

Amith Paruchuri

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EDUCATION:

All India Institute of Medical Sciences(AIIMS), New Delhi, India (Medical Student).

Bachelor of Medicine and Bachelor of Surgery (MBBS) (2022- 2027)

Research Experience:

Department of Bioengineering, Emory University, Research Intern

Advisor: Dr. Anant Madabhushi, Professor.

- **Study1:- Deciphering the immune architecture and the role of TILs as a biomarker for survival in DLBCL using Deep Learning (Platform presentation at USCAP 2026 [VIEW](#)).**
- **Study2: - Are Brain and Retinal Biological Ages Concordant? (Submitted to AAIC 2026)**
- **Skills Gained: -** I have gained expertise in CellVit, DBScan, Survival analysis, Neural networks.

Department of Neurology, MGH, Harvard Medical School, Research Intern ([Offer Letter](#), [Scholarship Award](#))

Advisor: Dr. Sudeshna Das, Associate Professor.

- **Study:- Determining Astrocyte Transcriptomic Signature and Astrocyte-Neuron Interaction in Tauopathies using Single Cell RNA Analysis.**
- **Skills Gained:-** I have gained expertise in Seurat, Cluster profiler, Cell Chat, NicheNet, and Reactome packages in R-studio.

Department of Oncology, AIIMS New Delhi, Summer Researcher ([Lab Report](#))

Advisor: Dr. Atul Batra, Additional Professor

- **Study:-** Characterizing Variants of Uncertain Significance (VUS) in Advanced Renal Cell Cancer (RCC) patients of North India.
- **Skills Gained:-** I have gained hands on expertise with variant annotation, identifying hot spots, reclassification of variants using indigenous databases.

Department of Biomedical engineering, IISc Bangalore, Lab intern ([Lab Report](#))

Advisor:- Dr Sandeep M Eswarappa, Associate Professor

- **Study:- Inducing translational readthrough in DMD gene to treat Duchenne muscular dystrophy.**
- **Skills Gained:-** I have gained hands on expertise in performing DNA/ RNA extraction, Polymerase Chain Reaction (PCR), Agarose gel electrophoresis, Transformation (Heat and shock method), Transfection and Western blotting.

Cambridge Centre for AI in Medicine (CCAIM), University of Cambridge, London.

- **AL and ML for Healthcare Summer School (Online).**
- **Skills Gained:** Gained expertise in Clinical forecasting models (time series, predictive risk modelling), Bayesian forecasting and pharmacometrics modelling.

Department of Surgery, AIIMS Delhi.

Advisor:- Dr Suhani, Additional Professor

- **Study:- Enhancing Understanding of Robotic Surgery: Insights from Pre- and Post-Workshop Evaluation**

Outcomes: I have gained expertise in analysing data using Stata and using Python to Chi-square and Fisher's Exact test, and McNemar's Test.

Department of Nuerology, AIIMS Delhi.

Advisor:- Dr Jasmine, Assistant Professor

- **Case report 1: Late onset Encephalopathy in Sheehan Syndrome.**
- **Case report 2: Cholinesterase Inhibitor Induced Heart block requiring Pacemaker.**
Skills Gained: Comprehensive Literature Review, Manuscript writing.
- **Study: Risk of developing Primary Open Angle Glaucoma in Migraine Patients: Update to existing Systematic review and Meta analysis.**
Skills Gained: Gained expertise in screening of studies, data extraction, NOS ROB assessment.

Advisor:- Dr Mamta Bhushan Singh, Professor

- **Study: Prevalence of Headaches in Epilepsy Population: Systematic review and Meta analysis**

Department of Cardiology, AIIMS Delhi, student researcher (UGM)

Advisor:-Dr Sivasubramanian Ramakrishna, Professor

Study:- Measuring the levels of BNP (Brain Natriuretic Peptide) in infants/children with Transposition of great arteries (TGA)

Department of Biochemistry, CCMB Hyderabad, Research Intern.

- **Medical Student Research Training Programme (MedSRT) 4.0**
- **Skills Gained:-** Gained expertise in Karyotyping, Bioinformatics, Sanger sequencing, Next-generation sequencing, Optical Genome Mapping (OGM) and Variant annotation

Scholarships and Conferences:

Khorana Scholar (2023-24): Named after Nobel Laurate Har Gobind Khorana, this is one of the most prestigious scholarships in India. Every year only 8 medical students all across the country are selected for this program

MBBS/MPH Internship (2023-2024): Awarded to 20 medical students across the country, it provides an opportunity to work in India's best research labs at IISC, Bangalore

MedSRT Winter School (2023-2024): Awarded to 30 medical students from various medical colleges for hands on research training at the esteemed CCMB, Hyderabad.

UGM Fellowship: Our project on identifying NT-proBNP as a potential biomarker for early detection of TGA is awarded a grant of INR 1,50,000 (~\$2000)

NEET: I was secured a rank of 31 among 2 million students in the premedical entrance exam, which resulted in a scholarship of 1.7 Crore (~\$204,000) to cover my education in the India's top medical college - AIIMS New Delhi.

67th American Headache Conference: I presented my study finding the risk of developing POAG in migraine patients at 67th AHS, Minneapolis, USA.

Clinical Work Experience: Medical student from AIIMS, New Delhi, India

- Internal Medicine and Psychiatry (16 weeks),
- Surgery (16 weeks),
- Paediatrics (12 weeks),
- Community Medicine (12 weeks),
- Obstetrics and Gynaecology (12 weeks)

