5202642	1428526697	1324608291
	Missc. Payment	254			9 Furniture & Fixtures			
	Closing Balance		568341	3074065	Upto 2013-14	10840372		
					Add During 2014-15	-		
	PATIENT TREATMENT ACCOUNTS				Less Furniture condemned during 2014-15	-	10840372	10840372
a)	Cash / Bank	61424492			10 Building			
	Grant	51849467			Upto 2013-14	294156972		
	Interent	37616			Minor Works			
	Misc.	146871			Upto 2013-14	44903796		44903796
	Payment	44019457					339060768	294156972
	Misc. Payment	36622			11 Vehicles			
	Cheque Returened	200000	69202367	61424492	Upto 2013-14	2699309		
					Add during 2014-15	0	2699309	2699309
	Cash at Bank (FDR)		6000000	6000000	12 Excess of Expenditure over Income			
					Upto 2013-14	33707731		
					Add : Excess of exp d uring the year	12096501	45804232	33707731
	HMC PF ACCOUNTS							
	Cash / Bank	561864			13 Poor Patient Accounts (Cash/ Bank)		568341	3074065
	Receipt							
	Grant	2008217			14 Patient Treatment Accounts			
	Cheque cancelled / Bank	11915			Cash / Bank		69202367	61424492
	Payment	499788			FDR		6000000	6000000
	Misc. Payment	873			15 HMC PF ACCOUNTS (Cash / Bank)		2081335	561864
	Closing Balance		2081335	561864				
	TOTAL		2344382014	1866705659	TOTAL		2344382014	1866705659

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
JAI PRAKASH NARAYAN APEX TRAUMA CENTRE (E)
BALANCE SHEET AS ON 31st MARCH 2015**

S. No.	LIABILITIES	2014-15	2013-14	S. No.	ASSETS	2014-15	2013-14
1	Capital Grants from Govt. of India			1	Current Assets		
	Upto the year 2013-14	2552681196			Cash in hand	0	6706
	Add During the year 2014-15	183798466	2736479662		Cash at Bank	94126364	46625167
2	Security/EMD deposit				M/s HSCC (Outstanding 12-13)	6500000	6500000
	Upto the year 2013-14	3340968			Security Deposit to NDMC	5979000	5979000
	Add : Receipt during the year 2014-15	6044000			Security Deposit with IGL	1304680	1304680
	Less: Refund during the year 2014-15	1645000	7739968		Advance payment to "TRIGEN" (Min. of Power as per MOU.)	1170000	1170000
3	Patient Account			2	Advances for foreign purchahse		
	Upto the year 2013-14	10380877			Upto the year 2013-14	64769656	
	Less Amt transfer to ATLS project	359564			Add: LC advance paid during the year 2014-15	84410332	
	Add: Receipts during the year 2014-15	4200555			Less: LC advance adjusted during the year 2014-15	64769656	84410332
	Less: Exp during the year 2014-15	3465932	10755936				64769656
4	ALTS Project			3	Custom Duty Advance		
	Amt transfer from Patient A/c	359564			Upto the year 2013-14	35781400	
	Add: Receipt during the year 2014-15	3035000			Add: Advance during the year 2014-15	26000000	
	Less: Exp during the year 2014-15	1704757	1689807		Less: Adjusted during the year 2014-15	7160485	54620915
5	AITSC Project			4	PDAAdvance		
	Receipts during the year 2014-15	7125000			Upto the year 2013-14	9302490	
	Less: Exp during the year 2014-15	4998140	2126860		Add: Advance during the year 2014-15	0	
					Less: Adjusted during the year 2014-15	244815	9057675
							9302490

6 Excess of Income over Expenditure	Upto the year 2013-14	71954884			5 Festival Advance	Upto the year 2013-14	110625		
	Add: During the year 2014-15	30553156	102508040	71954884		Upto the year 2013-14	110625		
					Add: Advance during the year 2014-15	121500			
					Less: Recovery during the year 2014-15	172875	59250	110625	
					6 Computer Advance				
					Upto the year 2013-14	0			
					Add: Advance during the year 2014-15	30000			
					Less: Recovery during the year 2014-15	11000	19000		
					7 Fixed Assets				
					Building		689076549	689076549	
					Land A/c Transferred (AIIMS)		54310794	54310794	
					Machinery & Equipment				
					Upto the year 2013-14	1714429956			
					Addition during the year 2014-15	64594824			
					Add: M&E received against Advance	64769656			
					Add : Custom Duty paid during the year 2014-15	7160485			
					Add : PDA during the year 2014-15	244815	1851199736	1714429956	
					Furniture & Fixture				
					Upto the year 2013-14	8990902			
					Addition During the year 2014-15	475076	9465978	8990902	
Total			2861300273	2638357925	Total		2861300273	2638357925	

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
CENTRE FOR DENTAL EDUCATION AND RESEARCH (F)
BALANCE SHEET AS ON 31st MARCH 2015**

S.No. LIABILITIES			2014-15	2013-14	S. NO. ASSETS			2014-15	2013-14
1	Capital Grant				1	Current Assets			
	Upto the year 2013-14	519796454				Cash in Hand	5000	5000	
	Add: Capital Grant received during the year 2014-15	20000000				Cash at Bank	25130322	0	
	Less: Value of old equipment given to supplier on buy back procurement basis	0	539796454	519796454		TDR Opening Balance	30000000		
						Less credited to bank during the year 2014-15	30000000	0	
30000000					30000000		0	30000000	
2	Security/EMD deposit				2	Advances			
	Upto the year 2013-14	5742411				Advance paid to HSCC	0	0	
	Add : Receipt during the year 2014-15	5837216				Advance paid to NDMC	2364500	2364500	
	Less: Refund during the year 2014-15	2416140	9163487	5742411		Security Deposit to NDMC	3000000	3000000	
						Advance paid to DGS&D	469471	469471	
			0	10464196	3	Fixed Assets			
3	Bank over draft					"Building			
						(i)Upto13-14 transferred 308762005 from AIIMS Main A/C			
						Added :-			
						(ii) Adjustment against advance paid to HSCC ltd. during 2014-15 (+) Nil	308762005	308762005	
4	Excess of Income over Expenditure					Machinery& Equipment			
	Upto the year 2013-14	17840712.5				Upto the year 2013-14	209242798		
	Add: During the year 2014-15	2014212	19854924	17840713		Addition during the year 2014-15	19840769	229083567	
							209242798		
							229083567	209242798	
	Total		568814865	553843774		Total	568814865	553843774	

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (G)
BALANCE SHEET OF NDDTC AS ON 31st MARCH 2015**

S.No. LIABILITIES		2014-15	2013-14	S.No.	ASSETS	2014-15	2013-14
1	Capital Fund upto 2013-14	191548470		1	Cash at Bank	21490377	10433679
2	Grant-In-Aid- Creation of Capital Assets	20124000	211672470				
3	Instt. Rec. Upto 2013-14	0	113215	2	OB-Machinery & Equipment	39738190	
	During 2014-15	0	0		Mach. & Equip purchase during the year	5981042	39738190
					Adv. For Mat. & Supply upto 2013-14	0	270000
					Advance for training Program during the year 2014-2015	3712000	
4	Security/EMD				Less Adjustment during the year	29000	3683000
	Opening Balance	285000	285000	3	Imprest during the year 2014-2015	40000	
	Security Deposit during the year	200000			Less Adjustment during the year 2014-2015	20000	20000
	Less Security Refunded during year	150000	335000				
5	Wrongly Rept. UNDCP 2013-14		632	4	OB-Books & Publication	30609935	30609935
					Books & Publication during the year	3395763	34005698
6	OB-Excess of income over Exp.	8305644		5	OB-Furniture & Fixture	7528373	7528373
	Excess of income over income during the year	11965574	20271218		Furniture Expenditure During the year	1253446	8781819
				6	OB-Building	102198975	102198975
					Building Expenditure during the year	3541118	105740093
				7	Vehicle upto 2013-14	9033101	9033101

					2014-15	3208507	12241608	
				8	Custom duty adv. 2013-2014		400000	400000
					Out side Rec. 2013-2014		40708	40708
	Total		232392535	200252961	Total		232392535	200252961

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
UNDCP ACCOUNT (H)
BALANCE SHEET AS ON 31ST MARCH, 2015**

S.No.		LIABILITIES		2014-15	2013-14	S.No.		ASSETS		2014-15	2013-14
1	Opening Balance			464680	464680	1	Advance for training				
	Excess of Income over Expenditure	2918773		0			i) Upto 13-14	1483000			1483000
	Add:- Excess of Expenditure over income during 2014-15	2013005		4931778	2918773		ii) Add : advance during 2014-2015	5650000			
							ii) Less: adjustment of advance for the year 2014-15	4380000			
							ii) Less: adjustment of advance during the year 2013-14	168000	2585000		
						2	Recoverable from NDDTC for the year 2013-2014		632		632
						3	Cash at bank		2810826		1899821
	Total			5396458	3383453		Total		5396458		3383453
	Grand Total (A to H)			40842879349	36322449063				40842879349		36322449063

Financial Advisor

Sr. Financial Advisor

Director

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
RESEARCH SECTION
STATEMENT SHOWING THE EXPENDITURE OF THE GRANT RECEIVED FOR THE VARIOUS RESEARCH PROJECTS
FOR THE YEAR 2014-2015**

No.	Code	Funding Agency	Opening Balance		Receipt	Total_Receipt	Expend	Estd	Expenditure	Adjust.		Balance	
			Cr.	Dr.						Cr.	Dr.	Cr.	Dr.
1		<i>Institute Research Grant</i>	3763955		50,000,000.00	53,763,955.00	30920512		30920512			22843443	
2	439	Abbot health care pvt ltd.	471630			471630			0			471630	
3	294	ABBOTT VASCULAR, USA	482902			482902			0			482902	
4	372	ACE PHARMACEUTICALS BV, NETHERLAND	15116			15116			0			15116	
5	373	Actelion Pharmaceuticals Ltd. Switzerland	0			0			0			0	
6	148	Aimil Pharmaceutical India Ltd.	-331			-331			0				331
7	317	AJINOMOTA CO. JAPAN	115846		179,102.00	294948	203085	17910	220995			73953	
8	396	Albert David Ltd	0			0			0			0	
9	509	American Academy of Paediatrics	269058			269058			0			269058	
10	370	Amgen Technolgoy Private Limited	1486697			1486697			0			1486697	
11	263	ANTISENSE PHARMA Gmbh, GERMANY	-347			-347			0				347
12	527	AO Spine International, USA	7479		205,950.00	213429	7455	20595	28050			185379	
13	16	Appothecaries PvtLtd	748030			748030	105135		105135			642895	
14	85	Atomic Energy Regulatory Board	409629			409629			0			409629	
15	304	Auxilium Technical & Management Services Pvt. Ltd.	400			400			0			400	
16	182	AVENTIS PHARMACEUTICALS, USA	14135			14135			0			14135	
17	286	Ministry of Health and Family Welfare& Ayush	2661750		22,489,741.00	25151491	12131644	971201	13102845			12048646	
18	270	B.A.R.C	477447			477447			0			477447	
19	179	Beijing Toshiba Pharmaceuticals Co. Ltd.	180235			180235			0			180235	
20	168	Bharat Biotech International Ltd	12241			12241			0			12241	
21	222	BHARAT SERUMS AND VACCINES LTD.	-10000			-10000			0				10000

22	449	bigtec private limited	238432			238432	233619		233619			4813
23	454	Bill & Melinda Gates Foundation, USA	8111			8111			0			8111
24	338	Biogen Idec Limited, UK	1178615.56		1,159,045.14	2337660.7	1442228	5802	1448030			889630.7
25	210	Biomerieux India (P)Ltd.	12011			12011			0			12011
26	259	BONE & JOINT DECADE INDIA	130			130			0			130
27	365	Brains Gate Ltd. ISRAEL	132			132			0			132
28	410	BRIDGES, USA	177804			177804	56999		56999			120805
29	364	BRISTOL MEYER SQUIBB INDIA PRIVATE LIMITED	151925.5		202,487.10	354412.6	58654	20249	78903			275509.6
30	435	BRISTOL MYER SQUIBB (BMS), USA	-15191			-15191			0			15191
31	350	BRITISH COUNCIL, UK	4566588		1,398,145.00	5964733	2868393	139814	3008207			2956526
32	408	BRNS,Mumbai	-830995		302,625.00	-528370	332074	15131	347205			875575
33	181	C.P.W.W. Jersulam	6534			6534			0			6534
34	2	C.S.I.R.	2352843		41,620,096.00	43972939	29047506	248357	29295863			14677076
35	322	Cadila Health care ltd.	95146		332,266.00	427412	299374	33226	332600			94812
36		Cadila Pharmaceutical Ltd.			328,803.00	328803	164257	32880	197137			131666
37	415	Canadian Institutes of Health Research, Canada	619962			619962	180384		180384			439578
38	412	CANNeCTIN, Canada	80186			80186			0			80186
39	197	CD PHARMA INDIA PRIVATE LIMITED	774739		2,715,740.00	3490479	1588374	241574	1829948			1660531
40	490	CDAC	459368		2,034,000.00	2493368	507084	203400	710484			1782884
41	327	Centocor Research & Development, USA	4797			4797			0			4797
42	126	Central Council for Research in Ayurveda & Sidha	210136			210136	186831		186831			23305
43	366	Central Council for Research in Homoeopathy (CCRH), Janak Puri, New Delhi	240227			240227	343179		343179			102952
44	309	Central Council for Research in Unani Medicine	1413860		170,000.00	1583860	859650	8500	868150			715710
45	51	Central Council for Research in Yoga And Naturopathy	-61182		1,058,280.00	997098	672040	105828	777868			219230
46	379	Central Scientific Instruments Organisation	135557			135557			0			135557

47	356	Centre For Chronic Disease Control	493508	432,887.00	926395	781794	43289	825083		101312	
48	472	Centre Franco-Indien Pour La Preomotion De La Recherche Advance (CEFIPRA), France	630479	1,091,769.00	1722248	753302	109176	862478		859770	
49	535	Curehealth Diagnostic Pvt. Ltd.		2,500,000.00	2500000		250000	250000		2250000	
50	190	Charak Pharma (P)Ltd.	1144		1144			0		1144	
51	310	CLINCYTE, USA	665		665			0		665	
52	443	Clinical Marketing Pvt Ltd	387888		387888	358732		358732		29156	
53	279	Clinigene International Pvt. Ltd	1144531		1144531			0		1144531	
54	307	CLINIRx RESEARCH PVT. LTD. GURGAON, HARYANA	136002	194,845.00	330847	216080	19483	235563		95284	
55	226	CODMAN & SHURTLEFF, INC., USA	42138		42138			0		42138	
56	358	Coloplast	-5775		-5775			0			5775
57	110	CONARD, USA	591		591			0		591	
58	22	Convatee Sayibb	2328		2328			0		2328	
59	349	CORVENTIS, USA	34152		34152	197834		197834			163682
60	361	Criterion	185362		185362	157842		157842		27520	
61	109	Cystic Fibrosis/World Wide, USA	14605		14605			0		14605	
62	5	D.B.T.	128434961	160,620,980.00	289055941	137405941	7582232	144988173		144067768	
63	280	D.R.D.O.	811375	2,349,600.00	3160975	1091966	117480	1209446		1951529	
64	524	Dabur Research Foundation	508578	1,159,804.00	1668382	456403	115980	572383		1095999	
65	196	DANIDA RESEARCH COUNCIL	19		19			0		19	
66	227	Defnece Intitute of Phy. & Allied Scienses,	305861		305861	304500		304500		1361	
67	167	Delhi State Control Society/AIDS	102855	499,880.00	602735	505538		505538		97197	
68	277	DELHI TAPEDIK UNMULAN SAMITI	10824		10824			0		10824	
69	375	Department of Health and Human Services Centers for disease control, USA	809974	18,572,904.00	19382878	34539453	1857291	36396744			17013866
70	169	Deptt of Information Technology	-7115		-7115			0			7115
71	492	Deptt of Pharmaceuticals	5070087		5070087	1243717		1243717		3826370	
72	16	DEPTT. OF ELECTRONICS	56370	1,167,000.00	1223370	131263	58350	189613		1033757	
73	282	DIGENE CORPORATION, USA	42184		42184			0		42184	

74	249	Directorate General of Health Services	-57267			-57267			0				57267
75	25	Directorate of Education (NSS)	22799	71,250.00	94049		3562	3562				90487	
76	184	Dr. Reddys Lab. Pvt. Ltd.	265163	598,357.00	863520	302146	59835	361981				501539	
77	411	DRDE(Gwallior)	855954		855954			0				855954	
78	3	DST	85295143	95,261,627.00	180556770	174320316	3765091	178085407				2471363	
79	262	Eli Lilly	-286109		-286109	60000		60000					346109
80	165	Emcure Pharmaceutical Ltd.	-6380		-6380			0					6380
81	392	EMMES Corporation, Maryland, USA	3297		3297			0				3297	
82	297	European Commission	10576928		10576928	4264728		4264728				6312200	
83	145	Federation of Obstetric & Gynaecological	-276		-276			0					276
84	393	Flamentera AG, Switzerland	48193		48193			0				48193	
85	320	Fogarty International Centre,NIH, USA	53614	223,622.00	277236	249067	22362	271429				5807	
86	423	Fondazione Angelo Bianchi Bonomi, Milan- Italy	497809		497809	390921		390921				106888	
87	36	Ford Foundation	458594		458594			0				458594	
88	281	FREEDOM TRIAL	86253		86253			0				86253	
89	42	Fulford India Ltd.	114200		114200	1797		1797				112403	
90	93	Glaxo India Ltd.	217377		217377			0				217377	
91	336	Glaxo Smith Kline	1074823	3,906,670.00	4981493	2995131	390667	3385798				1595695	
92	316	GlaxoSmith Kline Asia Private Ltd	167129	984,558.00	1151687	279250	98455	377705				773982	
93	339	Global Cancer Concern India	3647		3647			0				3647	
94	389	GW Pharma Ltd. U.K.	8866	67,500.00	76366	60535	6750	67285				9081	
95	519	Hamilton Health Sciences & McMaster University, Canada	-477323	155,370.00	- 321953		15537	15537					337490
96	431	Hamilton Health Sciences Corporation, Canada	1085489	702,141.00	1787630	559001	70170	629171				1158459	
97	176	Helpage India	-284978		-284978			0					284978
98	18	Himalaya Drug Co.	1366236		1366236			0				1366236	
99	186	Hindustan Latex Family Planning Promotion	-7020		-7020			0					7020
100	333	Hindustan Latex Limited	697717	480,000.00	1177717	899038	48000	947038				230679	
101	515	Horiba India Pvt. Ltd	589500		589500	513750		513750				75750	

102	75	I.C.C.S.R.	-74861		-74861			0			74861
103	400	I.C.G.E.&B	613494		613494			0		613494	
104	264	I.S.H.T.M	-491881	2,500,000.00	2008119	1585980	85000	1670980		337139	
105	401	IADVL	10000		10000			0		10000	
106	1	ICMR	79363623	248,855,009.00	328218632	221336265	10744413	232080678		96137954	
107	460	ICSSR	-79411		-79411			0			79411
108	512	Imperial Life Sciences(P) Ltd.	51971	531,000.00	582971	463319	53100	516419		66552	
109	47	INCLEN	-118368		-118368			0			118368
110	191	INCLEN & USAID	24		24			0		24	
111	157	INCTR USA	-99699		-99699			0			99699
112	382	India Medtronic Pvt. Ltd	184722	141,931.00	326653	196150	14103	210253		116400	
113	10	Indian Council of Agriculture Research.	287805	1,946,968.00	2234773	1631274	97348	1728622		506151	
114	202	Indian council of Philosophical Research	4920		4920			0		4920	
115	440	Indian Heart Rhythm Society	5810		5810	3250		3250		2560	
116	108	Indian Institute of Technology	-249293	528,200.00	278907	483105	52820	535925			257018
117	33	INDO-US	749033		749033			0		749033	
118	475	Indo-US Science & Technology Forum	1083610		1083610	6185		6185		1077425	
119	68	INSA	25331	268,333.00	293664	220169	13417	233586		60078	
120	257	Institute De Recherches Internationales Servier (IRIS), France	-2034		-2034			0			2034
121	49	Institute of Cancer Research UK co-ordination Committee	-7209		-7209			0			7209
122	381	Institute of Genomics & Integrative Biology	-11482	3,264,116.00	3252634	1359880	137574	1497454		1755180	
123	483	Intas BIOPHARMACEUTICALS LTD.	73440	35,800.00	109240	105223	3580	108803		437	
124	485	International Union Against Tuberculosis and Lung Diseases	6062	20,000.00	26062		1000	1000		25062	
125	19	International Atomic Energy Agency	135739	1,117,316.00	1253055	1109569	111730	1221299		31756	
126	289	International Paedtrics Nephrology Association	462959		462959			0		462959	
127	417	International Union Against Cancer (UICC)	95571		95571	298		298		95273	

128	516	Invictus Oncology	259292		1,110,560.00	1369852	1020210	111056	1131266			238586	
129	420	Ipca labortoris	862394		1,121,733.00	1984127	996005	96469	1092474			891653	
130	367	JIV DAYA FOUNDATION	314124.5		1,522,546.00	1836670.5	1342758	130439	1473197			363473.5	
131	278	JOHN HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH (JHBSPH)	2445971		1,974,078.00	4420049	3940677	148704	4089381			330668	
132	178	Johnson & Johnson	45306.31		148,750.00	194056.31		14875	14875			179181.31	
133	228	KHANDELWAL LABORATORIES LTD.	805			805			0			805	
134	207	KLPF,USA	16473			16473			0			16473	
135	285	KOBE, JAPAN	10221			10221			0			10221	
136	169	L.G. Chemicals India Pvt Ltd.	-668			-668			0				668
137	390	Lady Tata Memorial Trust	0			0			0			0	
138	250	Lajolla Pharmaceutical Company, California	487			487			0			487	
139	413	LG Life Sciences India Pvt. Ltd.	70267			70267			0			70267	
140	391	Liver Foundation	100563		168,000.00	268563	90747	8400	99147			169416	
141	315	London School of Hygiene & Tropical Medicine, UK	146225			146225			0			146225	
142	357	Lupin Limited	18386			18386			0			18386	
143	362	M/s ARCHIMEDES DEVELOPMENT LTD., UK	47204			47204			0			47204	
144	305	M/S ASPREVA PHARMACEUTICAL CORPORATION, CANADA	-41266			-41266			0				41266
145	489	M/s Gilead Sciences Inc. U.S.A.	77970		1,843,077.00	1921047	1124840	184307	1309147			611900	
146	311	M/S Markansas Research Division	-4745			-4745			0				4745
147	374	Macleods Pharmaceutical Ltd.	18			18			0			18	
148		M/s Merck Sharp & Dohme Corporation USA			341,955.00	341955	22763	34196	56959			284996	
149	119	Maharishi Ayurveda	40839			40839	47191		47191				6352
150	404	Max Neeman International	777445		135,829.00	913274		11401	11401			901873	
151	97	MBI Kits.	8867			8867			0			8867	
152	380	McMaster University, Canada	351161			351161	220320		220320			130841	
153	211	Media Lab Asia	-11301			-11301			0				11301
154	536	Medtronic India Pvt. Ltd			4,000.00	4000			0			4000	

155	414	Merck Pharmaceuticals Ltd.	4467			4467			0			4467	
156	352	MERCK SERONO INTERNATIONAL S.A., SWITZERLAND	-207315			-207315			0				207315
157	378	MERK & CO., INC. USA	762226		497,391.30	1259617.3	882706	49739	932445			327172.3	
158	498	Merz Pharmaceuticals GmbH, Germany	46964		187,799.00	234763	283275	18779	302054				67291
159	402	Ministry of Chemical and petrochemicals	0			0	14820		14820				14820
160	135	Ministry of Communication and Information& Technology	-66833		15,250,000.00	15183167	293317	762500	1055817			14127350	
161	94	Ministry of Defence (D.R.D.O)	65850			65850			0			65850	
162	448	Ministry of Earth Science	156548		29,925.00	186473		1496	1496			184977	
163	13	Ministry of Environment & Forest	299987		1,324,257.00	1624244	666207	66213	732420			891824	
164	199	Ministry of Health And Family Welfare(N.A.C.O)	852520		8,398,414.00	9250934	3221125	243562	3464687			5786247	
165	130	Ministry of Social Justice and Empowerment	77882			77882			0			77882	
166	26	Ministry of Welfare	2100			2100			0			2100	
167	395	Morphotek Inc. USA	884717.58			884717.58	785894		785894			98823.58	
168	319	MSD (India) Pvt. Ltd.	397037			397037	160574		160574			236463	
169	340	N.C.Pvt. Ltd	37117			37117			0			37117	
170	342	N.C.T.	33584			33584			0			33584	
171	343	NAIP	-59810			-59810			0				59810
172	90	NATCO Pharma India	110079			110079			0			110079	
173	213	National AIDS Control Organisation	-414926		753,639.00	338713	566480	0	566480				227767
174	469	National Commission for protection of child Rights	-336650		296,936.00	-39714	19950	14846	34796				74510
175	513	National Health and Medical Research Council , Australia	111386		512,028.00	623414	416867	51202	468069			155345	
176	503	National Information Centre	2822595			2822595	1668447		1668447			1154148	
177	57	NATIONAL INSTITUTE OF HEALTH, USA	9451215		13,039,095.00	22490310	10331784	1292912	11624696			10865614	
178	534	NATIONAL INSTITUTE OF Mental HEALTH, NIH USA			826,848.00	826848	461344	82684	544028			282820	
179	265	National Institute of Nutrition (NIN) Hyderabad	109			109			0			109	

180	403	National Institute of pharmaceutical Education & Research	12439		12439			0		12439	
181	386	National Knowledge Commission	331672		331672			0		331672	
182	292	National Perinatal Epidemiology Unit, University of Oxford, UK	3187432.55		3187432.55	2593397		2593397		594035.55	
183	45	National Thalassemia Welfare Society	-1781		-1781			0			1781
184	328	Neeman Medical International Asia Ltd.	237385		237385			0		237385	
185	441	Newcastle University, UK	27137		27137	27854			27854		717
186	61	NIE	63080953.89	44,364,731.39	107445685.3	40345569.85	41800	40387369.85		67058315.43	
187	99	Nova Nordisk India Pvt Ltd.	364804	1,200,852.00	1565656	1051267	120082	1171349		394307	
188	518	NovaBay Pharmaceuticals Inc., USA	41423.78	15,038.91	56462.69	606	1503	2109		54353.69	
189	532	Novartis Healt Care Pvt. Ltd.		145,125.00	145125		14513	14513		130612	
190	112	Novartis India Ltd.	1171055.22	800,521.90	1971577.12	805060	80051	885111		1086466.12	
191	565	NRDC			0	-34872		-34872		34872	
192	171	NSD (Security Deposit)	6963455	1,630,800.00	8594255	2970561		2970561		5623694	
193	276	Ovation Pharmaceuticals, USA	37222		37222			0		37222	
194	335	Ovrseas associates	190		190			0		190	
195	144	Oxford University, UK	674421.25	599,210.00	1273631.25	556174	33811	589985		683646.25	
196	332	OXiGENE, USA	215126.84		215126.84			0		215126.84	
197	272	Ozone pharmaceuticals ltd.	239		239			0		239	
198	79	Panacea biotech Ltd.	8084		8084			0		8084	
199	331	PAREXEL INTERNATIONAL LTD., U.K.	1998677.27		1998677.27	578923		578923		1419754.27	
200	494	Path/One world Health	1026576		1026576	774742		774742		251834	
201	268	Peregrine Pharmaceuticals, USA	-26577		-26577			0			26577
202	88	Pfizer Ltd.	94768.35		94768.35			0		94768.35	
203	555	PHFI		634,500.00	634500	348527	63450	411977		222523	
204	150	Pharmacia India Pvt. Ltd	837		837			0		837	
205	426	Pharmacosmos A/S, Denmark	-900		-900			0			900
206	377	PHARM-OLAM INTERNATIONAL, LTD.	16923		16923			0		16923	
207	451	Piramal Healthcare Ltd	210987		210987			0		210987	

208	360	Piramal Life Sciences	36211			36211			0			36211	
209	303	PPD Pharmaceutical Development India Pvt. Ltd.	-22668			-22668			0				22668
210	428	PRA India Pvt Ltd.	0			0			0			0	
211	368	QED PHARMACEUTICAL SERVICES PVT. LTD	577043			577043			0			577043	
212	388	Qiagen Inc.India	3709			3709			0			3709	
213	131	Quintiles Spectral India	2875871.86		294,605.10	3170476.96	353916	29460	383376			2787100.96	
214	523	Raptim Research Ltd.			79,400.00	79400		7940	7940			71460	
215	23	Rajiv Gandhi Foundation	-989			-989			0				989
216	53	Ranbaxy /Elililly & company pvt Ltd	1921204			1921204	13653		13653			1907551	
217	205	Reliance Clinical Research Services (P) Ltd.	381057.5			381057.5			0			381057.5	
218	302	Relisys Medical Devices Ltd.	-3433			-3433			0				3433
219	84	Revolving Funds for Drugs. / SNMC	195710			195710			0			195710	
220	429	ROCHE Products(India) Pvt Ltd.	1253476		271,930.00	1525406	741723	27193	768916			756490	
221	396	Russan Pharma Ltd Mumbai	1013750			1013750	580000		580000			433750	
222	399	Sanat Product Ltd	5758			5758		83754	83754				77996
223	400	Sanofi Pasteur India Pvt Ltd	123346			123346			0			123346	
224	401	SANOFI-AVENTIS	35743			35743			0			35743	
225	402	Sarabhai Chemicals	-4868			-4868			0				4868
226	403	SAVING NEWBORN LIVES, USA	-10898			-10898			0				10898
227	520	SERICARE	42453			42453	224644		224644				182191
228	137	Shanta Biotechics Pvt Ltd.	766398		837,540.00	1603938	1068717		1068717			535221	
229	404	Shire Human Genetic Therapies, Inc., USA	1189715.4			1189715.4	14601		14601			1175114.4	
230	500	Singapore Clinical Research Institute, Singapore	233915		481,980.00	715895		48198	48198			667697	
231	405	SIRO CLIN PHARMA PVT. LTD	-35171			-35171			0				35171
232	556	Siemens Ltd.			249,600.00	249600		24960	24960			224640	
233	406	Smith & Nephew Health care pvt lt	27065			27065	21622		21622			5443	

234	408	Society of American Gastrointestinal and Endoscopic Surgeons	7001		7001			0		7001	
235	409	Solumiks Herbaceuticals Limited	13		13			0		13	
236	410	Solvey Pharma Ltd.	13465		13465			0		13465	
237	411	SRB-Clinical Pharmacology	-3154100		-3154100			0			3154100
238	544	St. Jhon Medical College Banglore		270,000.00	270000	178776	27000	205776		64224	
239	412	St. Jude Medical Hong Kong	299334	27,363.00	326697	212480	2737	215217		111480	
240	413	ST. Jude Medical India Pvt Ltd	40500		40500			0		40500	
241	447	Stempeutics Research Pvt. Ltd.	550485	630,000.00	1180485	1086388	27000	1113388		67097	
242	414	Sterling Synergy System (P) Ltd.	58580		58580			0		58580	
243	415	Sun Pharmaceuticals	3384		3384			0		3384	
244	416	Synergy Network India Pvt Ltd,	551		551			0		551	
245	417	Texas A&M Research Foundation (TAMRF) USA	16237		16237			0		16237	
246	419	The Cancer Foundation	44245		44245			0		44245	
247	420	The Energey and Resources Institute	7775		7775			0		7775	
248	423	The George Institute for International Health, Australia	369205.32	1,201,077.00	1570282.32	408036	120108	528144		1042138.32	
249	424	The International Society for Paediatric Neurosurgery (ISPNE)	408		408			0		408	
250	426	The Medical Research Council, UK	3592		3592			0		3592	
251	427	THE MICRONUTRIENT INITIATIVE, ASIA	-4702		-4702			0			4702
252	429	The Service de Dermatologie, France	-8445		-8445			0			8445
253	200	The University of Albama, USA	3471555		3471555	6199779		6199779			2728224
254	450	The University of Edingburgh and NHS Lothian	224922	249,643.00	474565	431376	24963	456339		18226	
255	312	THRESHOLD PHARMACEUTICALS, USA	-3136		-3136			0			3136
256	444	Torrent Pharmaceutical Ltd.	2090352	2,600,000.00	4690352	33589	260000	293589		4396763	
257	288	Troikaa Pharmaceutical Ltd	26393		26393			0		26393	
258	9	U.G.C.	-1037810	10,213,545.00	9175735	11358352	500	11358852			2183117
259	121	UN International Drug and crime Control Programme	345762	1,491,490.00	1837252	955571	74575	1030146		807106	

260	4	UNICEF	-372030.12		2,807,228.00	2435197.88	3319033	255722	3574755				1139557.12
261	136	University of Bergan, Norway	663975			663975	7812		7812			656163	
262	347	UNIVERSITY OF CALGARY, CANADA	57187			57187			0			57187	
263	91	University of Maryland	90282			90282			0			90282	
264	363	University of Nottingham, UK	1974			1974			0			1974	
265	212	University of Warwick U.K	-1061			-1061			0				1061
266	353	University of Western Australia	0			0			0			0	
267	470	US Science & Technology Forum, USA	399323			399323			0			399323	
268	537	Vyome Bioscience pvt. Ltd.			520,245.00	520245	182356	52025	234381			285864	
269	208	Vulimini Ramalingaswami Foundation	-6508			-6508			0				6508
270	7	W.H.O.	17185307		10,299,348.00	27484655	10276387	165305	10441692			17042963	
271	170	Wockhardt, Mumbai	1176899			1176899			0			1176899	
272	554	Walter Bushnell			726,000.00	726000		72600	72600			653400	
273	266	Wyeth Pharmaceuticals Inc	133786			133786	672030		672030				538244
274	424	Zenotech	296962			296962	147333		147333			149629	
275	138	Zydas Healthcare Ltd	-398			-398			0				398
276	491	Zuventus			162,500.00	162500		16250	16250			146250	
		TOTAL	480,363,555.56		806,736,850.84	1,287,100,406.40	790,833,472.85	33,011,542.00	823,845,014.85	-	-	493,979,871.67	30724480.12

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APPENDIX-A1
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
EQUIPMENT EXPENSES (Scheme Cell)
2014-15

S.NO.	PROJECT NO.	NAME OF PROJECT INVESTIGATOR	MONTH	AMOUNT
1	N1429	DR. A.K.DINDA	Jun-14	40630
2	N1429	DR. A.K.DINDA	Aug-14	4485
3	N1473	DR. A.K.DINDA	Nov-14	2415760
4	N1473	DR. A.K.DINDA	Mar-15	96694
5	I789	DR. ALOK THAKAR	May-14	595
6	I827	DR. ARTI KAPIL	Nov-14	283500
7	N1374	DR. ARVIND BAGGA	Dec-14	688048
8	I779	DR. ASHISH SURI	Jun-14	8726
9	D317	DR. B.S.SHARMA	May-14	9294734
10	D317	DR. B.S.SHARMA	Jul-14	5256472
11	D317	DR. B.S.SHARMA	Sep-14	2923090
12	D317	DR. B.S.SHARMA	Oct-14	3230057
13	D317	DR. B.S.SHARMA	Nov-14	9465869
14	D317	DR. B.S.SHARMA	Jan-15	31121
15	D317	DR. B.S.SHARMA	Feb-15	2946476
16	D317	DR. B.S.SHARMA	Mar-15	2342607
17	D350	DR. D.K.MITRA	Mar-15	189000
18	D327	DR. D.S.ARYA	Sep-14	422100
19	D337	DR. GOVIND K MAKHARIA	Jan-15	551525
20	D357	DR. J.S.TYAGI	Mar-15	55650
21	N1325	DR. J.S.TYAGI	Feb-15	6616
22	N1325	DR. J.S.TYAGI	Mar-15	16363
23	N1361	Dr. JAGRITI BHATIA	Jun-14	800
24	N1339	DR. K.ANAND	Jul-14	864500
25	N968	DR. Kameshwar Prasad	Jul-14	9591
26	N1156	DR. Kameshwar Prasad	Jul-14	557460
27	N1481	DR. Kameshwar Prasad	Dec-14	1163218
28	N1481	DR. Kameshwar Prasad	Jan-15	194769
29	N1481	DR. Kameshwar Prasad	Feb-15	242820
30	N1481	DR. Kameshwar Prasad	Mar-15	2203765
31	I639	DR. LALIT DAR	Sep-14	117785
32	D340	DR. M.V.PADMA SRIVASTAVA	Nov-14	82200
33	D340	DR. M.V.PADMA SRIVASTAVA	Dec-14	85780
34	D269	DR. MADHURI BEHARI	Jul-14	36781

35	D311	DR. MADHURI BEHARI	Jul-14	2876522
36	D311	DR. MADHURI BEHARI	Jan-15	2097000
37	D331	DR. N.R.JAGANNATHAN	Jun-14	1450
38	D331	DR. N.R.JAGANNATHAN	Aug-14	17750
39	D331	DR. N.R.JAGANNATHAN	Mar-15	13043
40	D351	DR. N.R.JAGANNATHAN	Mar-15	9670232
41	N1274	DR. P. SARAT CHANDRA	May-14	6645
42	N1274	DR. P. SARAT CHANDRA	Jun-14	208237
43	N1274	DR. P. SARAT CHANDRA	Sep-14	18378
44	N1274	DR. P. SARAT CHANDRA	Feb-15	255061
45	N1274	DR. P. SARAT CHANDRA	Mar-15	842152
46	D352	Dr. PRANAY TANWAR	Nov-14	119981
47	D298	DR. PUNIT KAUR	Jun-14	2362
48	D298	DR. PUNIT KAUR	Nov-14	9161195
49	D298	DR. PUNIT KAUR	Dec-14	2123247
50	D298	DR. PUNIT KAUR	Jan-15	8611913
51	I825	DR. PUNIT KAUR	Jul-14	333162
52	I825	DR. PUNIT KAUR	Nov-14	332852
53	I777	DR. PUSHPA DHAR	Jun-14	195750
54	I798	DR. PUSHPA DHAR	Jan-15	650
55	I798	DR. PUSHPA DHAR	Mar-15	1390
56	N1501	DR. RAJIVE KUMAR	Feb-15	221318
57	N1501	DR. RAJIVE KUMAR	Mar-15	504000
58	I759	DR. RAKA JAIN	Jul-14	478175
59	I759	DR. RAKA JAIN	Feb-15	13236
60	N1235	DR. RAMA JAYASUNDAR	Oct-14	927387
61	N1235	DR. RAMA JAYASUNDAR	Mar-15	31411
62	I733	Dr. Ramanjit Sihota	Jul-14	694250
63	N1420	DR. RANDEEP GULERIA	Feb-15	8365
64	D299	DR. RANDEEP GULERIA	Sep-14	434750
65	D299	DR. RANDEEP GULERIA	Feb-15	27516
66	D299	DR. RANDEEP GULERIA	Mar-15	7692
67	N1489	Dr. Ritu Gupta	Jan-15	995066
68	N1363	DR. S.K.KABRA	Aug-14	7687
69	N1458	DR. S.K.MAULIK	Sep-14	609215
70	N1439	DR. S.S.CHAUHAN	Sep-14	302357
71	N1407	DR. SANJEEV SINHA	Jul-14	600325
72	I831	DR. SANJEEV SINHA	Jul-14	595327

73	I831	DR. SANJEEV SINHA	Feb-15	49177
74	I831	DR. SANJEEV SINHA	Mar-15	70313
75	N1372	DR. SAVITA YADAV	Jul-14	800
76	D022A	DR. SHASHI WADHWA	May-14	2804095
77	D022A	DR. SHASHI WADHWA	Feb-15	6830
78	D022A	DR. SHASHI WADHWA	Mar-15	52525
79	N1465	DR. SHYAM PRAKASH	Jun-14	149940
		GRAND TOTAL		92310316

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APPENDIX-B
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
LIST OF SUNDRY DEBTORS (SCHEME CELL)
2014-15

S. No.	Funding Agency	Amount (Rs.)
1	Aimil Pharmaceutical India Ltd.	331.00
2	Antisense Pharma Gmbh, GERMANY	347.00
3	Bharat Serums and Vaccines Ltd.	10,000.00
4	Bristol Myer Squibb (BMS), USA	15,191.00
5	BRNS, Mumbai	875,575.00
6	Central Council for Research in Homoeopathy (CCRH), Janak Puri, New Delhi	102,952.00
7	Coloplast	5,775.00
8	Corventis, USA	163,682.00
9	Department of Health and Human Services Centers for disease control, USA	17,013,866.00
10	Deptt of Information Technology	7,115.00
11	Directorate General of Health Services	57,267.00
12	Eli Lilly	346,109.00
13	Emcure Pharmaceutical Ltd.	6,380.00
14	Federation of Obstetric & Gynaecological	276.00
15	Hamilton Health Sciences & MCMaster University, Canada	337,490.00
16	Helpage India	284,978.00
17	Hindustan Latex Family Planning Promotion	7,020.00
18	I.C.C.S.R.	74,861.00
19	ICSSR	79,411.00
20	INCLIN	118,368.00
21	INCTR USA	99,699.00
22	Indian Institute of Technology	257,018.00
23	Institute De Recherches Internationales Servier (IRIS), France	2,034.00
24	Institute of Cancer Research UK co-ordination Committee	7,209.00
25	L.G. Chemicals India Pvt Ltd.	668.00
26	M/S Aspreva Pharmaceutical Corporation, Canada,	41,266.00
27	M/S Markansas Research Division	4,745.00
28	Maharishi Ayurveda	6,352.00
29	Media Lab Asia	11,301.00
30	Merck Serono International S. A., SWITZERLAND	207,315.00
31	Merz Pharmaceuticals GmbH, Germany	67,291.00
32	Ministry of Chemical and petrochemicals	14,820.00
33	NAIP	59,810.00
34	National AIDS Control Organisation	227,767.00

35	National Commission for protection of child Rights	74,510.00
36	National Thalassemia Welfare Society	1,781.00
37	Newcastle University, UK	717.00
38	Peregrine Pharmaceuticals, USA	26,577.00
39	Pharmacosmos A/S, Denmark	900.00
40	PPD Pharmaceutical Development India Pvt. Ltd.	22,668.00
41	Rajiv Gandhi Foundation	989.00
42	Relisys Medical Devices Ltd.	3,433.00
43	Sanat Product Ltd	77,996.00
44	Sarabhai Chemicals	4,868.00
45	Saving Newborn Lives, USA	10,898.00
46	SERICARE	182,191.00
47	SIRO CLIN PHARMA PVT. LTD	35,171.00
48	SRB-Clinical Pharamacology	3,154,100.00
49	THE MICRONUTRIENT INITIATIVE, ASIA	4,702.00
50	The Service de Dermatologie, France	8,445.00
51	The University of Albama, USA	2,728,224.00
52	Threshold Pharmaceuticals, USA	3,136.00
53	U.G.C.	2,183,117.00
54	UNICEF	1,139,557.12
55	University of Warwick U.K	1,061.00
56	Vulimini Ramalingaswami Foundation	6,508.00
57	Wyeth Pharmaceuticals Inc	538,244.00
58	Zydas Healthcare Ltd	398.00
	TOTAL	30,724,480.12

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APPENDIX-C
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
STATEMENT SHOWING THE DONATIONS & INVESTMENT AS ON 31-03-15

S.NO.	PARTICUALRS & MODE OF INVESTMENT	AMOUNT OF DONATION	AMOUNT OF INVESTMENT
1	AIIMS ROTARY CANCER HOSPITAL	700000	700000
2	MISC. DONATION - HEAMOTOLOGY UNDER Dr. A.K. SARAYA	8000	8000
3	ANNONYMOUS DONORS	70000	70000
4	DR. B.B. DIXIT LIB.	10000	13700
5	CHACHAMA DONORS	150000	199600
6	MJ. GENERAL S.L. BHATIA	10000	9800
7	MJ. GENERAL AMIR CHAND	150000 100000	149660 100000
8	SARUP CHAND HANS RAJ	20000	19500
9	RAJ KUMARI AMRIT KAUR	25000	25000
10	KATHERINE SORAL FREYMAN	5000	5000
11	DR. S.L. KALRA	6000	5800
12	R.L. RAJGARHIA	985000	985000
13	SMT. PRAKASH WATI DONATION	13800	13800
14	SMT. KRIPAL KAUR (UNIT TRUST)	6000	5908
15	LALA KHUSHI RAM	247753	247753
16	S.P. VIRMANI (FIXED DEPOSIT)	1500	1500
17	EAST INDIA COMMERCIAL PVT. LTD CALCUTTA (FIXED DEPOSIT) SRB	3200000	2800000
18	DR. KANTI KAPILA (UNIT TRUST)	10079	10002
19	DR. V. RAMALINGASWAMI (UNIT TRUST)	8000	7996
20	SR. S. SABHARWAL (UNIT TRUST)	10000	9951
21	DR. N.H. KASWANI (UNIT TRUST)	10000	9990
22	DR. V. HINGORANI	15000	15000
23	KUMUDINI KRISHNA MOORTHY	15000	15000
24	G.D. RADHAKRISHNA (SARWESHWARI MEMORIAL ORATION, UNIT TRUST)	20000	19987
25	P.L. TANDON (FIXED DEPOSIT)	15000	15000
26	XV INTERNATIONAL CONGRESS OF PEADIATRICS (UNIT TRUST)	40000	40000
27	RAM LOBHAYA DONATION (FIXED DEPOSIT)	15000	15000
28	SUBHASH MEMORIAL FOUNDATION (V.L. TELEKAR DONATION)	10101	10101
29	SMT. INDIRA SATYANAND	10000	10000

30	SH. K.V. SUBA RAO	10000	10000
31	NEWZELAND HIGH COMMISSION	10000	10000
32	AKHILESH MITTAL (SUMITH MOHAN SADAN DAYAL TRUST)	20000	20000
33	PREMALATA KAPOOR	10000	10000
34	DWARKA PRASAD TRUST	50000	50000
35	LATE. SH. D.R. BAHRI	15000	15000
36	SEWA RAM	15000	15000
37	FACULTY BENEVELENT FUND	60065	60065
38	V.RANGA MEMORIAL TRUST	50000	50000
39	SH. DORABJI TRUST	10000	10000
40	CORPUS FUND	30000	30000
41	AIIMSONIANS	10000	10000
42	SARLA ATAM PRAKASH	15000	15000
43	K.L. WIG RESEARCH FOUNDATION	100000	100000
44	V.K. MITTAL	130000	130000
45	SNEH LATA SONI	15000	15000
46	AIIMSONIAN OF AMERICA	129850 151630 126471	129850 151630 126471
47	SMT. LEELA WATI SALWAN	15000	15000
48	DR. D.K. GUPTA	100000	100000
49	J.R. CHAWLA	15000	15000
50	URMIL SHARMA IN R/O SHYAM SHARMA	15000	15000
51	SMT. SUSHILA WATI MALHOTRA	500000	500000
52	BASANTI KUMARI	100000	100000
53	ORTHOPAEDICS FUND	250000	250000
54	DR. S.B. ROY	125000	125000
55	MR. R.V. KANDHARI	100000	100000
56	DR. B.K. KAPOOR	125000	125000
57	SMT.SAVITRI UGGARSEAN	100000	100000
58	VIMAL LAUMAS	200000	200000
59	MRS. PRAMADA BAJAJ	200000	200000
60	DR. V. RAMALINGASWAMI	100000	100000
61	DR. N.C. NAYAK	100000	100000
62	DR. H.D. TANDON	100000	100000
63	PROF. N. GOPINATH (CTVS)	1200000	1200000
64	PROF. L.K. BHUTANI ORATION	500000	500000
65	BINEY ROHTAGI & SMT. SHAKUNTALA	36000	-

66	Dr. K.L. WIG (SBI)	36990	37000
67	ZENITH FINANCE & CO. (SBI)	17000	17000
68	KAMANI CHARITY TRUST (SBI)	15000	15000
69	SMT. KAUSHALYA THAPAR (UNTI TRUST)	12000	12017
70	SMT. BRIJ RANI SAWHENY (UNIT TRUST)	22501	22472
71	KAMLA B.K. ANAND	100000	100000
72	SH. G.D JHANGINI	25500	25602
73	DR. B.K. ANAND (UNIT TRUST)	105000	104995
74	R.S. NANDA	78274	78274
75	Prof. P.N. TONDON & A.K. BANERJEE	500000	500000
76	HARI PRAKASH ORATION	500000	500000
77	O.P.GHAI	1000000	1000000
78	SARINDER MAN SINGH	500000	500000
	TOTAL	13637514	13253424

FINANCIAL ADVISOR

APPENDIX-D
ALL INDIA INSTITUTE OF MEDICAL SCINECES
DETAILS OF MISC. DONATIONS AS ON 31.3.2015

S.NO.	DEPARTMENT	OP. BAL AS ON 1/4/2013	GRANT	TOTAL	EXPD.	CL. BAL AS AS ON 31-03-2014
1	R & AL	19475		19475		19475
2	PSYCHIATRY	28495		28495		28495
3	HEAMATOLOGY	12380		12380		12380
4	ORTHO	65586		65586		65586
5	IMMUNOLOGY	824		824		824
6	PAED SURGERY	32041		32041		32041
7	INSTT. MISC.	137338		137338		137338
8	DERMATOLOGY	15974		15974		15974
9	IRCH DR. V. KOCHUPILLAI	10460		10460		10460
10	LEPROSY PATIENT	115785		115785		115785
11	IRCH DR. A.K. BASU	17651		17651		17651
12	CN CENTRE	20418		20418		20418
13	BB DIXIT LIB	3324		3324		3324
14	EMP. WELFARE FUND	125139		125139		125139
15	PMR POOR FUND	34199		34199		34199
16	SURGERY	501		501		501
17	K.L. WIG CEMET	12021		12021		12021
18	N/ MEDICINE	19571		19571		19571
19	CEU	30000		30000		30000
20	DR. NK MEHRA	597235		597235		597235
21	I.C.G.E.B. DR. T.P SINGH	444630		444630		444630
22	DR. VEENA KALRA	74682		74682		74682
23	LEVER CLINIC - GASTRO	2865		2865		2865
24	DR. N.P. GUPTA -UROLOGY	4982		4982		4982
25	DR. N. KOCHUPILLAI- POOR PATIENT	120000		120000		120000
26	PEAD. GENETICS	2639291	49239622	51878913	49051570	2827343
27	MRS. USHA SHARMA	176600		176600		176600
28	MISC. RECEIPT	145540		145540		145540
	TOTAL	4907007	49239622	54146629	49051570	5095059

FINANCIAL ADVISOR

APPENDIX - E
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
DETAILS OF MISC. DEPOSITS AS ON 31.3.2015
2014-2015

S.NO.	NAME OF THE DEPARTMENT	AMOUNT
1	Controller of Printing & Stationary	16076
2	C.P.W.D. Shimla	70432
3	C.P.W.D.	7096
4	Delhi Municipal Corporation	33750
5	Indian Institute of Technology	4250
6	N.D.M.C.	173242
7	P. & T. Circle Division	12796
8	Indian Telephone Industries	13344
	TOTAL	330986

Financial Advisor

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 2015

1. We have audited the attached Balance Sheet of All India Institute of Medical Sciences (AIIMS), New Delhi, as at 31 March 2015, 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 **not** 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. Liability

A.1.1. AIIMS (Main) Rs. 263181.29 lakh

A.1.1.1. Customs Duty Account Rs. 465.84 lakh

During the audit of previous year accounts, it had been pointed out that there was an un-reconciled difference of Rs.1088.51 lakh between the closing balance of customs duty depicted in annual accounts and the bank statement. During the current year 2014-15 AIIMS had tried to settle the difference by reducing the liabilities by Rs.1088.51 lakh without carrying out any reconciliation to establish the reasons for such difference. Hence the adjustment entry of Rs.1088.51 lakh could not be vouchsafed in audit.

A.1.1.2. Revolving Fund Rs.204.32 lakh

The closing balance of the Revolving Fund in the Balance Sheet was Rs. 204.32 lakh whereas the records maintained for the Revolving Fund showed a balance of Rs. 96.40 lakh as on 31st March 2015. Similar differences were noted in the previous report and AIIMS had accepted to reconcile the difference but no reconciliation was done.

A.1.1.3. Deposit Works - Power Grid Corp of India Rs.290.00 lakh

The AIIMS had received Rs.790.00 lakh as deposit from M/s Power Grid Corporation for construction of Night Shelter. Out of this AIIMS had made an advance payment of Rs.500.00 lakh to HSCC. However, AIIMS had shown only Rs. 290.00 lakh as liability against Power Grid Corp in the Balance Sheet. Hence the liability was understated by Rs. 500.00 lakh.

A.2. Assets

A.2.1. AIIMS (Main) Rs. 263181.29 lakh

A.2.1.1. PD Account Rs. 126.86 lakh

The closing balance of PD account in annual account was Rs.126.86 lakh whereas in the bank statement it was Rs. 95.69 lakh leaving unreconciled difference of Rs. 31.17 lakh. Hence assets of the Institute were overstated by the same amount. Similar difference was noted in the previous report and AIIMS had assured to reconcile the difference but no reconciliation was done.

A.2.1.2. Advance Payment for foreign purchase of Machinery & Equipment (Plan) Rs.4348.08 lakh

As per records maintained by AIIMS Main, an advance payment of Rs. 5785.04 lakh was made for foreign purchase of machinery and equipment, however, in the annual accounts only a payment of Rs. 4348.08 lakh was shown in the assets side of Balance Sheet. Hence, the assets of the Institute were under stated by Rs.1436.96 lakh.

B. Receipts and Payments Account

B.1. Receipts

B.1.1 Centre for Dental Education & Research (CDER) Rs. 1559.59 lakh

B.1.1.1. AIIMS (Main) had made a payment of Rs. 113.41 lakh as Grants in aid Salary to Centre for Dental Education & Research (CDER), a unit of the Institute. However, CDER has depicted a receipt of Rs. 393.75 lakh as grants in its receipts and payments accounts. Hence the receipts of CDER were over stated by Rs. 280.34 lakh.

C. General

C.1. As per appendix C of the annual accounts there were investments worth Rs. 132.53 lakh against donations received from various sources. However, as per records donations worth only Rs. 44.56 lakh were available. Hence the investments worth Rs. 87.96 lakh could not be verified in audit. Similar discrepancy was noted in the previous report.

C.2. There were huge un-reconciled balances in the bank reconciliation statements of various units in the AIIMS as detailed below:

Particulars	Period (details in annexure)	Amount in Rs.
Cheque issued but not debited	April 2008 to March 2015	1518239137
Cheques deposited but not credited	May 1989 to March 2015	231025630
Cheque not issued but excess debited	Jan 1992 to March 2015	164722345
Excess credited by bank	April 1990 to March 2015	159276169

C.3. The following assets were appearing in the annual accounts of the AIIMS, However, the assets registers were not maintained in such a manner that the balances of assets appearing in the Balance Sheet could be verified from the asset registers.

(Rs. in lakh)		
Name of unit	Asset	Amount Rs.
AIIMS (Main)	Machinery Equipment	88092.40
	Building const.	52438.07
	Land	1128.32
Dr. R P Centre	Machinery Equipment Plan	21091.89
	Machinery Equipment Non Plan	58.72
	Building	2334.43
	Furniture & Fixtures	154.95
C N Centre	Machinery and Equipment	44742.61

	Furniture & Fixtures	33.66
	Machinery and equipment trf from CT Patients	490.25
BRAIRCH	Machinery and Equipment	14285.26
	Furniture & Fixtures	108.40
	Building	3390.61
JPN Apex Trauma centre	Machinery and equipment	18511.99
	Furniture & Fixtures	94.65
CDER	Building	3087.62
	Machinery and equipment	2290.83
NDDTC	Machinery and equipment	457.19

C.4. During the year C N Centre made an advance payment of Rs. 410.00 lakh to main AIIMS for customs duty. However, the same was not shown as advance payment in the Balance Sheet and instead booked directly to the expenditure head Machinery and Equipment account. Hence assets of the C N Centre were understated by Rs. 410.00 lakh.

C.5. Centre for Dental Education & Research (CDER) made a payment of Rs. 22.42 lakh on 31 March 2015, for opening a Letter of Credit for procurement of Machinery. However, the same was booked to the final head Machinery & Equipment instead of showing as advance in the accounts. Hence, assets of the AIIMS were understated by the same amount.

C.6. Institute has not made provisions for retirement benefits as required under Accounting Standard 15 issued by ICAI.

D. Grants-in-aid

During the year 2014-15 AIIMS received grants of Rs. 1664.52 crore {Plan: Rs. 621.00 crore and Non-Plan: Rs. 1001.00 crore, Oversight Committee (Plan): Rs. 25.89 crore and National Drug Dependence Treatment Centre (NDDTC): Rs. 16.63 Crore (Plan)}. It also had its own income of Rs. 106.37 crore. The total expenditure incurred was Rs. 1685.45 crore (Plan Capital: Rs. 283.44 crore, Plan Revenue: Rs. 168.92 crore, Oversight Committee: Rs. 31.89 crore and Non Plan: Rs. 1201.20 crore). Besides, the AIIMS received grants for various schemes amounting to Rs. 80.67 crore and incurred an expenditure of Rs. 82.38 crore.

E. Management letter: Deficiencies which have not been included in the Audit Report have been brought to the notice of the Director, AIIMS, 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 and Expenditure Account and Receipts and Payments 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 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 the All India Institute of Medical Sciences as at 31 March 2015; and
 - b. In so far as it relates to Income and Expenditure Account of the surplus for the year ended on that date.

For and on behalf of C&AG of India,

Place: New Delhi

Date: ?

**Director General of Audit
(Central Expenditure)**

Annexure

1. Adequacy of internal audit system

During 2014-15, out of total no of 144 units, only 19 units were planned and audited by the internal audit wing of the AIIMS. There was no internal audit manual.

2. Adequacy of Internal Control System

The internal control system of the AIIMS was inadequate in view of the above and observations mentioned in Report.

3. System of physical verification of fixed assets

The physical verification of fixed assets had not been conducted during 2014-15.

4. System of physical verification of inventory

The physical verification of stationery, books and publications and consumable items was conducted for the year 2014-15.

5. Regularity in payment of statutory dues

As per the accounts, no statutory dues over six months were outstanding.

Annex to D.O. Ir. No. AMG-II/SAR/7-12/AIIMS/2015-16

1. As per records maintained in J P N Apex Trauma Centre the following computer advances were lying outstanding as on 31st March 2015.

Amount in Rs.

Name	Opening balance of advance	Recovery during the year	Closing balance as on 31 March 2015.
Jeeto Samuel	25000	12000	13000
Geeta	25000	12000	13000
Jugal kishore	30000	12000	18000
Total	80000	36000	44000

However in the annual accounts the following balances were shown in the assets side of balance sheet:

Amount in Rs.

Name	Opening balance of advance	Recovery during the year	Closing balance as on 31 March 2015.
Computer advance	30000	11000	19000

Hence the closing balance of the computer advance was under stated in the in assets side of the balance sheet by Rs. 25000.

Replies to Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of AIIMS for the year ending 31 March 2015

A.1.1.1. Customs Duty Account Rs. 465.84 lakh

To enable timely payment of custom duty, a separate bank account under charge of Store Section (DO) is being operated in the Institute. AIIMS Main and Centres remit the money for payment of custom duty in the bank accounts maintained by Store Section (DO). Thus, Custom Duty A/c is shown at both sides of the Balance Sheet of AIIMS (Main) annual accounts, i.e. one for transactions of AIIMS (Main) and other for all transactions of 'Custom duty Bank Account' of Store.

In the Financial Year 2012-13, an amount of Rs.10.00 crores was refunded to 'AIIMS (Main)' Accounts from 'Custom Duty Accounts' due to surplus of funds. However, the same transaction was taken as Rs.10.00 lakh in accounts of 'Custom Duty Account' which resulted in difference of '9.90 crore in 'Custom Duty Accounts' of Store Section. The figure of Rs.10.00 crores was correctly depicted in the accounts of 'AIIMS (Main)' in the year 2012-13. However in the 'Custom Duty Accounts', the payment was shown short by Rs.9.90 crore in 'Receipt and Payment Accounts' as well as in Balance sheet for the year 2012-13.

Thus, out of Rs.10.88 crore, Rs. 9.90 crore have been identified and balance amount would be reconciled. Therefore, there is no serious issue which warrants any adverse comments. However it is assured that complete reconciliation would be shown to audit at the time of transaction audit. It is requested that this issue may please be re-considered for settlement based on our assurance to clear un-reconciliation amount of Rs.0.98 crore.

A.1.1.2 Revolving Fund: Rs. 204.32 lakhs

The difference of revolving fund is being reconciled and concerned record will be rectified accordingly.

A.1.1.3 Deposit Works-Power Grid Corp of India: Rs. 290.00 lakhs

The receipt of Rs. 5.00 crores from M/s Power Grid Corporation for construction of night shelter have been classified under Miscellaneous receipt inadvertently. The necessary correction will be carried out in accounts of next year.

A.2.1.1. PD Account Rs. 126.86 lakh

The differences of Pre-Deposit Accounts are being reconciled and observation raised by audit has been noted for future compliance.

A.2.1.2. Advance Payment for foreign purchase of Machinery & Equipment (Plan): Rs. 4348.08 lakhs

The difference of Rs.15.80 crore has been classified under Fixed Assets of AIIMS (Main) instead of advance. Hence assets have not been understated as the Assets as well as Advances are shown under the head 'Assets' of the Balance Sheet. However the observation has been noted for future compliance.

B.1.1.1. Centre for Dental Education & Research (CDER) Rs. 1559.59 lakhs

The AIIMS (Main) has paid a sum of Rs. 2,80,34,000 on account of Salary in respect of CDER employees directly. The same amount has been shown in receipt as well as in payment side of the R&P accounts of the Centre. The error of depiction of figure has been noted for future compliance.

C. General

C.1.

The difference in figures of donation is being reconciled. The matter is being taken up with bank also for reconciliation of the figures.

C.2

The efforts are being made to reconcile the outstanding balances.

C.3.

The Fixed Assets Register is being maintained by some of the Centres in Finance Division. However, the detailed Asset Register is available with the concerned store and Physical Verification of Assets are also being carried out every year as per provisions of the GFR.

C.4.

The advance payment of Rs. 4.10 crores made by CN Centre to Main Institute on account of custom duty has been added to the cost of Machinery and Equipment instead of advance inadvertently. However assets of the center have not been understated as the Machinery and Equipment as well as Advances are shown under the head 'Assets' of the Balance Sheet. However the observation has been noted for future compliance.

C.5.

The payment of Rs. 22,42,200 for opening a letter for procurement of machinery has been classified as assets of the centre instead of advance. However, the Assets have not been understated as the Machinery and Equipment as well as Advances are shown under the head 'Assets' of the Balance Sheet. However the observation has been noted for future compliance.

C.6.

The point has been noted for future compliance.

D. Grant-in-Aid

Factual facts, hence no comments.

Comments/replies to Annexure to Audit Report

S.No.	Audit Observation in Brief	Reply to Audit Observation
1.	Adequacy of internal audit system	The target of internal audit of 19 auditee units has been achieved by internal audit wing of the institute despite shortage of manpower.
2.	Adequacy of internal control system	No Comments
3.	System of physical verification of fixed assets	As assured by Institute to the audit during last certification audit, the physical verification of fixed assets has already been conducted during the current financial year 2015-16 for the period under audit.
4.	System of physical verification of inventory	No Comments
5.	Regularity in payment of statutory dues	No Comments



शरीरमाद्यं खलुधर्मसाधनम्