



Name: Rinki Sisodia

Research Group & Mentor: Structural and Molecular Biology laboratory; Dr Chaithanya Madhurantakam

Research Work/Project(s):

I am Rinki Sisodia, a dedicated research scholar with expertise in structural and molecular biology, focusing on combating antibiotic resistance in bacterial pathogens. My Ph.D. research explored critical enzymes in *Helicobacter pylori* and *Mycobacterium tuberculosis*, employing advanced techniques like X-ray crystallography, molecular dynamics simulations, and *in-silico* modeling to identify promising small-molecule inhibitors. I have extensive experience in recombinant protein expression, purification, enzyme assays, and computational modeling, coupled with hands-on proficiency in cryo-electron microscopy and spatial proteomics. My work has resulted in impactful findings that pave the way for innovative therapeutic strategies against antibiotic-resistant infections.

Fellowship Holder/Designation: CSIR-SRF

Additional Information:

Research Publications:

1. *In silico* identification and analysis of potential inhibitors for acid phosphatase, HppA from *Helicobacter pylori*, J. Mol. Recognit., 2023, 10.1002/jmr.3049
2. Molecular analysis of dUTPase of *Helicobacter pylori* for identification of novel inhibitors using *in silico* studies, J. Biomol. Struct. Dyn., 2023, 10.1080/07391102.2023.2247080
3. *In silico* analysis and characterization of potential inhibitors of MmaA3, a methoxy mycolic acid synthase from *Mycobacterium tuberculosis*, J. Biomol. Struct. Dyn., 2024, 10.1080/07391102.2024.2349545
4. Multiple combinatorial interactions among natural structural variants of *Brassica* SOC1 promoters and SVP: Conservation of binding affinity despite diversity in bimolecular interactions, *Mol Biol Rep.*, 2024, *In press*