

## CURRICULUM VITAE



1. **Name:** Dr. Shubha Gopal

2. **Address for Communication:** Professor

Department of Studies in Microbiology

University of Mysore, Mysore-570006

Email: [sguom@yahoo.com](mailto:sguom@yahoo.com),

[sg@microbiology.uni-mysore.ac.in](mailto:sg@microbiology.uni-mysore.ac.in)

Phone: 0821- 2419690(O), +91-9448005809 (Mob)

### 3. Educational Qualifications

- M.Sc. Biotechnology, University of Mysore (1992-1994)
- Ph.D in Biosciences, Mangalore University (1996- 2000)
- Post Doctoral Research Fellow, DAAD Fellowship, University of Wuerzburg, Germany (2002-2004)
- **Visiting Scientist, University of Wuerzburg, Germany**
  - 15-11-2007 to 31-11-2007
  - 03-10-2008 to 28-11-2008
  - 01-05-2009 to 01-08-2009
  - 01-02-2010 to 15-03-2010
  - 04-10-2010 to 16-10-2010
  - 15-06-2011 to 15-07-2011
  - 24-05-2012 to 15-06-2012.
- Visiting scientist, Dept. of Microbiology and Immunology, University of Illinois, Chicago, USA (2013-2014)
- Shastri Indo Canadian Institute Mobility Fellowship November, 2018, Department of Molecular Genetics, University of Toronto.
- Visiting Professor, Central China Normal University, Wuhan and Huanghuai University, China, May 2019.

### 4. Awards

- Schevaran Scientific Excellence Award – 19<sup>th</sup> January, 2019.
- Shastri Indo Canadian Institute Mobility Fellowship November, 2018, Department of Molecular Genetics, University of Toronto.

- Department of Biotechnology - Cutting-Edge Research Enhancement and Scientific Training award (DBT-CREST) for the year 2012-13.
- Dr. Kalpana Chawla Young Women Scientist Award for the year 2011 from Karnataka State Council for Science & Technology, Government of Karnataka.
- Best Publication Award (ARP-Award for Research Publication) for the year 2011 from Vision Group on Science & Technology, Government of Karnataka.
- DAAD Fellowship (2002-2004), worked at Univ. of Wuerzburg, Germany.
- DBT Senior Research Fellowship (1996-2000)
- National Merit Scholarship (1992-1994)

## 5. Projects:

- a) University Grants Commission (UGC), Government of India, New Delhi sponsored project entitled, 'Incidence of *Listeria monocytogenes* in clinical samples and their characterization using molecular methods' (2011-2014).
- b) Indo-German collaborative project (ICMR-BMBF) entitled, 'Thiol-mediated oxidative stress response in *Listeria monocytogenes* in particular in biofilms' (2007-2010).
- c) Department of Science and Technology, New Delhi Government of India, New Delhi (DST FAST TRACK) sponsored project entitled, 'The role of glutathione and thioredoxin metabolism in Gram-positive bacterium *Listeria monocytogenes*' (2006-2009).

## 6. Selected publications/Book chapters:

1. HP Komala, AG Devi Prasad, CL Deepashree, **Shubha Gopal**. Bioactivities of selected edible fruits of western ghats region of Karnataka. Journal of Advanced Scientific Research. 13/4. P. 23-30.
2. MG Avinash, Farhan Zameer, **Shubha Gopal**. The propensity of selected Indian plant extracts for polyphenolics, antioxidant, and inhibition of *Pseudomonas aeruginosa* biofilms through type-3 secretion system. Journal of Applied Biology and Biotechnology. 10/3. P.6-8.
3. Shivaswamy Umamaheshwari, Sumana Mahadevaiah Neelambike, Shamanth Adekhandi Shankarnarayan, Keerthi Sravanur Kumarswamy, **Shubha Gopal**, Hariprasath Prakash, Shivaprakash Mandya Rudramurthy. Clinical profile, antifungal susceptibility, and molecular characterisation of *Candida auris* isolated from patients in a South Indian surgical ICU. Journal of Medical Mycology, 31/ 4, 2021, <https://doi.org/10.1016/j.mycmed.2021.101176>.
4. Kiran Kumar Siddappaji, **Shubha Gopal**. Molecular mechanisms in Alzheimer's disease and the impact of physical exercise with advancements in therapeutic approaches. AIMS Neuroscience. 2021, 8(3): 357-389.

5. SGS Gowda, B Narayan, **S Gopal**. Antioxidant Properties and Dominant Bacterial Community of Fermented Rohu (*Labeo rohita*) Sauce Produced by Enzymatic and Fermentation Method. *Turk. J. Fish. & Aquat. Sci*, 2020
6. C Rajendran, CM Keerthana, KR Anilakumar, AS Satbigge, **Shubha Gopal**. Development of B1 Nested PCR for Assessing the Prevalence of Zoonotic Protozoan Disease Agent *Toxoplasma Gondii* among Food Animals from Karnataka State, Southern India, *Journal of Microbiology and Laboratory Science*, 2018, 1: 101
7. Vineeth Rajan, Pradeep Halebeedu Prakash, **Shubha Gopal**. Occurrence of linezolid-resistant *Staphylococcus haemolyticus* in two tertiary care hospitals in Mysuru, South India. *Journal of Global Antimicrobial resistance*, 2017, 8, 140-141.
8. G. S. Siddegowda, N. Bhaskar & **Shubha Gopal**. Fermentative Properties of Proteolytic *Pediococcus* Strains Isolated from Salt Fermented Fish Hydrolysate Prepared Using Freshwater Fish Rohu (*Labeo rohita*). *Journal of Aquatic Food Product Technology*, 2017, 26 (3), 341-355.
9. Niveditha Prakash, Shubha Gopal. Characterization of an extracellular chitosanase from the soil bacterium *Bacillus cereus* CH12. *IIOAB Journal*. 2017, 8 (1), 1-6.
10. Pradeep Halebeedu Prakash, Vineeth Rajan, **Shubha Gopal**. Predominance of SCCmec types IV and V among biofilm producing device-associated *Staphylococcus aureus* strains isolated from tertiary care hospitals in Mysuru, India. *Enfermedades Infecciosas y Microbiología Clínica*, 2017, 35(4), 229-235.
11. Kadanuru R Sathisha, **Shubha Gopal**, Kanchugarakoppal S Rangappa. Antihyperuricemic effects of thiazolopyrimidin-5-one analogues in oxonate treated rats. *European Journal of Pharmacology*, 2016, 776, 99-105.
12. G. S. Siddegowda, N. Bhaskar and **Shubha Gopal**. Biochemical and Bacteriological Quality of Rohu (*Labeo rohita*) Head Sauce Produced by Enzymatic and Fermentation Method. *Fishery Technology*, 2016, 53, 220-231.
13. Pradeep Halebeedu Prakash, **Shubha Gopal**. Prevalence of leukotoxic profile of biofilm forming *Staphylococcal* strains isolated from a tertiary care hospital in Mysore. *Tropical Journal of Pathology and Microbiology*, 2016, 2(3), 110-119.
14. Vineeth Rajan, Sonja M.K. Schoenfelder, Wilma Ziebuhr, **Shubha Gopal**. Genotyping of community-associated methicillin resistant *Staphylococcus aureus* (CA-MRSA) in a tertiary care centre in Mysore, South India: ST2371-SCCmec IV emerges as the major clone. *Infection, Genetics and Evolution*, 2015, 34:230-235.

15. Siddegowda Gopalapura Shivanne Gowda, Bhaskar Narayan, **Shubha Gopal**. Bacteriological Properties and Health related Biochemical Components of Fermented Fish Sauce: An overview. *Food Reviews International*, 2015, 32(2), 203-229.
16. Vanishree S, **Shubha Gopal**, LmTDRM Database: A comprehensive database on thiol metabolic gene/gene products in *Listeria monocytogenes* EGD-e. *Journal of Integrative Bioinformatics*, 2014, 11(1): 245.
17. Sangeetha Mahadevaiah Shantha, **Shubha Gopal**. Molecular identification of *Listeria* species from vegetables marketed in Mysore, Karnataka, India. *International Research Journal of Biological Sciences*, 2014, 3(11): 1-4.
18. Sangeetha Mahadevaiah Shantha, **Shubha Gopal**. Prevalence of *Listeria* in environment and milk samples. *Advances in Animal and Veterinary Sciences*, 2014, 2(5S):1-4.
19. Vineeth Rajan, Vijay Gowdara Shankarappa Kumar, **Shubha Gopal**. A *cfr*-positive clinical staphylococcal isolate from India with multiple mechanisms of linezolid-resistance. *Indian Journal of Medical Research*, 2014, 139 (3): 463-467
20. Pradeep Halebeedu Prakash, Vijay GS Kumar, **Shubha Gopal**. Revamping the role of biofilm regulating operons in device associated staphylococci and *Pseudomonas aeruginosa*. *Indian Journal of Medical Microbiology*, 2014, 32 (2): 112-123.
21. Zarena AS, **Shubha Gopal**, Vineeth Rajan. Antioxidant, antibacterial and cytoprotective activity of agathi leaf protein, *Journal of Analytical Methods in Chemistry*, 2014, <http://dx.doi.org/10.1155/2014/989543>.
22. Zarena AS, **Shubha Gopal**. Dendrimers a new dimension in targeting biofilms, *Mini-reviews in medicinal chemistry*. 2013, 13(10):1448-1461
23. Deepashree CL, **Gopal S**. Free Radical Scavenging Potential of *Canthium parviflorum* extracts. *Journal of Herbs Spices & Medicinal Plants*. 2013, 19(3):286-296
24. Deepashree CL, J Komal Kumar, AG Deviprasad, Mahsa Zarei, **Shubha Gopal**. FTIR spectroscopic studies on *Cleome gynandra* – comparative analysis of functional group before and after extraction. *Romanian Journal of Biophysics* 2012, 22(3-4):137-143
25. Meghashri S, **Gopal S**. Biochemical characterization of radical scavenging polyphenols from *Nyctanthes arbortristis*. *Journal of Pharmacy & Bioallied Sciences*. 2012; 4(4):341-4.
26. Meghashri S, **Gopal S**. Leucasin - induced cytoplasmic membrane damage in *Staphylococcus aureus*. *International Journal Phytomedicine*. 2012, 4(2).
27. Sathisha KR, Khanum SA, Chandra JNNS, Ayisha F, Balaji S, Marathe GK, **Gopal S** et al. Synthesis and xanthine oxidase inhibitory activity of 7-methyl-2-(phenoxyethyl)-5H-

- [1,3,4]thiadiazolo[3,2-a]pyrimidin-5-one derivatives. *Bioorganic & Medicinal Chemistry*. 2011, 19(1):211-20.
28. Zameer F, Kreft J, **Gopal S**. Interaction of *Listeria monocytogenes* and *Staphylococcus epidermidis* in dual species biofilms. *Journal of Food Safety*. 2010, 30(4): 954-68.
  29. **Gopal S**, Berg D, Hagen N, Schriefer EM, Stoll R, Goebel W, et al. Maltose and maltodextrin utilization by *Listeria monocytogenes* depend on an inducible ABC transporter which is repressed by glucose. *PLoS One*. 2010, 5(4):e10349.
  30. Zameer F, **Gopal S**, Krohne G, Kreft J. Development of a biofilm model for *Listeria monocytogenes* EGD-e. *World Journal of Microbiology & Biotechnology*. 2010; 26(6):1143-7.
  31. **Gopal S**, Srinivas V, Zameer F, Kreft J. Prediction of proteins putatively involved in the thiol: disulfide redox metabolism of a bacterium (*Listeria*): The CXXC motif as Query Sequence. *In Silico Biology*. 2009; 9(5):407-14.
  32. Zameer F, **Gopal S**. Evaluation of antibiotic susceptibility in mixed culture biofilms. *International Journal of Biotechnology and Biochemistry*. 2010; 6(1):93-99.
  33. Meghashri S, Kumar HV, **Gopal S**. Antioxidant properties of a novel flavonoid from leaves of *Leucas aspera*. *Food Chemistry*. 2010; 122(1):105-10.
  34. **Gopal S**, Otta SK, Kumar S, Karunasagar I, Nishibuchi M. The occurrence of vibrio species in tropical shrimp culture environments; implications for food safety. *International Journal of Food Microbiology*. 2005; 102(2):151-9.
  35. **Gopal S**, Borovok I, Ofer A, Yanku M, Cohen G, Goebel W, et al. A multidomain fusion protein in *Listeria monocytogenes* catalyzes the two primary activities for glutathione biosynthesis. *Journal of Bacteriology*. 2005; 187(11):3839-47.
  36. Otta, S. K., **Shubha, G.**, Joseph, B., Chakraborty, A., Indrani, K., & Iddya, K. Polymerase chain reaction (PCR) detection of White Spot Syndrome Virus (WSSV) in cultured and wild crustaceans in India. *Diseases of Aquatic Organisms*, 1999; 38, 67-70.

#### **Book Chapters:**

Zameer,F., Pankaj, Kounaina, Aishwarya, Anirudh, Avinash, **Shubha Gopal**, Nagendra Prasad, Veena SM, Raghava, Raghu, Shiva prasad Hudedda. 2019. "Synthetic gutomics: Deciphering the microbial code for futuristic diagnosis and personalized medicine". In *Methods in Microbiology*, Elsevier. 57. Pp 1-30. ISSN 0580-9517

#### **7. Selected conferences / Invited talks**

1. Preethi,C., and Gopal,S. Oral scientific paper presentation titled "Computational analysis of CRISPR Cas system among Staphylococcal genome" in 'BMS e-CON' held during 17th to

- 19th September, 2020 organized by Department of Anatomy, Biochemistry, Physiology and Center for Biomedical Research, AVMCH, Puducherry.
2. Preethi,C., Vineeth,R and Gopal,S. “Stratagies to combat multi-drug resistant clinical Staphylococcus isolates.” Abstract no.OP 08 at NCIFCB – 2018 held on 26th – 28th March 2018 at Sri Venkateshwara University, Tirupati, Andra Pradesh.
  3. P.H.Prakash, **S. Gopal**, D.B. Haslam, J.E. Mortensen, A.B.Herr, Staphylococcus aureus forms robust biofilm with Staphylococcus epidermidis in an *in vitro* mixed biofilm model. Poster presented at ASM Annual Meeting, New Orleans, USA, May 30<sup>th</sup>- June 2<sup>nd</sup>, 2015.
  4. Participated in the first Indian Institute on ‘Responsible conduct of Science and Research’, jointly organized by National Academy of Sciences, USA and NITTE University, Mangalore, April 30<sup>th</sup>-May 3<sup>rd</sup>, 2015.
  3. Vineeth Rajan and **Shubha Gopal**. Emergence of *pvl* – positive CA-MRSA strains of the new Sequence Type (ST) 2371 in India. Poster presented at the 102<sup>nd</sup> Indian Science Congress, University of Mumbai, Mumbai, 3-7<sup>th</sup> January 2015.
  4. Gary C Port, **Shubha Gopal**, Nancy E Frietag, Functional and structural analysis of the ESX-1 locus in *Listeria monocytogenes* EGD-e and comparison to other *L. monocytogenes* strains and *Listeria* species. 21<sup>st</sup> Annual Midwest Microbial Pathogenesis Conference, Chicago, Illinois, USA, Sept 12-14, 2014.
  5. Pradeep H P, Vijay GS Kumar, **Shubha Gopal**. ‘A 3D model to understand the pathogenesis of chronic staphylococcal infections. Poster presented at the Annual conference of Association of Microbiologists of India (AMI), Maharshi Dayanand University, Rohtak, Haryana, India, 17<sup>th</sup> to 22<sup>nd</sup> November 2013.
  6. Sangeetha M S, **Shubha Gopal**. ‘Prevalence of *Listeria* species in environment, milk & clinical samples’, Poster presented at XVIII International Symposium on Problems of Listeriosis (ISOPOL XVIII), Goa Marriott Resort, Panaji, Goa, India, September 19-22, 2013.
  7. Vanishree, S., **Shubha Gopal**. ‘Computational analysis of thiol derived proteins in *Listeria monocytogenes* EGD-e’.International Conference on Chemical, Biological and Medical Sciences. Kuala Lumpur, Malayasia. 25<sup>th</sup> & 26<sup>th</sup> August 2012 (**1<sup>st</sup> prize, oral presentation**)
  8. Invited speaker at National Seminar on Molecular Aspects of Microbiology (NSMM-2012) organized by Department of Microbiology, Periyar University, Salem, 7<sup>th</sup> March 2012.
  9. Vineeth, R., Pradeep, H.P., and **Shubha Gopal**., ‘Incidence of multidrug resistant and biofilm

forming *Staphylococcus aureus* from hospitals in Mysore'. Poster presented at 2<sup>nd</sup> National Conference on Antimicrobial Resistance, Sam Higginbotham Institute of Agriculture, Technology and Science (Deemed to be University), Allahabad, 6<sup>th</sup> - 8<sup>th</sup>, February 2012. (**Best Poster Award**).

10. Invited speaker at Euro- Indian week, an International conference held at University of Wuerzburg, Germany, 1<sup>st</sup> - 8<sup>th</sup> July 2011.

#### **8. Details of guideship:**

- Number of Post-doctoral fellow (completed): 2
- Number of PhD candidates successfully completed: 10
- Number of PhD candidates currently working: 6