

SHUBHAM MISRA, M. Tech, Ph.D.

Telephone: +1 4754148724, +91 8851606703

E-mail: shubham.misra@yale.edu, shubham.misra30@gmail.com

[ORCID ID](#) • [Academic Website](#) • [Yale Profile](#)

RESEARCH SUMMARY

I am a clinical neuroscientist developing blood-based biomarkers to address critical gaps in stroke diagnosis, triage, and time-sensitive treatment decision-making. My research integrates high-throughput plasma proteomics, machine learning, and clinical data to identify multi-protein signatures for accurate stroke classification and early detection of large-vessel occlusion. As Principal Investigator of an American Heart Association-funded project (BLOOD-LVO study), I lead efforts to translate these biomarkers into clinically actionable tools for prehospital triage. My long-term goal is to establish an independent research program in translational neuroproteomics focused on precision diagnostics in acute neurological disorders.

EDUCATIONAL QUALIFICATIONS

- **Ph.D. in Neurology** **August 2016-August 2022**
Department of Neurology, All India Institute of Medical Sciences, New Delhi, India
Supervisor: Prof. Dr. Deepti Vibha
Thesis topic: To determine the diagnostic performance characteristics of blood-based protein biomarkers for the diagnosis of acute stroke using high-throughput proteomics approach.
- **B. Tech + M. Tech in Biotechnology (Dual Degree)** **July 2009-July 2014**
Amity Institute of Biotechnology, Amity University, Noida, Uttar Pradesh, India
CGPA: 8.35/10 (University Gold Medallist)

EMPLOYMENT

- **Postdoctoral Associate** **February 2024-Present**
Department of Neurology, Yale University School of Medicine, New Haven, CT, USA
Supervisor: Dr. Srikant Rangaraju
Project topic: Plasma proteomic biomarkers in stroke and neurodegenerative disorders.
- **Postdoctoral Associate** **August 2022-January 2024**
Department of Neurology, Yale University School of Medicine, New Haven, CT, USA
Supervisor: Dr. Nishant K. Mishra
Project topic: Characterizing the biomarkers, outcomes, and predictors of patients with post-stroke epilepsy.
- **Postgraduate Associate** **March 2022-August 2022**
Department of Neurology, Yale University School of Medicine, New Haven, CT, USA
Supervisor: Dr. Nishant K. Mishra
Project topic: Characterizing the biomarkers, outcomes, and predictors of patients with post-stroke epilepsy.
- **Junior Research Fellow** **November 2014-October 2016**
Department of Neurology, All India Institute of Medical Sciences, New Delhi, India
Supervisor: Prof. Dr. Kameshwar Prasad
Project topic: Biomarkers to enhance the accuracy and precision of prediction of short-term and long-term outcome after spontaneous intracerebral haemorrhage: a prospective cohort study.

RESEARCH FUNDING AND GRANTS

1. **Principal Investigator** **January 2026-December 2027**
Project title: Blood Biomarkers of Large Vessel Occlusion Strokes (BLOOD-LVO study)
Organization: Yale University, New Haven, CT
Funding: American Heart Association (USD 163,864)
DOI: <https://doi.org/10.58275/AHA.26POST1550783.pc.gr.240412>

2. Coordinator

May 2022-Present

Project title: International Post Stroke Epilepsy Research Repository.

Organization: Yale University, New Haven, CT

Funding: Departmental funding

3. Co-Investigator

September 2017-August 2019

Project title: Empirical antibiotics in acute stroke patients with fever and their outcome: an ambispective cohort study.

Organization: All India Institute of Medical Sciences, New Delhi, India

Funding: AIIMS Intramural Grant (INR 500,000)

FELLOWSHIPS AWARDED

- **AHA Postdoctoral Fellowship**, American Heart Association. **2026**
- **DST-INSPIRE Senior Research Fellowship**, Department of Science & Technology, Government of India. **2019**
- **DST-INSPIRE Junior Research Fellowship**, Department of Science & Technology, Government of India. **2016**

ACADEMIC AWARDS AND HONORS

- **Second Prize in Shri K Mishra, MD Neurology Trainee Award**, Association of Indian Neurologists in America (AINA). **2026**
- **Junior Investigator Travel Grant**, American Heart Association, International Stroke Conference 2025 in Los Angeles, USA. **2025**
- **International Travel Grant**, European Stroke Organisation, 9th European Stroke Organisation Conference in Munich, Germany. **2023**
- **International Travel Grant**, European Stroke Organisation, 8th European Stroke Organisation Conference in Lyon, France. **2022**
- **International Travel Grant**, Immunology Foundation, 24th World Congress of Neurology in Dubai, UAE. **2019**
- **International Travel Grant**, All India Institute of Medical Sciences-Endowment Fund, 5th European Stroke Organisation Conference in Milan, Italy. **2019**
- **International Travel Grant**, European Molecular Biology Organisation (EMBO), EMBO practical course on “*Targeted proteomics: Experimental design and data analysis*” in Barcelona, Spain. **2018**
- **International Travel Grant**, Department of Biotechnology, Government of India, 11th World Stroke Congress in Montreal, Canada. **2018**
- **International Travel Grant**, World Congress of Neurology, 23rd World Congress of Neurology in Kyoto, Japan. **2017**
- **International Travel Grant**, European Stroke Organisation, 3rd European Stroke Organisation Conference in Prague, Czech Republic. **2017**
- **Young Investigator Award**, World Stroke Organization, 11th World Stroke Congress in Montreal, Canada. **2016**
- **International Travel Grant**, Malaysian Society of Neurosciences, 15th Asian & Oceanian Congress of Neurology 2016 in Kuala Lumpur, Malaysia. **2016**
- **International Travel Grant**, Department of Science & Technology, Government of India and Centre for International Cooperation in Sciences, 2nd European Stroke Organisation Conference in Barcelona, Spain. **2016**
- **Gold Medal**, Amity University, Noida, University topper in B. Tech and M. Tech dual degree course. **2014**
- **Best Poster Award**, International Conference on Emerging Trends in Biotechnology (ICETB), JNU, New Delhi, India. **2014**
- **Merit Scholarship Awards**, Amity University, Noida, for outstanding academic achievements in three consecutive years. **2012-2014**

SELECTED PEER-REVIEWER PUBLICATIONS (TOP 10)

Total Citations: 1756; **h-Index:** 23; **i10 Index:** 50

Total peer-reviewed publications: 61; **First/Joint first author:** 21

Please see [Google Scholar](#) for a complete list of my published work.

1. **Misra S**, Jang WE, Sanchez S, Natu A, Kumar P, Liu M, Kaur A, Lopez VT, Caglayan P, Garcia-Milian R, Watson CM, Frankel MR, Falcone GJ, Sansing LH, Rangaraju S.
Cross-Platform Proteomics and Machine Learning Algorithms Nominate Plasma Biomarkers of Stroke Diagnosis. Journal of the American Heart Association. 2026 Mar 10:e048249. [PMID: 41804885](#).
2. **Misra S**, Wang S, Quinn TJ, Dawson J, Zelano J, Tanaka T, Grotta JC, Khan E, Beriwal N, Funaro MC, Perla S, Dev P, Larsson D, Hussain T, Liebeskind DS, Yasuda CL, Altalib HH, Zaveri HP, Elshahat A, Hitawala G, Wang EY, Kitagawa R, Pathak A, Scalzo F, Ihara M, Sunnerhagen KS, Walters MR, Zhao Y, Jette N, Kasner SE, Kwan P, Mishra NK.
Antiseizure Medications in Poststroke Seizures: A Systematic Review and Network Meta-Analysis. Neurology 2025 Feb 11;104(3):e210231. [PMID: 39808752](#).
3. **Misra S**, Singh P, Sengupta S, Kushwaha M, Rahman Z, Bhalla D, Talwar P, Nath M, Chakraborty R, Kumar P, Kumar A, Aggarwal P, Srivastava AK, Pandit AK, Mohania D, Prasad K, Mishra NK, Vibha D.
Subtyping strokes using blood-based protein biomarkers: A high-throughput proteomics and machine learning approach. European Journal of Clinical Investigation 2024 Dec 10:e14372. [PMID: 39655799](#).
4. Clocchiatti-Tuozzo S*, Rivier CA*, **Misra S**, Zelano J, Mazumder R, Sansing LH, de Havenon A, Hirsch LJ, Liebeskind DS, Gilmore EJ, Sheth KN, Kim JA, Worrall BB, Falcone GJ, Mishra NK.
Polygenic Risk of Epilepsy and Poststroke Epilepsy. Stroke. 2024 Dec;55(12):2835-2843. [PMID: 39502073](#). (*Equal contribution).
5. **Misra S**, Kawamura Y, Singh P, Sengupta S, Nath M, Rahman Z, Kumar P, Kumar A, Aggarwal P, Srivastava AK, Pandit AK, Mohania D, Prasad K, Mishra NK, Vibha D.
Prognostic biomarkers of intracerebral hemorrhage identified using targeted proteomics and machine learning algorithms. PLoS One 2024 Jun 3;19(6):e0296616. [PMID: 38829877](#).
6. **Misra S**, Singh P, Nath M, Bhalla D, Sengupta S, Kumar A, Pandit AK, Aggarwal P, Srivastava AK, Mohania D, Prasad K, Vibha D.
Blood-based protein biomarkers for the diagnosis of acute stroke: A discovery-based SWATH-MS proteomic approach. Frontiers in Neurology 2022 Sep 27; 13:989856. [PMID: 36237606](#).
7. **Misra S**, Kasner SE, Dawson J, Tanaka T, Zhao Y, Zaveri HP, Eldem E, Vazquez J, Silva LS, Mohidat S, Hickman LB, Khan EI, Funaro MC, Nicolo JP, Mazumder R, Yasuda CL, Sunnerhagen KS, Ihara M, Ross JS, Liebeskind DS, Kwan P, Quinn TJ, Engel J Jr, Mishra NK.
Outcomes in Patients With Poststroke Seizures: A Systematic Review and Meta-Analysis. JAMA Neurology 2023 Nov 1;80(11):1155-1165. [PMID: 37721736](#).
8. **Misra S***, Khan E*, Lam TT, Mazumder R, Gururangan K, Hickman LB, Goswami V, Funaro MC, Eldem E, Sansing LH, Sico JJ, Quinn TJ, Liebeskind D, Montaner J, Kwan P, Mishra NK.
The Common Pathways of Epileptogenesis in Patients With Epilepsy Post-Brain Injury: Findings From a Systematic Review and Meta-analysis. Neurology 2023 Nov 27;101(22):e2243-e2256. [PMID: 37550071](#). (*Equal contribution).
9. **Misra S**, Kolappa K, Prasad M, Radhakrishnan D, Thakur KT, Solomon T, Michael BD, Winkler AS, Beghi E, Guekht A, Pardo CA, Wood GK, Hsiang-Yi Chou S, Fink EL, Schmutzhard E, Kheradmand A, Hoo FK, Kumar A, Das A, Srivastava AK, Agarwal A, Dua T, Prasad K.
Frequency of Neurologic Manifestations in COVID-19: A Systematic Review and Meta-analysis. Neurology 2021 Dec 7;97(23):e2269-e2281. [PMID: 34635561](#).
10. **Misra S**, Montaner J, Ramiro L, Arora R, Talwar P, Nath M, Kumar A, Kumar P, Pandit AK, Mohania D, Prasad K, Vibha D.
Blood biomarkers for the diagnosis and differentiation of stroke: A systematic review and meta-analysis. International Journal of Stroke 2020 Oct; 15(7):704-721. [PMID: 32746751](#).

BOOKS/BOOK CHAPTERS PUBLISHED

1. Mishra NK, **Misra S**, Annoni JM. *Language in bilingual speakers with neurodegenerative disease*, in Louise Cummings (ed.), *The Oxford Handbook of Communication Disorders in Neurodegenerative Diseases*, Oxford Library of Psychology (2025; online edn, Oxford Academic, 22 Oct. 2025), <https://doi.org/10.1093/oxfordhb/9780198888482.013.0020>.
2. **Misra S**, Kumar P, eds. (2024). *Omics-based approaches in stroke research*. Lausanne: Frontiers Media SA. DOI: [10.3389/978-2-8325-5355-8](https://doi.org/10.3389/978-2-8325-5355-8)
3. Vibha D, **Misra S**. *Blood Biomarkers for Stroke Differentiation*. In *Stroke Biomarkers*; Peplow, P.V., Dambinova, S.A., Martinez, B., Eds.; Humana Press: New York, NY, USA, 2020; pp. 79–111, ISBN 9781493996810. https://link.springer.com/protocol/10.1007/978-1-4939-9682-7_6.

CONTRIBUTIONS TO WHO GUIDELINES AND SCIENTIFIC BRIEFS

1. Living guidance for clinical management of COVID-19, 23 November 2021. World Health Organization (WHO) reference number: WHO/2019-nCoV/clinical/2021.2. <https://www.who.int/publications/i/item/WHO-2019-nCoV-clinical-2021-2>.
2. Neurology and COVID-19: Scientific brief, 29 September 2021. World Health Organization (WHO) reference number: WHO/2019-nCoV/Sci_Brief/Neurology/2021.1. <https://www.who.int/publications/i/item/WHO-2019-nCoV-Sci-Brief-Neurology-2021.1>.
3. COVID-19 Clinical Management Living Guidance, 25 January 2021. World Health Organization (WHO) reference number: WHO/2019-nCoV/clinical/2021.1. <https://www.who.int/publications/i/item/WHO-2019-nCoV-clinical-2021-1>.

PATENT APPLICATIONS

1. **US Provisional Patent Application No. 63/974,020** **February 2026**
Title: Methods of diagnosing, sorting, stratifying or treating patients suffering from stroke or stroke mimics.
Contributors: Srikant Rangaraju, **Shubham Misra**, Richa Sharma, Wooyoung Jang, Ho-Joon Lee.
Status: Filed.

TALKS GIVEN

1. **78th American Academy of Neurology Annual Meeting, Chicago, USA** **April 2026**
Discovery Proteomics Using Data Independent Acquisition-Based Mass Spectrometry Nominate Biomarkers of Stroke Diagnosis.
2. **International Stroke Conference 2026, New Orleans, USA** **February 2026**
Plasma Proteomics Nominate Biomarker Candidates Of Acute Large Vessel Occlusion Strokes.
3. **International Stroke Conference 2025, Los Angeles, USA** **February 2025**
Data Independent Acquisition Mass Spectrometry Identifies Novel Plasma Protein Biomarkers that Distinguish Transient Ischemic Attack from Stroke Mimics.
4. **75th American Academy of Neurology Annual Meeting, Boston, USA** **April 2023**
Mortality and functional outcomes in patients with post-stroke epileptic seizures: a systematic review and meta-analysis.
5. **11th World Stroke Congress, Montreal, Canada** **October 2018**
Blood based protein biomarkers for the differentiation of ischemic stroke from stroke mimics: a systematic review and meta-analysis.
6. **25th Annual Conference of the Indian Academy of Neurology, Chennai, India** **September 2017**
Brain Natriuretic Peptide, Matrix metalloproteinase-9, S100B, C- Reactive Protein biomarkers for differentiating stroke from stroke mimics: A systematic review and meta-analysis.
7. **23rd World Congress of Neurology, Kyoto, Japan** **September 2017**

- 8. 3rd European Stroke Organisation Conference, Prague, Czech Republic May 2017**
To determine the diagnostic performance characteristics of blood-based protein biomarkers for the differentiation of stroke using high-throughput proteomics approach: A study protocol.

TOP 10 CONFERENCE ABSTRACTS (FIRST AUTHOR)

1. **Misra S**, Lee W, Kumar P, Lopez VT, Sansing L, Falcone G, Frankel M, Zhao H, Sharma R, Rangaraju S. *Plasma Proteomics Nominate Biomarker Candidates Of Acute Large Vessel Occlusion Strokes (Abstract A139)*. [Stroke 2026 Jan; 57 \(Suppl 1\)](#). (International Stroke Conference, February 2026, New Orleans, USA).
2. **Misra S**, Lee W, Kumar P, Lopez VT, Sansing L, Falcone G, Frankel M, Zhao H, Sharma R, Rangaraju S. *Plasma Proteomics Nominate Biomarker Candidates Of Atrial Fibrillation In Stroke Patients (Abstract WP289)*. [Stroke 2026 Jan; 57 \(Suppl 1\)](#). (International Stroke Conference, February 2026, New Orleans, USA).
3. **Misra S**, Natu A, Kumar P, Watson C, Frankel M, Rangaraju S. *Cross-Platform Proteomics and Machine Learning Algorithms Nominate Biomarkers of Atrial Fibrillation in Stroke Patients: An Exploratory Study (Abstract WP93)*. [Stroke 2025 Jan; 56 \(Suppl 1\)](#). (International Stroke Conference, February 2025, Los Angeles, USA).
4. **Misra S**, Singh P, Sengupta S, Nath M, Rahman Z, Kumar P, Mishra NK, Kumar A, Aggarwal P, Srivastava AK, Pandit AK, Mohania D, Gulati A, Prasad K, Vibha D. *Prognostic biomarkers for predicting poor outcome and mortality after ischemic stroke and intracerebral hemorrhage using a targeted proteomics approach (P 902)*. [European Stroke Journal 2023 May; 8 \(2 Suppl.\): 417](#). (9th European Stroke Organisation Conference, May 2023, Munich, Germany)
5. **Misra S**, Khan K, Lam T, Mazumder R, Eldem E, Gururangan K, Hickman LB, Goswami V, Funaro M, Montaner J, Quinn T, Liebeskind D, Mishra NK. *Biomarkers as prognostic determinants of epilepsy after acute central nervous system insults: a systematic review and meta-analysis (P3-5.017)*. [Neurology 2023 Apr; 100 \(17 Suppl. 2\): 3292](#). (75th American Academy of Neurology Annual Meeting, April 2023, Boston, USA).
6. **Misra S**, Talwar P, Mishra A, Kumar A, Kumar P, Rai A, Gulati A, Aggarwal P, Pandit AK, Prasad K, Vibha D. *Seasonal and monthly variation of stroke and its subtypes in the north Indian population (WCN19-1744)*. [Journal of the Neurological Sciences 2019 Oct; 405 \(Suppl.\): 130](#). (24th World Congress of Neurology, October 2019, Dubai, UAE).
7. **Misra S**, Kumar A, Talwar P, Sagar R, Kumar P, Gulati A, Pandit AK, Mohania D, Prasad K, Vibha D. *Diagnostic accuracy of total leucocyte count and C-reactive protein as blood-based protein biomarkers in differentiating hemorrhagic stroke from ischemic stroke (WSC18-0675)*. [International Journal of Stroke 2018 Oct; 13 \(2 Suppl.\): 139-140](#). (11th World Stroke Congress, October 2018, Montreal, Canada).
8. **Misra S**, Singh P, Sengupta S, Kushwaha M, Rahman Z, Bhalla D, Talwar P, Chakraborty R, Nath M, Kumar P, Kumar A, Aggarwal P, Srivastava AK, Pandit AK, Mohania D, Gulati A, Prasad K, Vibha D. *A proteomics approach towards identification and validation of blood-based protein biomarkers for the diagnosis and differentiation of ischemic stroke (P0782/877)*. [European Stroke Journal 2022 May; 7 \(1 Suppl.\): 443](#). (8th European Stroke Organisation Conference, May 2022, Lyon, France).
9. **Misra S**, Kumar A, Sagar R, Agrawal C, Kaul B, Gorthi SP, Dabla S, Mohania D, Vibha D, Prasad K. *Role of copeptin as a biomarker for predicting outcome after spontaneous intracerebral hemorrhage: A prospective cohort study (WCN17-3321)*. [Journal of the Neurological Sciences 2017 Sep; 381 \(Suppl.\): 622](#). (23rd World Congress of Neurology, September 2017, Kyoto, Japan).

10. **Misra S**, Kumar A, Kumar P, Sagar R, Prasad K. *Association between Beta-Fibrinogen C148T gene polymorphism and risk of ischemic stroke in North Indian Population: A case-control study (WSC-0106)*. [International Journal of Stroke 2016 Oct; 11 \(3 Suppl.\): 55](#). (10th World Stroke Congress, October 2016, Hyderabad, India).

TEACHING EXPERIENCE

- **Data analysis considerations: Analytical Approaches in Proteomics** **October 2025**
Took a class in the Interdepartmental Neuroscience Program (INP)- Mini Course, Rangaraju Lab, Department of Neurology, Yale School of Medicine.
- **Gene Ontology Approaches in Proteomics** **October 2025**
Took a class in the Interdepartmental Neuroscience Program (INP)- Mini Course, Rangaraju Lab, Department of Neurology, Yale School of Medicine.
- **How to calculate sample size for observational studies in R** **March 2025**
Peer-to-peer teaching workshop (2 hours), Bioinformatics Support Hub, Cushing/Whitney Medical Library, Yale School of Medicine. <https://schedule.yale.edu/event/14257858>
- **Proteomics data analysis in R for intermediate users** **November 2022**
Peer-to-peer teaching workshop (2 hours), Bioinformatics Support Hub, Cushing/Whitney Medical Library, Yale School of Medicine. https://guides.library.yale.edu/proteomics_p2p

MENTORSHIP EXPERIENCE

- **Research Mentor** **January 2026-June 2026**
Consultation and structural guidance to fellows on Research Methodology at the Department of Neurology, Zucker School of Medicine at Hofstra-Northwell.
Supervisor of Research Mentorship program: Dr. Rohan Arora
- **Anmol Kaur, Visiting Khorana Scholar, Yale** **June 2025-November 2025**
Supervised a project on “Proteomics-based biomarker discovery for stroke diagnosis”.
Contributing author on 1 manuscript (PMID: 41804885).
- **Pei Yi Chook, Visiting Medical Student, Yale** **July 2023-August 2023**
Supervised a project on “Identifying the predictors of post-stroke seizures in patients with intracerebral hemorrhage: A retrospective cohort study”.
Contributing author on 1 manuscript (In Press).
- **Ethan Wang, Medical Student, Yale** **March 2023-December 2025**
Supervised a project on “Characterizing inflammatory biomarkers in post-stroke seizure risk and outcome prognostication”.
Contributing author on 3 manuscripts, including 1 first-author (PMID: 39808752, 2 In Press).

OTHER SCIENTIFIC APPOINTMENTS

- **Adjunct Research Fellow** **January 2026-January 2027**
Department of Neuroscience, School of Translational Medicine
Faculty of Medicine Nursing and Health Sciences, Monash University, Melbourne, Australia
- **Module Working Group Member, European Stroke Organization** **July 2025-Present**
Member of the “*Module Working Group*” in the development of a guideline on the “*Management of post-stroke seizures and epilepsy*” for the European Stroke Organization (ESO).
Supervisor: Dr. Nishant K. Mishra
Responsibilities: ESO guideline development and evidence synthesis using systematic reviews and meta-analyses.
- **Member, World Health Organization** **November 2020-November 2024**
Member of the “*Neurology & COVID-19 Global Forum*” and “*Acute Clinical Care & Support Working Group*” at the Brain Health Unit of the World Health Organization (WHO).

Responsibilities: WHO guideline development, scientific brief development, and evidence synthesis using systematic reviews and meta-analyses.

- **Clinical Research Coordinator (CRC)** **January 2020-September 2021**
Department of Neurology, All India Institute of Medical Sciences, New Delhi, India
Supervisor: Prof. Dr. Deepti Vibha
Project topic: A prospective, multicentric, randomized, double-blind, parallel, phase III clinical study to assess efficacy of PMZ-1620 along with standard treatment in patients of acute ischemic stroke.
- **Clinical Research Coordinator (CRC)** **February 2018-August 2019**
Department of Neurology, All India Institute of Medical Sciences, New Delhi, India
Supervisor: Prof. Dr. Deepti Vibha
Project topic: A prospective, Multicentric, Randomized, Double blind, Parallel, Saline, Controlled Phase-II Clinical Study to Compare the Safety and Efficacy of PMZ-1620 Therapy along with Standard Supportive Care in Subjects of Acute Ischemic Stroke.
- **Project Associate** **December 2012-October 2014**
Amity Institute of Biotechnology, Amity University, Noida, Uttar Pradesh, India
Supervisor: Dr. Prabhanshu K. Dwivedi
Project title: Development of study material for competitive examinations, especially the National Eligibility Test (NET) and Graduate Aptitude Test in Engineering (GATE) in the domain of Life Science and Biotechnology.

RESEARCH TRAININGS

- **Project trainee (Master's thesis)** **March 2014-June 2014**
Amity Institute of Biotechnology, Amity University, Noida, Uttar Pradesh, India
Supervisor: Dr. Rachana Sahney, *Co-supervisor:* Dr. Arpita Bhattacharya
Project topic: Nano-encapsulation of urease enzyme in alginate biopolymers and study of its enzyme kinetics.
- **Project trainee** **May 2013-June 2013**
Defence Research & Development Organisation- Defence Institute of Physiology & Allied Sciences (DRDO- DIPAS), New Delhi, India
Supervisor: Dr. R.C. Meena
Project topic: Yeast transformation- To study the upregulation or downregulation of DNA repair mechanism under CoCl₂ (hypoxia mimicking agent).
- **Project trainee** **May 2012-June 2012**
Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi, India
Supervisor: Dr. Malini R. Capoor
Project topic: Use of fluorescence microscope versus light microscope in direct diagnosis of fungal infections.
- **Project trainee** **May 2011-July 2011**
National Centre for Disease Control, New Delhi, India
Supervisor: Dr. Arvind Rai, *Co-supervisor:* Dr. D.S. Rawat
Project topic: Molecular biology techniques related to important disease pathogens.

SERVICE TO SCIENTIFIC COMMUNITY

- **Remote Referee**, European Research Council (ERC) **2026-Present**
Peer review evaluation of research proposals submitted to ERC.
- **Editor**, Academia Medicine and Health **2025-Present**
- **Guest Editor**, Frontiers in Neurology **2023-2024**
Topic editor for research collection on Omics-Based Approaches in Stroke Research.

- **Reviewer** **2018-Present**
Stroke • Neurology • Annals of Neurology • Science Advances • PLOS ONE • Journal of the American Heart Association • Clinical Neurology and Neurosurgery • Scientific Reports • International Journal of Surgery • Biomarkers.

RESEARCH SKILLS

- **Computational and Data Science:** R • Python • High-dimensional omics data analysis • Machine learning-based prediction modelling for biomarker discovery.
- **Proteomics and Molecular Methods:** Untargeted mass spectrometry proteomics (DIA-MS, SWATH-MS) • SomaScan proteomics assay • Olink proteomics assay • Targeted proteomics (MRM, PRM).
- **Statistical and Bioinformatic Tools:** STATA and SPSS for statistical analysis • Skyline, MetaboAnalyst, Perseus, and DIA-NN for proteomics data analysis • Cytoscape, STRING, ShinyGO, and Ingenuity Pathway Analysis for protein network and pathway enrichment analyses.
- **Evidence synthesis:** Systematic reviews and meta-analyses • Risk of bias assessment • GRADE Framework for rating quality of evidence • Guideline development (WHO, ESO).

CERTIFIED COURSES

- **EMBO practical course on Targeted Proteomics:** Experimental design and data analysis, European Molecular Biology Organization in Barcelona, Spain. **2018**
- **Health Research Fundamentals:** NPTEL Online Certification course, ICMR-National Institute of Epidemiology, India (**Score: 87%, Rank: Elite**). **2017**

ADMINISTRATIVE RESPONSIBILITIES

- Organized the **second annual meeting** of the **International Post Stroke Epilepsy Research Consortium** (IPSERC) in Orlando, Florida, USA. **2023**
- Organized the **first annual meeting** of the **International Post Stroke Epilepsy Research Consortium** (IPSERC) in Nashville, Tennessee, USA. **2022**
- Organized a **workshop on Training of trainers for Stroke Care Management** under the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) at the All India Institute of Medical Sciences, New Delhi, India. **2018**
- Organized a **workshop on Evidence-Based Clinical Practice-2014** conducted by the Clinical Epidemiology Unit at the All India Institute of Medical Sciences, New Delhi, India. **2014**

REFERENCES

1. **Prof. Dr. Deepti Vibha** (PhD thesis guide), Professor, Department of Neurology, All India Institute of Medical Sciences, New Delhi (email ID: deeptivibha@gmail.com).
2. **Dr. Srikant Rangaraju** (current postdoc supervisor), Associate Professor, Department of Neurology, Yale University, USA (email ID: srikant.rangaraju@yale.edu).
3. **Dr. Nishant K. Mishra** (previous postdoc supervisor), Assistant Professor, Department of Neurology, Yale University, USA (email ID: nishant.mishra@yale.edu).

Shubham Misra
(SHUBHAM MISRA)