

Anisha S Menon

PhD Scholar in Neuroscience · CSIR-CCMB, Hyderabad
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[Website](#) | [GitHub](#)

EDUCATION

CSIR – Centre for Cellular and Molecular Biology (CCMB)

Ph.D. in Neuroscience

Hyderabad, India

Jan 2023 – Present

Mentor: Dr. Ishwariya Venkatesh [[Lab Website](#)]

Thesis: Epigenetic Regulation of Axon Regeneration in the Central Nervous System

St. Joseph's College, Devagiri

Master's in Zoology — CGPA 3.79 / 4.0

Kozhikode, India

Jun 2018 – Apr 2020

(Advisor: Dr. Jisha Jacob)

Dissertation: DNA Barcoding of Oreochromis Species Using the Mitochondrial CO1 Gene

University of Calicut

Kerala, India

Bachelor's in Zoology — CGPA 5.73 / 6.0

Jun 2015 – Apr 2018

First Rank in University · Overall Grade: A+

PUBLICATIONS

- Menon, A. S., et al. *Rewiring of the three-dimensional genome encodes regenerative potential in the adult central nervous system.* (2026). [DOI](#) Under revision — Nature Communications.
- Kumaran, M., Menon, A. S., et al. *Deep Neurite Analysis Tool (DeNAT): A machine-learning framework for precise automated neurite outgrowth measurement.* (2025). [DOI](#) Under revision — BMC Bioinformatics.
- Krishna, N., Menon, A. S., et al. *PATZ1 remodels the nucleosome landscape to promote chromatin accessibility in injured neurons.* (2025). [DOI](#) Under revision — Communications Biology.
- Sahu, Y., ... Menon, A. S., et al. *Nuclear Receptor Transcription Factors promote axon regeneration in the adult corticospinal tract.* (2025). [DOI](#) Under revision — EMBO Journal.
- Menon, A. S., et al. *PATZ1 reinstates a growth-permissive chromatin landscape in adult corticospinal neurons after injury.* (2025). [DOI](#) Under revision — Genome Biology.
- Menon, A. S., et al. *DNA Barcoding of Fish Fauna using the Mitochondrial CO1 Gene.* Mapana Journal of Sciences (2024), 23(1), 133–147.

TECHNICAL SKILLS & SCIENCE COMMUNICATION

- Rodent Microsurgeries:** Thoracic spinal cord crush, intra-cortical brain injury, stereotaxic injections, anterograde and retrograde tracing, pyramidotomy, perfusion, motor cortex isolation
- Single-cell & Epigenomic Assays:** snRNA-seq, snATAC-seq, Cut&Run sequencing, Hi-C, Bulk RNA, Bulk ATAC
- Molecular Biology:** PCR, molecular cloning, DNA/RNA/cDNA isolation, immunohistochemistry (IHC), flow cytometry, mammalian cell culture
- Bioinformatics:** Analysis of snRNA-seq, snATAC-seq, Cut&Run and Hi-C datasets in R and Python
- Instrumentation:** Confocal (Zeiss) and Apotome (Zeiss) microscopy; stereotaxic frame; Vibratome (Leica); Cryotome; 10x Genomics Chromium Controller; Illumina library-prep workflows
- Software & Tools:** R, Python, ArchR, Seurat, Cell Ranger, GraphPad Prism, ImageJ / Fiji, UCSC Genome Browser, IGV, FastQC, Bash
- Organisational & Transferable:** SOP development and protocol optimisation; mentoring and training of students and interns (2 Master's student, 5 summer trainees, 2 project trainees); data interpretation, presentation and stakeholder communication
- Science Communication & Outreach:** Author for CCMB's SciTales popular-science platform; organiser and volunteer for CCMB Open Day (2023, 2024, 2025) and One Week One Lab (OWOL, 2022)
 - [A Trail of Neurons: Finding New Connections for the Brain to Adapt and Recover](#)
 - [Will Neurons Grow Through What They Go Through?](#)
 - [From Concept to Creation: Lab Members Build Personal Websites](#)

HONORS, AWARDS & CONFERENCE PRESENTATIONS

Awards & Honors

- **Best Poster Award** — Cellular & Molecular Mechanisms of Development and Regeneration, CMMDR Conference (2026)
- **Best Poster Award** — Cellular & Molecular Mechanisms of Development and Regeneration, CMMDR Conference (2024)
- **Best Poster Award** — Indian Academy of Neuroscience, IAN (2023)
- **All India Rank 6** — Joint CSIR-UGC NET Fellowship (2022)
- **First Rank in University** — B.Sc. Zoology, University of Calicut (2018)

Conferences & Poster Presentations

- Cellular & Molecular Mechanisms of Development and Regeneration (**CMMDR**), 2026 — Poster Presentation
- Indian Academy of Neuroscience (**IAN**), 2025 — Poster Presentation
- Society for Neurochemistry (**SNCI**) Conference, 2025 — Poster Presentation
- Hyderabad Science Conference (**HySci**), 2024 — Poster Presentation
- Indian Academy of Neuroscience (**IAN**), 2024 — Poster Presentation
- Cellular & Molecular Mechanisms of Development and Regeneration (**CMMDR**), 2024 — Poster Presentation
- Indian Academy of Neuroscience (**IAN**), 2023 — Poster Presentation
- Hyderabad Science Conference (**HySci**), 2023 — Attended

REFERENCES

Dr. Ishwariya Venkatesh

Scientist-D (PhD Mentor)
CSIR-CCMB, Hyderabad, India
Email: ishwariya.ccmb@csir.res.in

Dr. Janesh Kumar

Scientist-F
CSIR-CCMB, Hyderabad, India
Email: janesh@ccmb.res.in

Dr. Anindya Ghosh

Scientist-VI & Professor
National Brain Research Centre (NBRC), Manesar, India
Email: anindya@nbrc.ac.in

Dr. Karthik Bharadwaj Tallapaka

Scientist-D
CSIR-CCMB, Hyderabad, India
Email : karthikt@ccmb.res.in