

Auxilium College (Autonomous), Vellore, Vellore District
(Accredited by NAAC with A⁺ Grade with a CGPA of 3.55 in the 3rd Cycle)

Dr. V S Gowri is currently a Project Scientist-I at the Department of Chemistry working on the broad area of Computer-aided drug designing. She graduated M.Sc. Chemistry from Bharathidasan University in 2001, earned her PhD from Molecular Biophysics Unit, Indian Institute of Science, Bangalore in 2008. She has a broad postdoctoral experience at various research institutes as a visiting fellow at NCBS (A TIFR unit of Biological Sciences), Bangalore to a UGC-Kothari fellow at Jawaharlal Nehru University, Delhi. She has 5 Years of teaching experience. She is a recipient of “Young Women Scientist” Award from the Nature Science Foundation, Coimbatore.



Name : **Dr. V S GOWRI**

Designation : **Project Scientist – I
(DST-Women Scientist A)**

Qualification : **M.Sc., Ph.D**

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Teaching Experience : **5 Years**

Area of Specialization : **Computational Structural Biology,
Bioinformatics, Computer-aided-drug design**

Positions held : **Member, IQAC (2019-20)
Member, UGC-PARAMARSH (2021-2023)**

Research Experience and Guidance : **(2009-2010)- 1 Year as Visiting Fellow,
NCBS-TIFR, Bangalore.
(2011-2012) -1 Year as DBT-COE
Postdoctoral Fellow Jawaharlal Nehru
University, New Delhi.
(2012-2015) - 3Years as UGC-Kothari
Postdoctoral Fellow Jawaharlal Nehru
University, New Delhi.**

Projects Completed/Ongoing	:	On-going Project from the Department of Science and Technology Women Scientist A (DST-WOSA)
Total money sanctioned	:	~26 Lakhs
Office held	:	Member, IQAC (2019-20) Member, UGC-PARAMARSH (2021-2023)
No. of Publications	:	26 (including book chapters)
No. of Papers Presented in the National/ International/ Seminars / Workshops/ Conferences	:	NIL
No. of books published/Edited/ Co-edited	:	NIL
No. of Seminars/Conference/Workshop Organised	:	6
No. of Conference/Workshop Attended	:	12
Honors and Awards received	:	<p>2022- “Young Women Scientist” award by Nature Science Foundation, Coimbatore.</p> <p>2002 – Cleared CSIR-UGC Lecturership Examination.</p> <p>2001 – Cleared GATE with 78.51 percentile ALL INDIA RANK: 429</p> <p>2001 - GOLD Medal for the best performance in Masters Degree</p> <p>2000 – Summer Research fellowship, Indian Academy of Science, Bangalore for a period of May- June.</p> <p>1999 - Summer Research fellowship, Jawaharlal Nehru Center for Advanced Scientific Research, Bangalore for a period of May-June.</p> <p>1999 - GOLD Medal for the best performance in Bachelors Degree</p>
Any other	:	Delivered invited guest lectures for two courses at VIT, Vellore

PUBLICATIONS:

1. **Gowri VS**, Pandit SB, Karthik PS, Srinivasan N, Balaji S. Integration of related sequences with protein three-dimensional structural families in an updated version of PALI database. *Nucleic Acids Res.*(2003)31:D486-D488.<https://doi.org/10.1093/nar/gkg063>
2. Pandit SB, Bhadra R, **Gowri VS**, Balaji S, Anand B, Srinivasan N. SUPFAM: a database of sequence superfamilies of protein domains. *BMC Bioinformatics.*(2004)5:28.<https://doi.org/10.1186/1471-2105-5-28>
3. Anand B, **Gowri VS**, Srinivasan N. Use of multiple profiles corresponding to a sequence alignment enables effective detection of remote homologues. *Bioinformatics.*(2005)21:2821-2826.<https://doi.org/10.1093/bioinformatics/bti432>
4. Padmanabhan PK, Mukherjee A, Singh S, Chattopadhyaya S, **Gowri VS**, MylerPJ, Srinivasan N, Madhubala R. Glyoxalase I from *Leishmaniadonovani*: a potential target for anti-parasite drug. *BiochemBiophys Res Commun.*(2005) 337:1237-1248. <https://doi.org/10.1016/j.bbrc.2005.09.179>
5. Tyagi M, **Gowri VS**, Srinivasan N, de Brevern AG, Offmann B. A substitution matrix for structural alphabet based on structural alignment of homologous proteins and its applications. *Proteins.*(2006) 65:32-39. <https://doi.org/10.1002/prot.21087>
6. **Gowri VS**, Krishnadev O, Swamy CS, Srinivasan N. MulPSSM: a database of multiple position-specific scoring matrices of protein domain families. *Nucleic Acids Res.*(2006) 34:D243-D246. <https://doi.org/10.1093/nar/gkj043>
7. **Gowri VS**, Sandhya S. Recent trends in remote homology detection: an Indian Medley. *Bioinformation*(2006) 1: 94-96.<https://doi.org/10.6026%2F97320630001094>
8. **Gowri VS**, Tina K Graceline, Krishnadev O and Srinivasan N. Strategies for the effective identification of remotely related sequences in multiple PSSM search approach. *Proteins.* (2007) 67:789-794.<https://doi.org/10.1002/prot.21356>
9. **Gowri VS**, Anamika K, Gore S and Srinivasan N (2007) Analysis on sliding helices and strands in protein structural comparisons: A case study with protein kinases. *J.Bio.Sci.*(2007) 32:921-928.<https://doi.org/10.1007/s12038-007-0092-2>
10. **Gowri VS**, Venkatasubramanian D, Raghavendran KS, Swamy CS and Srinivasan N. (2007) Stretching the limits of comparative modeling of proteins: Modeling on the basis of remote relationships in *Recent Adv. In Str. Bioinf.* 299-312, Edited by: Alexandre G. de Brevern. ISBN: 978-81-308-0208-4.
11. Ambrish Roy, Srinivasan N and **GowriVS** Molecular and structural basis of drift in the functions of closely-related homologous enzyme domains: Implications for function annotation based on homology searches and structural genomics. *In Silico Biol.*(2009) 8:44.<https://doi.org/10.3233/ISB-2009-0379>
12. JyotiRath*, **Gowri VS***, Swati Chattopadhyay, Prasad K Padmanabhan, Srinivasan N. and RentalaMadhubala. A glutathione specific aldose reductase of

- Leishmaniadonovani* and its potential implications for methylglyoxal detoxification pathway. *Gene*(2009) 429:1-9. [* joint first authors]<https://doi.org/10.1016/j.gene.2008.09.037>
13. Nidhi T, Swapna TS, Mohanty S, Agarwal G, **Gowri VS**, Anamika K, LeenaPriya M, Krishnadev O and Srinivasan N. Evolutionary divergence of *Plasmodium falciparum*: Sequences, protein-protein interactions, pathways and processes. *Infectious disorders - drug targets* (2009)9: 257-271.<https://doi.org/10.2174/1871526510909030257>
 14. **GowriVS***, KhaderShameer*, Chilamakuri Chandra Sekhar Reddy, PrashantShingate&RamanathanSowdhamini). A Sequence Data Mining Protocol to Identify Best RepresentativeSequence for Protein Domain Families. *Proceedings of 2010 IEEE International Conference on Data Mining Workshops (ICDMW 2010)*(2010) pp. 703-710. ISBN: 978-0-7695-4257-7. (* Joint First Authors)<https://doi.org/10.1109/ICDMW.2010.153>
 15. Chawla B, Kumar RR, Tyagi N, **Subramanian G**, Srinivasan N, Park MH, Madhubala R. A unique modification of the eukaryotic initiation factor 5A shows the presence of the complete hypusine pathway in *Leishmaniadonovani*. *PLoS One*. (2012)7:e33138.<https://doi.org/10.1371/journal.pone.0033138>
 16. **V S Gowri**, Indira Ghosh, Amit Sharma and RentalamMadhubala. Unusual domain architecture of aminoacyltRNAsynthetases and their paralogs from *Leishmania major*. *BMC Genomics*.(2012)13: 621.<https://doi.org/10.1186/1471-2164-13-621>
 17. Nimisha Mittal, **Gowri V S**, Peter Bütikoferand RentalamMadhubala. Unique Posttranslational Modifications in Eukaryotic Translation Factors and their Roles in Protozoan Parasite Viability and Pathogenesis. *Mol. Biochem. Parasitol.* 2013; 187; 21.<https://doi.org/10.1016/j.molbiopara.2012.11.001>
 18. G. Ramakrishnana, **V S Gowri**, R. Mudgal, N R Chandra and N Srinivasan. Mining the sequence databases for homology detection: Application to recognition of functions of *Trypanosomabruceibrucei*proteins and Drug targets. (Book Chapter) *Biological Data Mining and its applications in Healthcare*. (2014) pp. 3-31. https://doi.org/10.1142/9789814551014_0001.
 19. Manhas R, Tripathi P, Khan S, Sethu Lakshmi B, Lal SK, **Gowri VS**, Sharma A, Madhubala R. Identification and functional characterization of a novel bacterial type asparagine synthetase A: a tRNAsynthetaseparalog from *Leishmaniadonovani*. *J Biol Chem*. (2014)289(17):12096-108.<https://doi.org/10.1074/jbc.M114.554642>
 20. Mittal N, Morada M, Tripathi P, **Gowri VS**,Mandal S, Quirch A, Park MH, Yarlett N, Madhubala R. *Cryptosporidium parvum* has an active hypusine biosynthesis pathway. *MolBiochemParasitol*. (2014)195(1):14-22.<https://doi.org/10.1016/j.molbiopara.2014.05.005>
 21. Manhas R, **Gowri VS**, Madhubala R. *Leishmania donovani* encodes a functional selenocysteinyI-tRNA synthase. *J Biol Chem*.(2015) 291 (3):1203-1220. <https://doi.org/10.1074/jbc.M115.695007>

22. Ruby Bansal, HimanshuBhusanSamal, **VS Gowri**, ShibSankarSen, Indira Ghosh, RentalMadhubala. The Cytochrome P450 Complement (CyPome) of *Leishmania* leads to the discovery of a plant like Cytochrome P450 subfamily CYP710C1 gene. *Proceedings of the Indian National Science Academy*(2017)83(3): 701-715. <https://doi.org/10.16943/ptinsa/2017/49026>
23. **Gowri VS**, Mittal N, Rohini M and Madhubala R. Genome-wide Profiling of Unique Domain Architectures reveal Novel Epigenetic Regulators of *Leishmaniainfantum* Molecular Biology of Kinetoplastid Parasites, Caister Academic Press, United Kingdom. (2018)1-26.<https://doi.org/10.21775/9781910190715.01>
24. **Gowri V.S.**, Sabareesh V. A Glimpse into Peptidomic Approach. In: Hameed S., Fatima Z. (eds) Integrated Omics Approaches to Infectious Diseases. Springer, Singapore. (2021) ISBN978-981-16-0690-8. https://doi.org/10.1007/978-981-16-0691-5_15
25. Janaki, C., **Gowri, V.S.&Srinivasan, N.** Master Blaster: an approach to sensitive identification of remotely related proteins. *Sci Rep* **11**, 8746 (2021). <https://doi.org/10.1038/s41598-021-87833-4>
26. SabareeshV ,**Gowri V S** A Bird's-Eye View of Fungal Peptides. In Fungi and Fungal Products in Human Welfare and Biotechnology (2023)ISBN978-981-19-8852-3. https://doi.org/10.1007/978-981-19-8853-0_6
