

Profile of Research Supervisor (Guide): Dr. Manmohan Singh Bengaluru City University

Discipline of Supervision: Microbiology



Dr. Vemula Vani

Associate Professor

Department of Microbiology

Areas of Specialisation: Drug discovery, Molecular Modelling and Biotechnology

Dr. Vemula Vani earned her Ph.D. in Biotechnology from Anna University, Chennai, in 2011. She also holds an M.Tech. in Biotechnology from Anna University and a B.Pharm. degree from Osmania University, Hyderabad. Her research interests include drug discovery, molecular modelling, structure-based drug design, and computational approaches for developing therapeutics against infectious diseases. During her doctoral studies, she designed and developed small molecules that mimic the CD40 ligand, contributing significantly to immunomodulatory drug discovery. She continues to focus on identifying novel small-molecule therapeutics for infectious diseases using computational techniques. Dr. Vani has published more than 20 research papers in reputed national and international journals and has received four Best Presentation Awards at academic conferences. She successfully completed two internal seed-money research projects at M. S. Ramaiah College of Arts, Science and Commerce during 2020–2023 and 2024–2026. With over 21 years of teaching experience, she has taught undergraduate and postgraduate courses in Biotechnology and Biological Sciences and actively mentors students, fostering innovation, research excellence, and scientific inquiry.

Google Scholar link:

<https://scholar.google.com/citations?user=J5jdIYcAAAAJ&hl=en&oi=ao>

Selected Publications:

1. **Vemula Vani** , Sanjay Prasad , Nikita Paul , Nithya G , Pooja N , Pooja V, Manikandan Alagumuthu, Discovering active chemotherapeutic agents for sexually transmitted diseases to inhibit pathogenic HPV- 16- E6 Protein, Current Drug discovery technologies, 2025, Vol.22, No. 4, 172- 180. <https://doi.org/10.2174/0115701638336294250109052352>
2. **Vemula Vani** , Snehalatha V , Rachel Nishitha , Hima S , Arpitha B Hegde , Manikandan Alagumuthu, *In silico* analysis of natural inhibitors against HPV E6 protein, current computer aided drug design, 2024, 20(3), 303-311. <https://doi.org/10.2174/1573409919666230310144550>
3. **Vemula Vani** , Amarnath Satheesh Marudamuthu , Sanjay Prasad , Suman B M , Mamatha S E , Swathi A , Priyanka Seal , Manikandan Alagumuthu, Fragment-based design and MD simulations of Human Papilloma Virus-16 E6 protein inhibitors, submitted to journal of biomolecular structure and dynamics, 2023, 4 (7) 1-10 <https://doi.org/10.1080/07391102.2023.2203775>