



ABOUT ME

I am a highly motivated and driven PhD scholar at CSIR CCMB, in the lab of Dr. Ishwariya Venkatesh's lab. My primary research interest lies in the intersection of Epigenetics and Neuroscience, a field I am deeply passionate about. Currently, I am tackling the problem of failed regeneration in CNS neurons following injuries, through the lens of epigenetic regulation. Outside the lab, I enjoy writing and drawing, which allow me to express my creativity and unwind.

ANISHA S MENON

Phd Scholar | CSIR-CCMB

EDUCATION

Ph.D in Neuroscience

CSIR-CCMB | 2022 – Present

- Bachelor's in Zoology at Vimala College, Thrissur, Kerala. (2018)
 - Obtained First Rank from University of Calicut
- Masters in Zoology at St Joseph's College Kozhikode, Kerala. (2020)

KEY SKILLS

- Molecular Cloning Techniques
- Genomics (Single Cell RNA-Seq and ATAC-Seq, Bulk ATAC-Seq, Hi-C, Cut & Run Seq)
- Small Rodent Surgeries
- Bioinformatics data analysis using R
- Flow Cytometry
- Mammalian Cell Culture

AWARDS & ACHIEVEMENTS

- Best Poster Award at Indian Academy of Neuroscience (IAN) meeting - 2023
- Best Poster at Cellular and Molecular Mechanisms of Development and Regeneration (CMMDR) meeting - 2024
- All India 6th Rank at Joint CSIR-UGC Examination - 2022

CONTACT

- 📞 9946340473
- ✉ anisha@ccmb.res.in
- 🌐 venkateshlab.science/team

Ph.D PROJECT OVERVIEW

The bundle axons that transmit signals between the brain and body is critical for normal nervous system function. Injury disrupts this communication, necessitating precise transcriptional control for regeneration. While transcription factors (TFs) are essential for gene activation, relaxed chromatin around pro-growth loci is also crucial. Genome-wide remodelling attempts have been ineffective, so our focus is on targeted remodelling using novel 'stripe factors,' which alter DNA accessibility in regeneration-competent neurons. We are testing the effects of stripe factor overexpression on chromatin changes in injured CNS neurons using sn-ATAC sequencing. Our research aims to uncover new molecular mechanisms for nervous system development and regeneration, potentially leading to targeted therapeutic strategies for neural repair.

Publications

- **Menon, A. S., et al** (2024). DNA Barcoding of Fish Fauna using Mitochondrial CO1 Gene. *Mapana Journal of Sciences*, 23(1), 133-147.

Poster Presentations

- Indian Academy of Neuroscience, 2023
- Cellular and Molecular Mechanisms of Development and Regeneration Conference, 2024
- Hyderabad Science Conference, 2024