


Detailed Bio Data

Name of the faculty	Dr. Ashalatha Sreshty Mamidi		
Designation	Assistant Professor		
Department	Biology		
Date of Joining the Institute	23 rd August 2018		
University / Institute	UG	PG	Ph.D. (Title)
	Dr. V.S. Krishna College, Visakhapatnam	Andhra University	Development of synergistic combinations of <i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> and <i>B. sphaericus</i> for mosquito management
Total Experience in years (Post Ph.D)	Teaching	Research	Industry
	6 Months	7 years	Nil
Paper Published	National		International
	1		8
Conference Attended	National		International
	10		1
Details of Research work/Area	Computational Biology and Bioinformatics integrating with statistics, mathematics using computational and quantitative methods: Structure based drug designing, Drug-target discovery, glycoinformatics, Proteochemometrics, Computational Systems Biology, Machine learning applications, Molecular Dynamics Simulations, Metadynamics, Network Analysis, Circular statistics, NGS and Microarray Data analytics		
Book Published/IPRS/Patents	Combination therapy of drugs against <i>Mycobacterium Tuberculosis</i> Patent Filed (under process)		
Professional Membership	<ol style="list-style-type: none"> 1) Association for the promotion of DNA Fingerprinting and other DNA Technologies (ADNAT), Membership No. L-878. 2) Society of Biological Chemists, Indian Institute of Science, Bangalore (R No: 4903) 3) International Society of Computational Biology (Membership ID: 3077) 		
Awards	1) Young Scientist Project under Fast Track Scheme, (Funding approved), Department of Science and Technology, New Delhi, Govt. of India.		

	<ol style="list-style-type: none"> 2) CTEP grant for International Travel, Department of Biotechnology (DBT) (2015), New Delhi, Govt. of India. 3) International Travel Fellowship, Department of Science and Technology (DST) (2015), New Delhi, Govt. of India. 4) Travel Fellowship, Centre for International Co-Operation in Science (CICS) (2015), Chennai, Govt. of India. 5) Dr. D.S.Kothari Post-Doctoral Fellowship Award (2012-2015), University Grants Commission, New Delhi, India, Govt. of India. 6) Research Associate Fellowship in Biotechnology and Life Sciences (2011), Department of Biotechnology, New Delhi, Govt. of India. 7) 2nd prize for Best Business Plan, Fourth Training Programme on Technology Led Entrepreneurship conducted by Council of Scientific and Industrial Research (CSIR), New Delhi and Indian Institute of Management (IIM), Bangalore (2007). 8) Joint CSIR-UGC Senior Research Fellowship Award (2006-2009), Govt. of India. 9) Joint CSIR-UGC Junior Research Fellowship Award (2004-2006), Govt. of India. 10) Awarded General Aptitude Test in Engineering (GATE), Bangalore, Govt. of India.
Grants Fetched	<ol style="list-style-type: none"> 1) Ashalatha Sreshty M. (Principal Investigator) (2016 – 2019) Mathematical modelling and circular statistics analysis of dihedral torsion angles of N-glycans and lectins reveal the conformational dynamics underlying biomolecular signalling and recognition. SERB, DST, Govt of India. 2) Ashalatha Sreshty M. (Post Doctoral Fellow) 2012 – 2015 Structural and functional characterization of malonyl CoA: ACP transacylase in <i>Plasmodium falciparum</i> to study its suitability as potential antimalarial drug target. UGC under Dr. D. S. Kothari Post Doctoral Fellowship Scheme.
Contact Information (Email)	Assistant Professor Faculty of Biology Indian Institute of Petroleum & Energy Visakhapatnam Email: alsm.biology@iipe.ac.in

List of Publications:

- 1) Mishra A., **Mamidi. A.S.**, Rajmani. R.S., Ray. A., Roy. R., Surolia. A. (2018). An allosteric inhibitor of *Mycobacterium tuberculosis* ArgJ: Implications to a novel combinatorial therapy. EMBO Mol Med. 10(4). e8038.
- 2) Jha. N.S., Mishra. S., **Mamidi. A.S.**, Mishra. A., Jha. S.K. and Surolia. A. (2016). Targeting Human Telomeric G- Quadruplexes DNA with curcumin and its synthesized analogues under molecular crowding condition. RSC Advances, 6, 7474-7487.

- 3) **Mamidi. A.S.**, Arora. P., Surolia. A. (2015). Multivariate PLS Modeling of Apicomplexan FabD-Ligand Interaction Space for Mapping Target-Specific Chemical Space and Pharmacophore Fingerprints. PLoS ONE, 10(11), e0141674.
- 4) **Mamidi. A. S.**, Surolia. A. (2015). Hierarchical sampling for metastable conformers determines biomolecular recognition: the case of malectin and diglycosylated N-glycan interactions, Journal of Biomolecular Structure and Dynamics, 33(6) 1363-1384.
- 5) **Sreshty, M. A. L.**, Surolia, A., Sastry, G. N. and Murty, U. S. (2012). Deorphanization of Malonyl CoA:ACP Transacylase Drug Target in *Plasmodium falciparum* (PfFabD) Using Bacterial Antagonists: A Piggyback Approach for Antimalarial Drug Discovery. Molecular Informatics, 31, 281–299.
- 6) **Sreshty, M.A.**, Kumar, K. P. and Murty, U.S.N. (2011). Synergism between wild-type *Bacillus thuringiensis* subsp. *israelensis* and *B. sphaericus* strains: A study based on isobolographic analysis and histopathology, Acta Tropica, 118 (1), 14-20.
- 7) **Sreshty, M.A.**, Misra, M. and Murty, U.S.N. (2010) Interpreting the SDS-PAGE protein patterns with self-organizing maps: application for the characterization of mosquito-pathogenic *Bacillus* strains, Journal of Applied Microbiology, 110, 243-249.

Book Chapters

- 1) Grandhi N., **Mamidi A. S.** and Surolia, A., Pattern recognition in legume lectins to extrapolate amino acid variability to sugar specificity, Advances in experimental Medicine and Biology, Springer, 2015, 842, 199-215.
- 2) **Sreshty, M. A.**, Chourasia, M., Murty, U.S.N. and Sastry, G.N. (2008). Homology modeling and inhibitor based active site validation of *P. falciparum* Malonyl COA: ACP transacylase. In: Vector Borne Diseases: Epidemiology and Control (ed.) Tyagi, B.K. pp. 13-22, Scientific Publishers, India.

Conference Papers

- 1) Sreshty, MA and Surolia A (2015). Exploring conformational dynamics of biomolecular recognition via hierarchical sampling approach. Albany 2015: The 19th Conversation conducted at State University of Albany, New York during 10th – 13th June, 2015.
- 2) Sreshty, MA and Murthy USN (2009). Development of Sustained Release Floatable Formulations using *Bacillus thuringiensis* subsp *israelensis* and *B. Sphaericus* in Synergistic Combinations for Mosquito Control. Implications of Climate change on mosquito borne diseases and its impact on public health conducted by Sir Ronald Ross Institute of Parasitology, Osmania University during 20th – 21st, August, 2009.
- 3) Sreshty, MA, Murthy USN (2007). A Comparative bioevaluation of *Bacillus thuringiensis* subsp *israelensis* and *B. Sphaericus* against *Aedes aegypti* and *Culex quinquefasciatus* mosquito larvae. National Conference on Applied Zoology and Sustainable Development. Conducted by Indian Institute of Chemical Technology, Hyderabad during 13th to 15th July, 2007.

- 4) Sreshty, MA, Chourasia M, Murthy USN and Sastry, GN (2006). Homology modeling and inhibitor based active site validation of *P. falciparum* Malonyl COA: ACP transacylase. 8th International Symposium on Vector and VectorBorne Diseases. Conducted by Centre for Research in Medical Entomology, Madurai during 12th to 14th August, 2006.
- 5) Sreshty, MA, Kumar KK and Murthy USN. (2006). *In silico* indentification of Major Indian Anopheline Vectors. Recent Advances in Biotechnology and Bioinformatics. Conducted by Osmania University, Hyderabad during 24th to 26th July, 2006