

Student Internship Scheme – 2024
Cluster Innovation Centre

Project Title: Investigating the Therapeutic Potential of Histone-Derived Antimicrobial Peptides (Amps) of Chicken and Archaeobacteria

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Mentor: Dr. J. S. Purohit, Associate Professor

Abstract:

During my internship, I engaged in a comprehensive research project aimed at discovering and characterizing the antimicrobial potential of histone-derived peptides using computational approaches. My work involved the in-silico digestion of histones to generate a library of peptides, followed by the characterization of their biophysical properties. I conducted molecular docking studies to evaluate the interactions between these peptides and pathogenic bacterial proteins, focusing on both Gram-positive and Gram-negative bacteria. My findings identified several promising peptide candidates with strong antimicrobial properties. This internship provided me with valuable experience in computational biology, molecular modelling, and the development of innovative strategies to combat antibiotic-resistant bacteria, contributing to my growth as a researcher in the field of antimicrobial therapeutics.