



Indian Institute of Technology Madras

Department of Biotechnology

Bhupat and Jyoti Mehta School of Biosciences

IIT Madras, Chennai – 600 036, India

MS (by Research) admissions July 2024

List of available MS (by Research) Project titles

1) CB- Computational Biology Stream

Faculty Name	No of vacancies	Project titles
Michael Gromiha	1	Comparative analysis of disease causing mutations and binding affinity change in the interface of biomolecular complexes
Karthik Raman	1	Drug discovery: Identifying drug repurposing strategies using knowledge graphs Synthetic biology: ML and model-driven approaches to design biological circuits
Meiyappan Lakshmanan	1	Large-scale computational analysis of multi-omics data for alternative promoters and enhancers usage in disease and biomanufacturing
Himanshu Sinha	2	Genome graph analysis of 10K GenomeIndia data; Risk modelling of preterm birth risk using GARBH-Ini data
V Srinivasa Chakravarthy	2	1) Building a virtual assistant for Alzheimer's patient; 2) building electronic circuit models of oscillatory networks

2) BS- Biological Sciences Stream

Faculty Name	No of vacancies	Project titles
R. Baskar	1	A study on the role of neurotransmitter like molecules in plant leaf movement
Nitish Mahapatra	1	Molecular mechanisms of regulation of candidate genes underlying cardiovascular disease



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3) BE- Biological Engineering Stream

Faculty Name	No of vacancies	Project titles
Richa Karmakar	1	Computational analysis of cell-cell interaction during chemotaxis
Guhan Jayaraman	1	Metabolic Engineering for conversion of lignocellulosics to value-added chemicals
Shantanu Pradhan	1	Gelatin-based granular hydrogels for tissue engineering applications
M. Hamsa Priya	1	Elucidating the molecular transport across peptidoglycan matrix
Meiyappan Lakshmanan	1	Systematic development of cell culture process for protein therapeutic biomanufacturing
Smita Srivastava	1	Strategies to improve azadirachtin (a biopesticide) production in stem cell culture of <i>Azadirachta indica</i>