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[Medium](#)
[Google Scholar](#)

Neurodegeneration

Dopaminergic Pathways

Epigenetics

Behaviour

ABOUT

I've spent most of my life wondering, "Why did I do that?" For a long time, I thought the answers were in psychology, then neuroscience, then molecular biology, and finally epigenetics. But I've come to realize that what I truly enjoy is the pursuit itself—exploring truths from different perspectives and finding answers from all angles. I transitioned from Homoeopathy & Medicine to neuroscience out of a passion for understanding the brain. Homoeopathy and Medicine have shaped my unique perspective, enriching how I approach neuroscience and its exploration of the mind and behavior through biology and psychology.

OBJECTIVE

To spend the next few years working on Molecular Neuroscience, especially Epigenetics, and Artificial intelligence.
Hoping to run my own research lab someday!

EDUCATION

Master of Science in Biomedical Science [Current CGPA: 8.85] Nitte University Centre for Science Education & Research, Deralakatte	2024-2026
Bachelor of Homoeopathic Medicine and Surgery Fr Muller Homeopathic Medical college & Hospital, Mangalore	2013-2019
Pre University- Science (Physics, Chemistry, Math, Biology) St. Aloysius PU, Mangalore	2011- 2013

MASTER'S THESIS

Effects of *tprkb* deficiency on the expression of neuronal transcription factors in zebrafish. (ongoing)

Under the guidance of Dr. Gunimala Chakraborty, HOD & Associate Professor
Dept. of Molecular genetics & Cancer.

Through this project we are expecting to Generate stable *tprkb* mutants using CRISPR-Cas9, confirmed via HRMA and HD assays. The Phenotypic analysis may reveal developmental anomalies similar to those in GAMOS. Altered expression of neuronal transcription factors is assessed by WISH and validated through RNA-based analysis. The techniques involve CRISPR-Cas9, HRMA, HD assay, 28-point developmental screening, WISH, RNA extraction, cDNA synthesis.

INTERSHIPS

RESEARCH INTERN (Manipal School of Lifesciences) Department of Public Health Genomics

June 2025– July 2025

Techniques learnt: qPCR, electrophoresis, Mammalian cell culture, DNA & RNA extraction, cDNA synthesis, Western blotting, Bradford Assay, Glutathione Assay, Immunohistochemistry, Primer dilution, Masson's Trichrome staining, Mitochondrial staining.

Instruments: Fluorescent microscope, Nano-spectrophotometer, Gel documentation system, Stereo microscope, Cold centrifuge.

BACHELOR'S DISSERTATION

Assessment of treatment outcome in eczema with homoeopathic constitutional medicine using SCORAD.

Under the guidance of Dr. Vilma D'souza, BHMS, MD(Hom), MS (Counselling & Psychotherapy) HOD & Prof. Dept. Of Obstetrics & Gynaecology| May 2019

A case study of 25 individuals with eczema was conducted to assess the efficacy of homoeopathic constitutional medicine in potentized form. The patients were assessed using the SCORAD tool before and after treatment, and the results showed a significance of 0.006. Out of the 25 cases, 22 showed very good improvement in their SCORAD values, while 3 showed no improvement. The conclusion of the study is that homoeopathic constitutional medicine is effective in treating various forms of eczema.

PROJECTS

Measure Chronotype [🔗](#)

A 19-question Morningness-Eveningness Questionnaire (MEQ) to determine sleep chronotype, aiding in better scheduling and identifying potential sleep disorders.

Consultant for the app, providing input on chronotype categorization and health risks, conducting research, and collaborating on user experience design.

Neuro Navigator [🔗](#)

Designed an interactive GitHub game exploring the functions of place cells within the hippocampus, providing users with a hands-on insight into its role in cognitive processes and spatial navigation.

Temporal Binding Game [🔗](#)

Developed an interactive game centered on the concept of temporal binding, challenging players to discern and link events based on perceived temporal connections and causally related occurrences, while evaluating the time required to recognize or differentiate such bindings.

Flash Lag Illusion [🔗](#)

Analyzed the Flash-Lag Illusion, inspired by David Eagleman, to study motion perception and highlight the nuances and constraints of our visual system in neuroscience.

Motion After Effect

Co-developed an interactive demonstration of the Motion After-Effect illusion, showcasing how prolonged exposure to a specific motion impacts neural responses, leading to perceived motion in static objects due to neural adaptation.

CERTIFICATIONS

Neuroscience of Human Movements

Prof. Varadhan, *IIT Madras*

Brief Introduction to Psychology

Prof. Braj Bhushan, *IIT Kanpur*

Introduction to Basic Cognitive Processes

Prof. Ark Verma, *IIT Kanpur*

Neurobiology

Prof. Nitin Gupta, *IIT Kanpur*

Molecular Biology

Prof. Vishal Trivedi, *IIT Guwahati*

WORK EXPERIENCE

PHYSIOLOGY LECTURER (Visiting Faculty)

Dec 2023- Jun 2024

Niramaya College of Nursing & Allied Health Sciences

Instructing first-year bachelor's students in physiology, adhering to educational standards. Employed various teaching methodologies, including those inspired by Fiorella and Mayer, to enhance comprehension.

CHIEF PHYSICIAN (Self-Employed)

Feb, 2020 – Nov, 2023

Dr Rao's Homeopathic Clinic, Katapadi- Udupi.

Along with medical care, I promote holistic wellness through lifestyle counseling, including dietetics, nutrition, exercise, counseling and psychology.

By providing comprehensive care that addresses physical, mental, and emotional well-being, I help patients achieve optimal health and quality of life.

BIOLOGY TEACHER

Apr, 2020 - Mar, 2023

Avishkar Academy, Kodialbail-Mangalore.

Catering to students interested in understanding biology within broader scientific contexts.

ASSISTANT PHYSICIAN

Nov, 2019 - Jan,2020

BR Shetty Mother & Child Hospital, Udupi

Actively involved in providing comprehensive care during pregnancy, childbirth, and postpartum, including management of various health conditions that arise during this time.

Promoting women's hygiene and awareness about menopause.

Providing education and support to help women maintain good hygiene practices and understand the changes that occur during menopause, including the potential for associated health risks.

SKILLS

Wet Laboratory techniques: PCR & qPCR,

Western Blot, Nanospectrophotometry,

DNA/RNA Extraction, cDNA Synthesis, WISH,

Flow Cytometry

Clinical Interpretation & Medical Diagnosis

NGS Data Analysis

Molecular Docking

Latex (Overleaf), JAMOV

Python & HTML

Digital Art and Scientific Diagrams

CONFERENCES

IMMUNE BIOLOGY & PRECISION MEDICINE: DECIPHERING CROSS-TALKS THROUGH MULTI-OMICS

Organized by NITTE(Deemed to be University) at NUCSER, 19-20th March 2025

CANCER EPIGENETICS: FROM LABORATORY STUDIES TO PRECISION MEDICINE

Organized by Manipal School of Life Science, 22-23rd Jan 2025

UTILIZING MICROBIOME & GENOMIC RESOURCES FOR UNDERSTANDING & MITIGATING ANTIMICROBIAL RESISTANCE IN ONE HEALTH CONTEXT

Organized by FAO reference Centre for Antimicrobial Resistance & Aquaculture Biosecurity, Nov 2024

MULTI-OMICS APPROACHES IN UNDERSTANDING ENVIRONMENTAL & LIFESTYLE INFLUENCES ON HEALTH

Organised by NITTE(Deemed to be University) at NUCSER, Oct 2024

CELL THERAPY CONCLAVE

Organised by Manipal Centre for Biotherapeutics Research & Consultancy & Entrepreneur Research Vertical, Oct 2024

WEBINARS & WORKSHOPS

STRATEGIES TO ENHANCE PHONEMIC AWARENESS IN CHILDREN

Mrs Balasaraswathy Nair, Organized by Eblity, Jan 2025

AI FOR NEURO: HOW MODERN AI TECHNOLOGIES ENABLE ADVANCES IN NEUROSCIENCE

Chen Institute for Neuroscience at Caltech, Dec 2024

NASA'S OPEN SCIENCE 101 CURRICULUM

Organized by Neuromatch X NASA- National Aeronautics and Space Administration, Nov 2024

FRAMEWORK OF UNDERSTANDING CHILD DEVELOPMENT

Ms Rita Gendelman, Organized by Eblity, Feb 2023

ADHD

Dr. Sudipti Roy, Organized by Eblity, May 2022

UNDERSTANDING ADHD IN CLASSROOMS, AT HOME & IN OTHER SOCIAL SETTINGS

Ms. Shivani Wadhwa, Organized by Eblity, May 2022

HOW TO TEACH STUDENTS WITH DIFFERENT CHALLENGES IN CLASSROOM SETTING

Ms. Tobiloba Ajayi, Organized by Eblity, May 2022

INTERESTS

Singing

Electronic Keyboard

Gardening & Foraging

Fashion Designing

Botany

Physics

Writing

Blogs, Poems & Proses,
Essays, Articles.

Research

Philosophy

Oration

EXTRA CURRICULARS

Singing - Won several Intercollegiate competitions

Debating - Won several Intercollegiate competitions

Green Brigadier

Member of the College Magazine Editorial and Design Board

LANGUAGE SKILLS

English

Fluent - C1 (IELTS)

Kannada

Mother tongue

Hindi

Native

Tulu

Native

Urdu

Native

Malayalam

Conversational

French

Basic (Or you can say, just enough to sing 'Aux Champs Élysées')