



Immadi Siva Ratnakar

pursuing PhD
Friedrich Miescher
Institute

Explores Protein-Protein
interactions



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Basel, 4058

Education

* Graduation, Sri Sathya Sai Institute of Higher Learning,
2020-2022

Masters in Bioscience, cGPA: 8.4

* Under graduation, Sri Sathya Sai Institute of Higher
Learning, 2017-2020

B.Sc. Hons. in Bioscience, Minors in Chemistry, cGPA: 7.9

*High Schooling, St. Andrews School, 2015-2017

Biology, Physics, Chemistry, Informatics, 92% marks

Experience

Junior Research Fellow, Indian Institute of Science

(June 2022-Sep 2023) Structural and Inhibition Studies on Mycobacterial
Topoisomerase and DNA Gyrase.

Techniques: Cloning, Protein purification, Protein characterization
assays, Immuno-pulldown, Mass spectroscopy, Cryo-EM

Masters projects at Sri Sathya Sai Institute of Higher Learning

(Apr 2021-May 2022) Genomic analysis of Fosfomycin
resistance-conferring genes in Escherichia coli

Techniques: Screening clinical isolates for antibiotic resistance,
Genome annotation and characterization, PCR, in silico Protein
docking.

(Jun 2020-Feb 2021) Identification of therapeutics from fungal

metabolites for their application in combinatorial antibiotic therapy

Techniques: Building ligand library, Homology modelling, Molecular
docking and Molecular dynamic simulation.

Traineeship at Acclin Path labs

(Mar 2020-May 2020) Screening clinical isolates for various
disease markers including SARS-Cov2, HIV

Technique: ELISA

Bachelors projects at Sri Sathya Sai Institute of Higher Learning

Role of ADA in Osteoclast differentiation

Techniques: Animal Cell Culture, qPCR

A preliminary report on the Avifauna of the Brindavan Campus

Bird watching and species identification to make a checklist of the bird
species and prepare a book on the diversity of the campus.

Publications

Santoshi et al., 2023. Identification and characterization of a new HNH
restriction endonuclease with unusual properties. Applied Microbiology
and Biotechnology, pp.1-13.

Ratnakar, I.S., 2022. Phage Therapy: Challenges and Opportunities.
Fine Focus, 8(1), pp.12-35.

Awards

* Qualified CSIR-NET JRF examination, 2022 with an All-India Rank of 142.

* Gold Medal from the Sri Sathya Sai Institute of Higher Learning for
academic excellence in the Master's program.

* Qualified the Graduate Aptitude Test in Engineering, 2022, 2023.