



Dr. Archana Singh

Professor

Address: Room no. 3022, Dept. of Biochemistry, III floor, Teaching Block, AIIMS, Ansari Nagar, Delhi

Official Phone: 011-26593467

Email ID:

archanasinghmamc@gmail.com, archanasinghaiims@gmail.com

archanasingh@aiims.edu

Academic Qualification:

S. No.	Degree	University	Year
1.	M.B.B.S.	Maulana Azad Medical College, Delhi University	2003
2.	M.D (Biochemistry)	Lady Hardinge Medical College, Delhi University	2008

Work experience

S. No.	Positions held	Name of the institute	From	To
1.	Senior Resident	Lady Hardinge medical College	27 th May 2008	31 st Dec 2009
2.	Assistant professor	University College of Medical Sciences	31 st Dec 2009	13 th June 2014
3.	Assistant professor	All India Institute of Medical Sciences	14 th June 2014	30 th June 2017
4.	Associate professor	All India Institute of Medical Sciences	1 st July 2017	30 th June 2020
5.	Additional Professor	All India Institute of Medical Sciences	1 st July 2020	30 th June 2024
6.	Professor	All India Institute of Medical Sciences	1 st July 2024	Till Present

Notable Awards and Society Memberships

- Life member of the Association of the Medical Biochemist of India (AMBI)
- Life member of the Association of the Clinical Biochemists of India (ACBI)
- Life member of the Indian Society for Atherosclerosis Research (ISAR)
- Life member of the Indian Immunology Society (IIS)
- **Executive Member** of Indian Immunology society National body (2016-2022)
- **Joint Secretary** of Indian Immunology Society National body (2022- 2024)

- Trained on medical laboratories quality management system and Internal audit as per IS/ISO 15189 from National Institute of training for standardization, Bureau of Indian Standards, Noida, Delhi, Also trained in ISO15189: 2012 and 2022.
- Worked on various aspects of complicated pregnancy (Pre-eclampsia and IUGR) and has won three awards namely **Dr. C Sita Devi Award for best paper twice** at **Association of Clinical biochemists of India** in **2010 and 2013** and **International Federation of Clinical Chemistry Roche Travel Scholarship** to attend and present poster at **Asian Pacific Federation of Clinical Biochemistry 2013**, Bali, Indonesia.
- **TB Association of India** support grant, Tuberculosis association of India, Delhi 2017, 2019.
- **First prize and third prize for AIIMS Excellence Research Award** in 2024 and 2020.
- My students Dr. Ambrish Tiwari and Dr. Shaikh Abdul Mubeen, Dr. Payal Goyal received the **ICMR - MD PG thesis support grant**
- **My student won various prizes and travel grant award for various conferences which are as follows:** Sudhasini Panda won **travel award for poster presentation** for Asian Pacific Federation of Clinical Biochemistry (2016) and **Newton-Bhabha Fellowship from DST-DBT-British council** (2019). Alisha Arora won **travel award for DST-SERB-ITS** (2019) and **IUIS** (2023) and **FIMSA** (2024). Deepak Vats won travel award for **FIMSA** (2024) and best oral presentation at **ACBICON2024**.

Departmental Duties:

- Clinical Chemistry Laboratory Incharge: Porphyria Laboratory and Renal Research Lab (Quality Manager)
- Current UG Teaching Coordinator
- Past PG teaching Coordinator

List of current ongoing Academic thesis as PI:

1. **PhD Thesis:** Influence of different grades of hyperglycemia on innate immune response in pathophysiology of active tuberculosis.
2. **PhD Thesis:** Study of immune response in TST and IGRA negative household contacts of adult pulmonary TB.
3. **MD Thesis:** Study of Immunophenotypes of monocyte subsets in TST and IGRA negative household contacts of adult pulmonary Tuberculosis (**ICMR PG thesis support grant**).
4. **MSc Thesis:** Exploring the role of CD206 receptor and its downstream effect in macrophages in tuberculosis patients with type 2 diabetes mellitus.
5. **PhD Thesis:** To characterize cell mediated immune response against unique T cell epitopes in spectrum of tuberculosis infection.
6. **UG mentorship programme (M.B.B.S.):** To study expression of FcRIIIa receptor and correlate with polymorphic variants in resister phenotype of tuberculosis compared with latent tuberculosis.
7. **ICMR STS (M.B.B.S. UG):** To study the serum levels of IgG subtypes and its correlation with the expression of FcGRIIIa receptor in household contacts of adult pulmonary tuberculosis.
8. **MD thesis:** To characterize T-cell immune response against MTB antigens PPE15 and PE_PGRS45 in spectrum of adult pulmonary tuberculosis infection. (**ICMR PG thesis support grant**)
9. **MSc thesis:** To characterize T cell immune response against *M.tb* secretory protein PE3-immunogenic peptides in spectrum of tuberculosis infection.

10. **UG mentorship programme (M.B.B.S.) 2024-2025:** To assess synergistic role of *Mycobacterium indicus pranii* and human beta defensin treatment of bacterial clearance in macrophage of patients having pulmonary tuberculosis with chronic hyperglycemia.

Research Focus of the lab:

Dr. Archana Singh's research primarily focuses on **tuberculosis immunology**, particularly understanding **host-pathogen interactions, immune correlates of protection**, and mechanisms underlying **susceptibility, latency, and disease progression in tuberculosis (TB)**. Her laboratory studies immune responses in active TB patients, TB-diabetes comorbidity, and household contacts exposed to tuberculosis. She has previously worked on understanding the pathophysiology of **pre-eclampsia and intra uterine growth restriction**.

Key areas of research include:

- Characterization of innate and adaptive immune responses in tuberculosis.
- Identification of **immune signatures in TB resisters** (individuals negative for both TST and IGRA despite exposure)
- Investigation of the impact of **hyperglycemia and diabetes mellitus on macrophage function and TB immunity**.
- Discovery of **immunodominant T-cell epitopes of *Mycobacterium tuberculosis*** for development of improved **vaccines and diagnostic tools**.
- Exploration of adjunct immunotherapeutic strategies such as **human beta defensins and *Mycobacterium indicus pranii*** in TB management.

The host's innate and adaptive immune cells work together to combat the infection and provide protection. We have found that TB Resisters (negative for both IGRA and TST) show distinct immune profiles, including classical monocytes with elevated IL-1 β and IL-10.

Her laboratory is also working on TB + DM comorbid condition which has shown altered immune-phenotypes of innate immune cells like macrophages and Neutrophils, leading to impaired immune responses and reduced *M.tb* clearance.

She is now expanding her focus on antigen identification and to find out new immunodominant T cell epitopes of *M.tb* which could be used to develop vaccines and diagnostic tools. Apart from this, currently two projects are being carried out on Characterisation of T cell immune response against *M.tb* antigen PPE15, PE_PGRS45 (ICMR MD thesis grant) and PE-3 immunogenic peptides (intramural) across LTBI, pulmonary TB and EPTB infection.

Her broader collaborative research also extends to **cancer immunology, Anemia, Pharmacology and clinical chemistry** involving many extramural and intramural research work as co-PI, co-guide of MD, MS, MCh,DM and Post-Doc students.

Research Projects:

- Study of immune response in TST (Tuberculin Skin Test) and IGRA (Interferon Gamma Release Assay) negative household contacts compared to latent TB infected household contacts of adult pulmonary tuberculosis patients (**Science and Engineering Research Board, 2022-2025**) (PI, PhD thesis)
- To Characterize T-cell Immune Response against MTB Antigens PPE15 and PE-PGRS45 in a spectrum of Pulmonary Tuberculosis Infections. (**ICMR Financial support for MD thesis-2024**) (M.D. thesis Supervisor)
- Study of Immunophenotypes of monocyte subsets in TST and IGRA negative household contacts of adult pulmonary Tuberculosis (**ICMR Financial support for MD thesis-2021, completed**) (M.D. thesis Supervisor)

- Study of immune response in TST (Tuberculin Skin Test) and IGRA (Interferon Gamma Release Assay) negative household contacts compared to latent TB infected household contacts of adult pulmonary tuberculosis patients (**(IMRG-2021-2023, completed)**)
- Study of effect of hyperglycemia on phenotypic and functional alteration in differentiated macrophages from THP1 cell line and monocytes from pulmonary tuberculosis patients (**(ICMR-2019 to 2022, completed) (PI, PhD thesis)**)
- Study of *Mycobacterium indicus pranii* and human beta defensin 2 as adjunct and chemoimmunotherapy against *Mycobacterium tuberculosis in vitro* (**(IMRG-2019-2021, completed) (PI, M.Sc. thesis)**)
- Study of hyperglycemia on macrophage effector function in pathophysiology of pulmonary tuberculosis (**(Science and Engineering Research Board-2018-2021, completed) (PI, PhD thesis)**)
- 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. (**(ICMR PG thesis grant, completed) (M.D. thesis Supervisor)**)
- Study of vitamin D receptor (VDR) and Cathelicidin expression and their correlation with Fok I polymorphism in tuberculosis (**(PI, Science and engineering Research board, DST YSS extramural grant-2015-2018, completed) (PI, M.Sc thesis)**)
- Serum hepcidin levels: Correlation with ferroportin expression and localization and thus iron export in pathophysiology of pulmonary tuberculosis (**(IMRG-2017-2018, completed) (PI, M.Sc. thesis)**)
- Expression of Vitamin D Binding Protein (VDBP) and plasma concentration of Vitamin D in pulmonary tuberculosis (**(STS ICMR-2016, completed) (Supervisor STS)**)
- **TB association of India** (short grant, received twice).

Research Team:



Left to right: Dhiraj Kumar, Geeta Rani, Dr. Payal Goyal, Deepak Vats, **Dr. Archana Singh,** Dr. Vitesh Sharma, Shraddha Kapoor

Lab members (Current)

1. Mr. Deepak Vats (PhD student)
2. Ms. Geeta Rani (PhD student)
3. Dr. Payal Goyal (MD Student)
4. Dr. Vitesh Sharma (MD Student)
5. Mr. Dhiraj Kumar (M.Sc student)
6. Ms. Shraddha Kapoor (ICMR-SRF)
7. Mr. Mukesh (Data Entry Operator)

Mr. Deepak Vats (PhD Student):

Deepak completed his B.Sc. (H) in Zoology from Panjab University in 2017. He did his M.Sc. in Zoology from CCS Haryana Agricultural University in 2019. He qualified CSIR-NET-JRF in December 2020. He qualified CSIR-NET-JRF in December 2020. He has submitted his PhD thesis focused on tuberculosis research, specialising in host-pathogen interactions, cell culture, immune cell phenotyping, multiplex ELISA and cytokine signalling. Throughout his PhD tenure, he gained experience in multi-parametric flow cytometry, immunoassays, qPCR, and bioinformatics-based network and pathway analysis. He has demonstrated a publication record, international conference presentations and substantial academic achievements.

Ms. Geeta Rani (PhD Student):

Geeta has completed her B.Sc. from SMM, Palwal (Maharashi Dayanand University, Rohtak) in 2019. She did her M.Sc. in Zoology from Banasthali Vidyapith, Banasthali (Rajasthan) 2021. She has qualified CSIR-NET-JRF in June 2022. She has joined the lab in May 2023. Currently, she is a fourth year PhD student under the guidance of Dr. Archana Singh. Her PhD thesis is on “To characterize cell mediated immune response against unique T cell epitopes in the spectrum of tuberculosis infection”.

Dr. Payal Goyal (MD Student):

Dr. Payal Goyal is a third year MD student at the Department of Biochemistry and she has completed her MBBS from Govt. Medical College, Kota (Rajasthan). She is currently Working on T cells for her MD thesis titled “To Characterize T-cell Immune Response against MTB Antigens PPE15 and PE-PGRS45 in a spectrum of Pulmonary Tuberculosis Infections.” She got ICMR PG thesis support grant in 2024 for her thesis.

Dr. Vitesh Sharma (MD Student):

Dr. Vitesh did his MBBS from Shri Lal Bahadur Shastri Government Medical College and hospital, Mandi (Himachal Pradesh). Currently he is the first year M.D. student under the guidance of Dr. Archana Singh.

Ms. Shraddha Kapoor:

She completed her B.Sc (hons) in Biomedical sciences from University of Delhi and M. Biotechnology from AIIMS, New Delhi. She currently holds ICMR Senior Research Fellowship entitled “Elucidating the adjunctive anti-tumorigenic potential of Long chain fatty acid derivatives and Niflumic acid in Multiple Myeloma cells.”

Mr. Dhiraj Kumar (M.Sc Student)

Dhiraj completed his B.Sc. in MLT from Indira Gandhi Institute of Medical Science, Patna in 2024. He is a final year M.Sc student and under the supervision of Dr. Archana Singh, he is working on her thesis

titled “Charaterization of T cell Immune response *M.tb* secretory protein PE3-immunogenic peptides in the spectrum of tuberculosis”

Alumini

1. Ambrish Tiwari (MD Biochemistry and MD Medicine)



Current Affiliation: Assistant Professor/DMO Department of General Medicine IRPGIMSR and associated NRCH New Delhi

2. Dr. Sudhasini Panda (PhD and MSc)



Current Affiliation: Postdoctoral Fellow, Scripps Research (Oct 2025-till date)
Postdoctoral Fellow, La Jolla Institute for Immunology, San Diego, California (Jan 2022-Aug 2025)

3. Dr. Diravyaseelan M (MD Biochemistry)



Current Affiliation: Assistant Professor, Department of Biochemistry, Amrita Vishwa Vidyapeetham, Faridabad, Haryana.

4. Dr. Faisal Shah (MSc PhD)



Current Affiliation:

Post-Doctoral Fellow (2026-ongoing), Institute Pasteur, Paris, France

PhD Scholar (2022-2026), Friedrich-Loeffler-Institute, University of Griefswald, Griefswald, Germany

5. **Mrs. Hema Yadav (MSc)**



Current Affiliation: PhD Scholar, Department of Biochemistry, AIIMS, Delhi

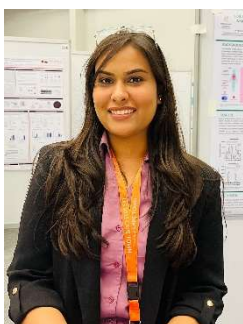
6. **Dr Shaikh Abdul Mubeen (MD Biochemistry)**



Current Affiliation: Assistant Professor, Department of Biochemistry at JIIU'S IIMSR, Badnapur, Jalna, Maharashtra.

He completed his M.D. in Biochemistry from AIIMS, New Delhi (2021-2024) under the supervision of Dr Archana Singh II and subsequently served as Senior Resident at the Department of Biochemistry, PGIMER Chandigarh. His Professional interests include metabolic disorders, clinical biochemistry. He has a strong track record in research, teaching, and laboratory management. Dr. Mubeen is an ICMR Research Grant Awardee (2022) with commendation awards at national and international conferences.

7. **Dr. Alisha Arora (MSc, PhD)**



Dr. Alisha Arora is an infectious disease immunologist who completed her doctoral research at the Department of Biochemistry, AIIMS New Delhi, with a focus on tuberculosis-diabetes comorbidity. Her thesis explored how hyperglycaemia disrupts innate immune functions in active pulmonary TB patients, drawing connections between cellular mechanisms and clinical disease. Since graduating, she has continued to apply her scientific training in public health programme as a Research Scientist at the New Delhi Tuberculosis Centre under the Ministry

of Health & Family Welfare, where she leads quality management and diagnostic scale-up efforts across TB centres in Delhi.

8. Ms. Vidhushi Sharma (MSc)

She has passed her M.Sc (Medical Biochemistry) from Department of Biochemistry, AIIMS, New Delhi. Her Master's thesis was focused on a predatory bacteria *Bdellovibrio bacteriovorus* as a live antibiotic against *Mycobacterium tuberculosis*. Currently, she is working as Assistant Controller of Patents and designs at Ministry of Commerce and Industry, Government of India.

9. Ms. Isha Rathore (MSc)

She has passed her M.Sc (Medical Biochemistry) from Department of Biochemistry, AIIMS, New Delhi. Her Master's thesis was focused on Exploring the role of CD206 receptor and its downstream effect in macrophages in tuberculosis patients with type 2 diabetes mellitus. Currently, she is pursuing her PhD at National Institute of Immunology, New Delhi.

Publications

*** Communicating Author**

1. **Archana Singh***, Deepika Sharma, Chitra Raghunandan, Jayashree Bhattacharjee. "Role of inflammatory cytokines and eNOS gene Polymorphism in pathophysiology of pre-eclampsia". American Journal of Reproductive Immunology 2010 ; 63 (3):244-25
2. Deepika Sharma, **Archana Singh**, Shubha S. Trivedi, Jayashree Bhattacharjee "Role of Endothelin and Inflammatory Cytokines in Pre-eclampsia – A Pilot North Indian Study". American Journal of Reproductive Immunology 2010; 65(4):428-32.
3. Tanuj Chawla, Deepika Sharma, **Archana Singh*** "Role of the renin angiotensin system in diabetic nephropathy". World J Diabetes. 2010; 1(5): 141-145.
4. Deepika Sharma, Parul goyal, **Archana Singh**, Shubha S. Trivedi, Jayashree Bhattacharjee. "Intergenotypic variation of oxidative stress marker of eNOS (Glu298Asp) gene polymorphism in preeclampsia". Anatolian Journal of Obstetrics & Gynecology 2010; 3(2) ISSN 1308-8254
5. Deepika Sharma, **Archana Singh**, Shubha S. Trivedi, Jayashree Bhattacharjee. Intergenotypic Variation of Nitric Oxide and Inflammatory Markers in Preeclampsia in North Indian Population. [Human Immunology](#). 2011; **72(5)**:436-439
6. Deepika Sharma, S. A. Hussain, N Akhter, **Archana Singh**, Shubha S. Trivedi, Jayashree Bhattacharjee. Endothelial nitric oxide synthase (eNOS) gene Glu298Asp polymorphism and expression in North Indian preeclamptic women. Pregnancy Hypertension: An International Journal of Women's Cardiovascular Health. 2013; 4(1): 65-69
7. Siddhamsetty AK, Verma SK, Kohli A, Verma A, Puri D, **Singh A**. Exploring time of death from potassium, sodium, chloride, glucose & calcium analysis of postmortem synovial fluid in semi-arid climate. Journal of forensic legal medicine. 2014; 28: 11-4.
8. Siddhamsetty AK, Verma SK, Kohli A, Puri D, **Singh A**. Estimation of time since death from electrolyte, glucose and calcium analysis of postmortem vitreous humour in semi-arid climate. Journal of Med Sci Law. 2014;54 (3):158-66.
9. **Singh A***, Raghunandan C, Bhattacharjee J. Endothelin: link between the primary placental causes and the secondary systemic endothelial dysfunction in pathophysiology of pre-eclampsia. Obstet Gynecol Int J. 2015;2(3):113-116. DOI: 10.15406/ogij.2015.02.00042
10. Shalini Singh, **Archana Singh***, Deepika Sharma, Abha Singh, M. K. Narula and Jayashree Bhattacharjee. Effect of L-Arginine on Nitric Oxide Levels in Intrauterine Growth Restriction

and its Correlation with Fetal Outcome. Indian Journal of Clinical Biochemistry. 2015; 30(3): 298-304.

11. Ashok kumar Ahirwar, Anju Jain, **Archana singh**, Binita Goswami, M K Bhatnagar and Jayashree bhattacharjee. The study of markers of endothelial dysfunction in metabolic syndrome. Horm mol Biol Clin Invest. 2015; 24(3):131-6.
12. Ahirwar AK, **Singh A**, Jain A, Patra SK, Goswami B, Bhatnagar MK, Bhatacharjee J. Raised TSH is associated with endothelial dysfunction in Metabolic Syndrome: A case control study. Romanian Journal of Internal Medicine. 2017, 55(4):212-221
13. AK Ahirwar, **A Singh**, A Jain, SK Patra, B Goswami, MK Bhatnagar and J Bhattacharjee. Role of Sub Clinical Hypothyroidism in Association with Adiponectin Levels Causing Insulin Resistance in Metabolic Syndrome: A Case Control Study. The Tokai journal of experimental and clinical medicine. 2017; 42 (2): 96-103.
14. Ahirwar AK, **Singh A**, Jain A, Kaim K, Bhardwaj S, Patra SK, Goswami B, Bhatnagar MK, Bhattacharjee J. Association of prothrombotic adipokine (plasminogen activator inhibitor-1) with TSH in metabolic syndrome: a case control study. Horm Mol Biol Clin Investig. 2017; 20,34(1).
15. Panda S, Tiwari A, Luthra K, Sharma SK, **Singh A***. Status of vitamin D and the associated host factors in pulmonary tuberculosis patients and their household contacts: A cross-sectional study. J Steroid Biochem Mol Biol. 2019; 193:105419. PMID: 31255688.
16. Sudhasini Panda, Ambrish Tiwari, Kalpana Luthra, S.K. Sharma, **Archana Singh***. Association of Fok1 VDR polymorphism with Vitamin D and its associated molecules in pulmonary tuberculosis patients and their household contacts. Scientific Reports. 2019; 24;9(1):15251. PMID: 31649297
17. Abhishek Gupta, Veereshwar Bhatnagar, Anjan Kumar Dhua, Manisha Jana, **Archana Singh**, Rohan Malik. Correlation of Hepatic Artery Resistive Index with Portal Pressure and Serum Nitric Oxide Levels in Patients with Extrahepatic Portal Vein Obstruction. J Indian Assoc Pediatr Surg. 2020; 25(1): 38–42. PMC6910058
18. Shashi Kant, Ravneet Kaur, Farhad Ahamed, **Archana Singh**, Sumit Malhotra, Rakesh Kumar. Effectiveness of intravenous ferric carboxymaltose in improving hemoglobin level among postpartum women with moderate-to-severe anemia at a secondary care hospital in Faridabad, Haryana – An interventional study. Indian Journal of public health. 2020;64(2):168-172
19. Panda S, Faisal S, Kumar K, Seelan DM, Sharma A, Gupta NK, Datta S, **Singh A***. Role of Regulatory Proteins Involved in Iron Homeostasis in Pulmonary Tuberculosis Patients and Their Household Contacts. Indian J Clin Biochem. 2022 ;37(1):77-84. PMID: 35125696. **(Impact Factor 2.0)**
20. Yadav H, Irugu D, Ramakrishanan L, **Singh A**, Abraham R, Sikka K, Thakar A, Verma H. An evaluation of serum Otolin-1 & Vitamin-D in benign paroxysmal positional vertigo. Journal of Vestibular Research: Equilibrium & Orientation, 06 Mar 2021, DOI: 10.3233/ves-201601 PMID: 33720865
21. Kaur R, Kant S, Haldar P, Ahamed F, **Singh A**, Dwarakanathan V, Malhotra S, Yadav K. Single Dose of Intravenous Ferric Carboxymaltose Prevents Anemia for 6 Months among Moderately or Severely Anemic Postpartum Women: A Case Study from India. Curr Dev Nutr. 2021 ;8;5(7): nzab078. PMID: 34268465
22. Gupta S, Haldar P, **Singh A**, Malhotra S, Kant S. Prevalence of serum cobalamin and folate deficiency among children aged 6-59 months: A hospital-based cross-sectional study from Northern India. J Family Med Prim Care. 2022;11(3):1063-1069. PMID: 35495818.

23. Lavisha Goel, Ujjalkumar Subhash Das, Pooja Gupta, Thirumurthy Velpandian, Lalit Kumar, **Archana Singh**, Kalpana Luthra & Yogendra Kumar Gupta. Development and Validation of Highly Sensitive LC–ESI-MS/MS Method for Bortezomib and Its Applications for Plasma Levels and Drug Content of Branded and Generic Formulations in India. *Chromatographia*. 2022; 85, 127–135.
24. Ahirwar A, **Singh A**, Bhattacharjee J. Biological reference interval of nitric oxide in health and disease. *Hormone Molecular Biology and Clinical Investigation*. 2022; 43(3): 315-321.
25. Panda S, Seelan DM, Faisal S, Arora A, Luthra K, Palanichamy JK, Mohan A, Vikram NK, Gupta NK, Ramakrishnan L, **Singh A***. Chronic hyperglycemia drives alterations in macrophage effector function in pulmonary tuberculosis. *Eur J Immunol*. 2022 Oct;52(10):1595-1609. PMID: 36066992. **(Impact Factor 5.2)**
26. Ramaswamy G, Jaiswal A, Vohra K, Kaur R, Bairwa M, **Singh A**, Sethi V, Yadav K. Correction Equation for Hemoglobin Values Obtained Using Point of Care Tests-A Step towards Realistic Anemia Burden Estimates. *Diagnostics (Basel)*. 2022; 12(12):3191. PMID: 36553198.
27. Sudhasini Panda, Ambrish Tiwari, Vivek Kumar, Kalpana Luthra, Kuldeep Kumar, **Archana Singh***. Protective Role of Vitamin D against Development of Active Tuberculosis in Close Household Contacts of Pulmonary Tuberculosis Patients: A Prospective Cohort Study. *Ind J Clin Biochem* (2023) <https://doi.org/10.1007/s12291-022-01110-3> **(Impact Factor 2.0)**
28. Sudhasini Panda, Shah Faisal, Diravya M Seelan, Manisha Dagar, Lokesh Mandlecha, Vidushi Varshney, Mridul Sharma, Kalpana Luthra, Neeraj Kumar Gupta, **Archana Singh***. Protective role of human beta-defensin-2 and cathelicidin in high risk close household contacts of pulmonary tuberculosis. *Clinical Immunology Communications*, Volume 3, 2023, Pages 23-30, ISSN 2772-6134, <https://doi.org/10.1016/j.clicom.2023.02.006>.
29. Arora A, **Singh A***. Exploring the role of neutrophils in infectious and noninfectious pulmonary disorders. *Int Rev Immunol*. 2023 Jun 24:1-21. doi: 10.1080/08830185.2023.2222769. Epub ahead of print. PMID: 37353973. **(Impact Factor 4.3)**
30. Dr. Jyoti Meena, Dr. Soniya Dhiman, **Dr. Archana Singh**, Dr. Vanamail Perumal, Dr. Seema Singhal, Predictive and prognostic significance of placental growth factor in pregnant women at high-risk for development of preeclampsia. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2023 Oct;12(10):3036-3042
31. Mishra, A.K.; Gupta, A.; Dagar, G.; Das, D.; Chakraborty, A.; Haque, S.; Prasad, C.P.; **Singh, A.**; Bhat, A.A.; Macha, M.A.; et al. CAR-T-Cell Therapy in Multiple Myeloma: B-Cell Maturation Antigen (BCMA) and Beyond. *Vaccines* 2023, 11, 1721. <https://doi.org/10.3390/vaccines11111721> (Impact factor 7.8)
32. Yadav K, Ramaswamy G, Puri S, Vohra K, Achary T, **Archana Singh**, et al. (2024) Prevalence and determinants of anemia due to micronutrient deficiencies among children aged 12–59 months in India—Evidence from Comprehensive National Nutrition Survey, 2016–18. *PLOS Global Public Health* 4(1): e0002095.
33. Panda, S., Arora, A., Luthra, K., Mohan, A., Vikram, N. K., Kumar Gupta, N., & **Singh, A***. (2024). Hyperglycemia modulates M1/M2 macrophage polarization in chronic diabetic patients with pulmonary tuberculosis infection. *Immunobiology*, 229(2), 152787. Advance online publication. <https://doi.org/10.1016/j.imbio.2024.152787>
34. Goel L, Gupta P, Kumar L, Velpandian T, **Singh A**, Luthra K, Gupta YK. Effect of CYP2C19 polymorphism on response to bortezomib-based therapy in multiple myeloma patients. *Am J Med Sci*. 2024 Mar 30:S0002-9629(24)01149-2. doi: 10.1016/j.amjms.2024.03.022. Epub ahead of print. PMID: 38561047

35. Panda, S., Tiwari, A., Luthra, K. & **Archana Singh***. Nitric oxide brings innate immune resistance to M. tuberculosis infection among high-risk household contacts of pulmonary tuberculosis patients. J Biosci 49, 73 (2024). <https://doi.org/10.1007/s12038-024-00459-2>. **(Impact Factor 2.3)**
36. Sharma, Vidushi and Arora, Alisha and Vats, Deepak, Luthra, Kalpana, Vaishnav, Pardeep and **Singh, Archana***. Harnessing predatory potential of bdellovibrio bacteriovorus against mycobacterium tuberculosis as a living antibiotic. available at ssrn: <https://ssrn.com/abstract=4776288> or <http://dx.doi.org/10.2139/ssrn.4776288>
37. Khanam A, Chandra A, Achary T, Vohra K, M A, **Singh A**, Kapil Yadav. Validation of new invasive digital hemoglobinometer for hemoglobin estimation as point-of-care device among pregnant women in a facility setting India. Indian J Community Health [Internet]. 2024 Apr. 30 [cited 2024 May 30];36(2):272-7.
38. Pritam Halder, Shashikant, **Archana Singh**, Ravneet Kaur. Comparison of Measurement of Hemoglobin Concentration by HemoCue 201 and HemoCue 301 with Sysmex Automated Hematology Analyser Among Non-Pregnant Women of Reproductive age group (15-49 years) in a Rural Area of Haryana. Indian Journal of public health. May 2024 (Accepted)
39. Srinath, Kathirvel; Kaur, Ravneet; Singh, Archana; Kalaivani, Mani; Kant, Shashi; Misra, Puneet; Gupta, Sanjeev K. Anaemia and selected micronutrient deficiencies among young women in rural North India – A community-based study. Journal of Family Medicine and Primary Care 13(10):p 4424-4431, October 2024.
40. Srinath K, Kaur R, **Singh A**, Kalaivani M, Kant S, Misra P, et al. Triple burden of malnutrition among young women aged 15-24 years in a rural area of Haryana, India. Indian J Community Med. 2024
41. Pritam Halder, Shashikant, **Archana Singh**, Ravneet Kaur. Intravenous iron sucrose when administered to moderately anemic pregnant women raises the hemoglobin concentration and replenishes body iron at six months" is *accepted* in Journal of Family Medicine and Primary Care. June 2024.
42. Vats D, Rani G, Arora A, Sharma V, Rathore I, Mubeen SA, **Singh A***. Tuberculosis and T cells: Impact of T cell diversity in tuberculosis infection. Tuberculosis (Edinb). 2024 Sep 18;149:102567. doi: 10.1016/j.tube.2024.102567. Epub ahead of print. PMID: 39305817. **(Impact Factor 2.8)**
43. Shah Faisal, Deepak Vats, Sudhasini Panda, Vidushi Sharma, Kalpana Luthra, Anant Mohan, Savita Kulkarni, Pramod Kumar Gupta, **Archana Singh***. Synergistic role of Mycobacterium indicus pranii and human beta Defensin-2 as adjunctive therapy against Mycobacterium tuberculosis. Tuberculosis, Volume 149, 2024, 102571, ISSN 1472-9792, <https://doi.org/10.1016/j.tube.2024.102571>. **(Impact Factor 2.8)**
44. Singh A.K., Koley T., Vats D., **Singh Archana**, Samath Ethayathulla Abdul, Batra Atul, Dey Sharmistha. Novel inhibitor against Rac1 for therapeutic approach in prevention of breast cancer progression. Sci Rep 14, 25083 (2024). <https://doi.org/10.1038/s41598-024-75351-y> **(Impact Factor 3.8)**
45. Mubeen SA, Vats D, Yadav K, Sharma A, **Singh A***. CD14⁺⁺CD16⁻ classical monocyte subset secreting IL-1 β and IL-10 is associated with tuberculosis resister phenotype. Human Immunology. 2025;86(2):111240. **(Impact factor 3.1)**
46. Naeem SS, Gupta P, Sahoo RK, Kumar VL, Velpandian T, **Singh A**, Batra A, Pramanik R, Rastogi S, Srivastava S. A randomized, double-blind, placebo-controlled trial evaluating topical urea for secondary prophylaxis of hand-foot skin reaction in renal cell cancer patients on sunitinib therapy. Clinical Genitourinary Cancer. 2024;22(3):102073.

47. Rajan S, Dhamija E, Malhotra N, Kaur P, Yadav RK, Meena J, Kumari R, **Singh A**, Khurana S, Deb KS, Upadhyay AD, Singhal S. Nutritional assessment in gynecological cancers: experience from an Indian tertiary care center. *European Journal of Obstetrics & Gynecology and Reproductive Biology*. 2025;310:113964.
48. Rajan S, Dhamija E, Malhotra N, Vats D, **Singh A**, Singhal S. Cachexia in gynecologic cancers: The role of biomarkers and cachexia index. *Int J Gynaecol Obstet*. 2025 May 31. doi: 10.1002/ijgo.70262. Epub ahead of print. PMID: 40448418.
49. Kapoor S, Gupta N, Raja KD, Qamar I, **Singh A**, Sharma A. Palmitic acid adjunctive therapy upregulates bax/bcl-2 ratio and displays apoptosis as mode of anti-tumorigenic effects in multiple myeloma cells. *Leuk Lymphoma*. 2025 Sep 1:1-13. doi:10.1080/10428194.2025.2547246. Epub ahead of print. PMID: 40889522.
50. Ravi Chauhan , Gunjan Dagar, Lakshay Malhotra, Ashna Gupta, Anju Surendranath, Harshul Kapoor, Hemant Yadav, Rajat Ujjainiya, Suraja Kumar Das, Sameer Mirza , Mukesh Tanwar , Pranay Tanwar, Abdul S Ethayathulla, **Archana Singh**, Muzafar A Macha, Shahab Uddin, Ammira S Al-Shabeeb Akil, Sandeep Mathur, Tej K Pandita , Ajaz A Bhat, Mayank Singh. Targeting ubiquitin-specific protease 14 reduces metastatic potential and metabolic activity in cervical cancer via direct modulation of monocarboxylate transporter-4. *J Transl Med*. 2025;24(1):33. Published 2025 Dec 2. doi:10.1186/s12967-025-07442-x
51. Jaiswal A, Achary T, Khanam A, M A, Bairwa M, **Singh A**, Yadav K. Validation of a point-of-care testing device for serum ferritin estimation in an outpatient facility in India. *Indian Journal of Hematology and Blood Transfusion*. 2025;41(4):856–862.
52. Srinath K, Kaur R, **Singh A**, Gupta SK. Preconceptional nutritional risk among young women (15–24 years) in rural northern India: a cross-sectional study. *Indian Journal of Youth and Adolescent Health*. 2025;12(1):10–16.
53. Dagar G, Gupta A, Dagar M, Sharma P, Das SK, Rehmani MU, Macha MA, Tanwar M, Kumar V, Mirza S, **Singh A**, Shabeeb Akil AS, Bhat AA, Singh M. Heat shock proteins (HSPs) as chaperones for oncogenesis. *Advances in Protein Chemistry and Structural Biology*. 2025;148:229–254.
54. Pattnaik SS, Sarangi SC, Dash Y, **Singh A**, Goswami R, Singh S, Khan MA, Banerjee J, Datta SK, Tripathi M. Role of vitamin D supplementation and vitamin D receptor in drug-resistant epilepsy: A double-blind placebo-controlled trial conducted in India. *Epilepsia*. 2025 Jun 14. doi: 10.1111/epi.18492. Epub ahead of print. PMID: 40516032.
55. Kabilan Yuvanesh, Verma Hitesh, Murugesan Ramaneeshwaran, Thakar Alok , Kumar Rakesh, Sikka Kapil, Sagar Prem, Bhalla Ashu Seith, Madan Karan, Akhtar Nasreen, **Singh Archana**. Evaluation of Eustachian Tube Function and Acid Reflux With Site of Obstruction in Obstructive Sleep Apnea. *Journal of sleep medicine: J Sleep Med* 2025, vol.22, no.1, pp. 17-25.
56. Halder, Pritam; Kant, Shashi; **Singh, Archana**; Kaur, Ravneet. Comparison of Measurement of Hemoglobin Concentration by HemoCue 201 and HemoCue 301 with Sysmex Automated Hematology Analyzer among Nonpregnant Women of Reproductive Age Group (15–49 Years) in a Rural Area of Haryana. *Indian Journal of Public Health* 69(3):p 273-279, Jul–Sep 2025. | DOI: 10.4103/ijph.ijph_1405_23