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Research Interest
Structural Bioinformatics and Drug Discovery,
Translation regulation,
Host-pathogen interactions

Research Summary & Highlights

I am a life sciences researcher and academician with a PhD specializing in the structural and mechanistic aspects of ribosome-inactivating proteins. I have published extensively in international peer-reviewed journals and possess strong expertise in molecular docking, molecular dynamics simulations, and bioinformatics. I actively promote research training, academic mentoring, and international scientific collaboration through conferences, scholarly initiatives, and capacity-building programs.

Education

2021-2025	PhD in Structural Bioinformatics and Computational Biology from National Institute of Technology, Warangal. **Thesis**: Mechanistic Insights into Synergistic regulation of Eukaryotic translation by Ribosome-inactivating Proteins and Alpha Kinases.
2015-2017	M.Sc. in **Biochemistry**, Osmania University, Hyderabad, India.
2012-2015	B.Sc. in **Microbiology, Genetics and Chemistry**, Osmania University, Hyderabad, India.

Experience

15-09-2025 - Present	Assistant Professor, Malla Reddy University, Hyderabad, Telangana, India.
05-06-2017 - 31-12-2020	NEET Biology Expert, EXCEL Education Services, Hyderabad, Telangana, India.

Selected Publications (Papers:8, Citations: 11, h-index: 2)

1. **Madasu, P. K**., & Chandran, T. (2024). In silico structural and mechanistic sights into the N-glycosidase mechanism of Shiga toxin. *Archives of Toxicology*. Link (SCI/Q1/6.9)
2. **Madasu, P. K.**, & Chandran, T.* (2024). Structural insights into the toxicity of type II ribosome inactivating proteins (RIPs): a molecular dynamics study. *Journal of Biomolecular Structure and Dynamics*. Link (SCI/Q1/2.4)
3. Kizhakedathil, M. P. J., **Madasu, P. K.**, Chandran, T.,* & Vijaykumar, S. D.* (2024). In-silico structural studies on anti-inflammatory activity of phytocompounds from the genus Andrographis. *Journal of Biomolecular Structure and Dynamics*, *42*(13), 6543–6555. (Co-first author) Link (SCI/Q1/5.2)
4. **Madasu, P. K.**, Maity, A., Ghosh, S. K., & Chandran, T.* (2023). Insights into the microevolution of SARS-ACE2 interactions: in silico analysis of glycosylation and SNP pattern. *Journal of Biomolecular Structure and Dynamics*, *41*(13), 6442–6449. Link (SCI/Q1/6.2)
5. **Madasu, P. K.**, Maity, A., Patra, D., & Chandran, T.* (2023). Betacoronaviral lectins: Identification through a genomic search—A structural and evolutionary biology perspective. *Journal of Carbohydrate Chemistry*, *42*(1–3), 112–134. Link (SCI/Q2/2.2)

Grants, Certifications, Awards & Honors

2024	Telangana Academy of Sciences - Young Scientist Award (Nominated)
2024	Anusandhan National Research Foundation – International Travel Grant
2024	Dept. of Biotechnology (DBT) – CTEP Travel Grant.
2024	Asian Crystallographic Association Travel Support Grant.
2017	University Fourth Rank Holder (among all the affilitated colleges)
2015	B.Sc. Lifesciences First Rank Holder among 104 students
2014-15	Nizam Scholars Scholarship Award.
2013-14	Nizam Scholars Scholarship Award.