

# CURRICULUM VITAE



## Personal Details:

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## Academic Qualifications

- B.Sc. (1987) Bombay University, Bombay-(Microbiology/ Biochemistry)
- M.Sc, (1989) Bombay University, Bombay- (Biochemistry)
- Ph.D, (1993-1998) Cochin University of Science & Technology-(Microbiology)

## Professional details

- a. Date of superannuation ( as per my University norm)-30-04-2027
- b. Awards/honours received
  1. Daxina award for the year 1987-77 and 88-89 for the M.Sc. Biochemistry Program by the (Royal) Institute of Science, Mumbai (under the University of Mumbai).
  2. UGC-JRF and SRF awarded (Dec, 1992 Examination)
  3. UGC-NET for Lecturer ship (1992)
  4. DBT-CTEP Travel grant for paper presentation at the 1st International Caparica Conference in Antibiotic Resistance.IC<sup>2</sup>AR 2015, held at Lisbon, Portugal from 26-28<sup>th</sup> January, 2015
  5. UGC-FRPS Midcareer award 2020

## Experience

1. Adjunct faculty at Department of Marine biology, Microbiology and Biochemistry, School of Marine Sciences, CUSAT from July 1998 to May 1999.
2. Appointment as Lecturer (Regular post) in Department of Biotechnology, CUSAT from 1<sup>st</sup> June 1999

3. Professor (CAS) w.e.f 1<sup>st</sup> June, 2014., Senior Professor w.e.f. 1<sup>st</sup> June ,2024

With >25 years of Teaching and research experience at the Department of Biotechnology, CUSAT. Job activities included teaching and mentoring the post graduate students of the Masters' program in Biotechnology, Master's program in Microbiology (since 2018). In addition, several Masters' dissertation projects of students within the department and outside were also supervised during this period.

Besides, doctoral supervision of research scholars at the Department of Biotechnology, CUSAT was also done. Several students working under my sole supervision as well as those with joint supervision have been awarded doctoral degrees. My team successfully introduced *C. elegans* and Zebrafish as model organisms for research purposes in the Department of Biotechnology, besides working on the bacterial system. We have published these works in peer reviewed journals with high IF.

During these two and half decades, several projects with total worth of a few crores of rupees have been awarded, as Principal investigator or as Co-PI. This also gave us the opportunity to collaborate with several faculty in sister departments and other institutions and publish these research outcomes.

Several post-doctoral fellows have worked with my mentorship and have expanded their research areas, going on to win prestigious 5-year grants or to move as regular faculty in other teaching institutions. We have published together in in peer reviewed journals with high IF.

4. Head of Department of Biotechnology

I have had the opportunity to serve three tenures as Head, Department of Biotechnology. (Head, Dept. of Biotechnology from July 2011 to Dec 2013; Since 1<sup>st</sup> Jan, 2016 to 31<sup>st</sup> Dec, 2018; from 1<sup>st</sup> Jan, 2019 to 31-12-2021). During this period, we could successfully upgrade and improve the infrastructure associated with the small animal facility; Renew our IAEC accreditation with the CAEC. An additional floor space allocated to the cell and molecular biology lab and the microbial genetics lab, is in use today and houses more than 35 research scholars, PDFs, Interns, trainees etc. In addition, recently the Zebrafish facility was constructed and is awaiting completion.

5. Currently Co-Ordinator, Centre for Integrated Studies

From 3<sup>rd</sup> Jan, 2024, took charge of the Centre for Integrated Studies as its Co-ordinator. This involves coordinating the various Integrated M.Sc programs offered under the Faculty of sciences( IM.Sc. Physics; IM.Sc. Chemistry; IM.Sc. Biological sciences; IM.Sc. Mathematics; IM.Sc. Statistics). The centre will have a significant role in the wake of the NEP and with the introduction of the TYUGP, FYUGP programs from 2024 admissions.

6. Chairperson Board of Studies (BOS), Biotechnology, DBT, CUSAT

Nominated the chairman, Board of Studies in Biotechnology 3 times (July 2011- Dec 2013), Since 1-04-2016 to 24.03.2021; from 28.05 2021 to 27.05.2025. Instrumental in starting the new Masters in Microbiology in 2018 with the support of my colleagues. The curriculum and syllabi for the M.Sc. Biochemistry is also approved by the University.

7. Member of Different academic bodies in the CUSAT

- a) Member of Faculty of Science, CUSAT, (July 2011- Dec 2013), since 1<sup>st</sup> Jan, 2016 Member of Faculty of Environmental studies, CUSAT
- b) Member of Academic Council, CUSAT (July 2011- Dec 2013), since 1<sup>st</sup> Jan, 2016 to date
- c) Member of Standing committee of Academic council, CUSAT
- d) Member of Academic committee, CUSAT
- e) Member, Board of studies in Biological and Chemical sciences under Faculty of sciences, CUSAT since June 2018.
- f) Member of BOS, Marine Biotechnology, NCAAH, CUSAT
- g) Chairperson, Passing board of various end semester examinations M.Sc. Biotechnology, conducted during the tenure of HOD, Department of biotechnology, CUSAT.

8. Member of different academic bodies in other Universities

- a. Member of Board of Studies in Microbiology, Kannur University, Board of studies in Biotechnology, PSG college of Arts and Science, Coimbatore.
- b. DBT nominee to Institutional biosafety committee, Department of molecular medicine, Amrita University, Kochi.
- c. DBT nominee/Expert to Institutional biosafety committee, KINFRA BIONEST, Kochi
- d. Member of Research committee, Vellore Institute of Technology, CIFT, KUFOS

9. Other administrative/academic activities

- a) Member of Staff council, CUSAT, 2017 to 2019
- b) Ph.D thesis examiner/expert, Viva board Chairperson at NIIST, Tvm, Goa University, Kerala University, MG University, etc

## 10. . Others

As convenor, conducted several National conferences as well as training programs in the Department of Biotechnology, CUSAT. As resource person, offered many keynote talks /invited talks at National and international conferences.

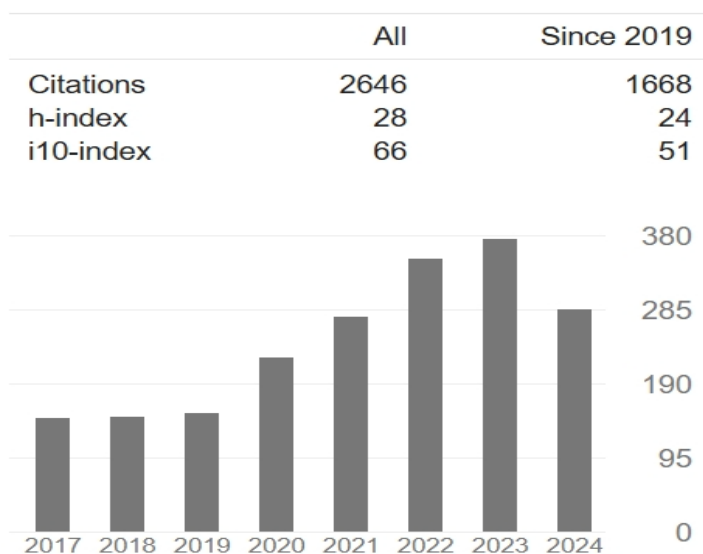
## 9. Citations/h-index

[Sarita Bhat - Google Scholar](#)

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## Research areas of interest

### Phage biology and therapy

With the rampant use of antibiotics in animal husbandry, aquaculture and by humans, there is an ever-increasing trend of antimicrobial resistance in bacteria. AMR in bacteria which cause diseases can be untreatable leading to fatalities. Hence, bacteriophages have emerged as a one of many strategies to tackle this. With their high host specificity, their ability to infect other bacteria is limited. Understanding their genome enables the understanding of their biology, helping to enlist different enzymes as therapeutics Endolysins, holins are some of the phage proteins of therapeutic significance. Use of recombinant DNA technology can enable modification of phage endolysins to alter their host range and thereby serve as an proficient therapeutics. We are currently focusing on this aspect also. In addition, the use of phages in

the treatment of chronic wounds, especially diabetic foot is of importance. Hence, impregnation of phages specific to wound infecting bacteria into nanomaterials that can serve as wound dressing is also another area of focus. Several publications in high impact peer-reviewed journals have been made and several are a work in progress.

#### Probiotic modulations of Gut microbiomes in health and disease

Probiotics are organisms that help to restore the gut environments from events of gut dysbiosis and inflammation. Genomic analysis of probiotic bacteria corroborates their physico-chemical characteristics and other features. The role of probiotics in remediation of inflammation in the gut induced by various means were studied and their impact on gut brain axis and behavior was also analyzed. The omics strategy is used to understand diversity and function under these conditions in zebrafish model organism. In addition, work is underway to understand the role of probiotics in ameliorating the effects of alcohol induced liver disease and non-alcoholic liver disease. The changes in the gut and the brain during control and test conditions will be analyzed to have a greater understanding. Some publications have been made in this area and some are underway.

#### List of Research Publications

##### 1999-2013

1. Application of bacterins and yeasts to protect the larvae of *Macrobrachium rosenbergii* from vibriosis. Varghese, V.; \*Singh, I. S. B.; Bhat, S. G. *Fish and Shellfish Immunol.* 2000, 10(6), 559-563. doi: 10.1006/fsim.2000.0278, IF: 4.7
2. Structural, spectral and antibiotic studies of the copper (II) complexes of 2-benzopyridine N(4)-cyclohexyl thiosemicarbazone. Joseph, M., Suni V.; \*Kurup, M.R.P.; Netaji, M.; Kishore, A.; Bhat, S.G. *Polyhedron*, 2004, 23, 3069-3080. <https://doi.org/10.1016/j.poly.2004.09.026> IF: 2.6
3. Production, purification and partial characterisation of a novel protease from Marine *Engyodontium alba* BTMFS10 under Solid State Fermentation. Chellappan, S.; Jasmin, C.; Basheer, S.M.; Elyas, K.K.; Bhat, S.G.; Chandrasekaran, M. *Process Biochem.* 2005, 41, 956-961. <https://doi.org/10.1016/j.procbio.2005.10.017>, IF: 4.4
4. Structural, anti microbial and spectral studies of copper (II) complexes of 2-benzoylpyridine N (4)-phenyl thiosemicarbazone. Joseph, M.; Kuriakose, M.; \*Kurup, M.R.P.; Bhat, S.G. *Polyhedron*, 2006, 25, 61-70. <https://doi.org/10.1016/j.poly.2004.09.026>, IF: 2.6
5. Multiple antibiotic resistance of *Vibrio* isolates from the coastal and brackish water areas. Manjusha, S.; \*Bhat, S.G.; Elyas K.K.; Chandrasekaran, M. *Am.J. Biochem. Biotechnol.* 2005, 1(4) 201-205. IF:0.32

6. Laser induced fluorescence based optical fibre probe for analyzing bacteria. Sandeep, P.M.; Rajeev, S.W.B.; Sheeba, M.; Bhat, S.G.; Nampoory, V.P.N. Laser Phys. Lett. (2007) 1-5. DOI 10.1002/lapl.200710027, IF:1.7
7. Women in Science-Meeting report. Nambisan P.; Bhat, S.G. Current Science, 2008, Vol.95, No.1. IF:0.833
8. Biodegradability studies on LDPE –starch blends using amylase producing Vibrios. Hamza, Z. P.; Anna Dilfi K.F.; Kurian T.; Bhat, S.G. Intl. J. Polymeric Mat. 2009, Vol.58:1-10. <https://doi.org/10.1080/00914030902719386> . IF:3.2
9. Biodegradability of LLDPE-starch blends using vibrios from benthic environment .Anna Dilfi K. F.; Hamza, Z. P.; Kurian, T.; Bhat, S.G.; Int. J. Plastics Technol. 2008, Vol. 12, 1021 – 1030. IF:1.0
10. Effect of amylase producing vibrios from the benthic environments on the biodegradation of low density polyethylene –dextrin blends. Anna D.K.F.; Hamza, Z. P.; Kurian, T.; Bhat, S.G. Polymer-Plastics Technol. Engg. 2009, 48: 602-606. IF:1.481
11. Studies on biodegradability of linear low-density polyethylene-dextrin blends using vibrios from benthic environment. Hamza, Z.P.; Anna Dilfi, K. F.; Kurian, T.; Bhat, S.G. Prog. Rubber, Plastics and Recycling Technol. 2009, Vol.25 no.3. <https://doi.org/10.1177/147776060902500> IF:: 2.6
12. Molecular cloning and homology modelling of a subtilisin-like serine protease from the marine fungus, *Engyodontium album* BTMFS10. Jasmin, C.; Chellappan, S.; Sukumaran, R.K.; Elyas K.K.; Bhat, S.G.; Chandrasekaran, M. World J. Microbiol. Biotechnol. 2010, (DOI 10.1007/s11274-009-0298-6) IF:4.2
13. Characterization of Linear Low-Density Polyethylene/Poly(vinyl alcohol) blends and their biodegradability by *Vibrio* sp. isolated from marine benthic environment. Francis, V. S.; Subin, R.S.; Bhat, S.G.; Thachil, E.T. J. App. Polymer Sc. 2011, DOI 10.1002/app.34155 IF:3.0
14. Propyl Gallate synthesis using acidophilic tannase and simultaneous production of tannase and gallic Acid by marine *Aspergillus awamori* BTMFW032. Beena, P. S; Basheer, S.M.; Bhat, S.G.; Bahkali, A. H.; Chandrasekaran, M. Appl. Biochem. Biotechnol. 2011, DOI 10.1007/s12010-011-9162-x. IF:3.0
15. Effect of cobalt stearate and vegetable oil on UV and biodegradation of Linear Low density Poly (ethylene) –Poly(vinyl Alcohol) blends Francis, V. S.; Subin, R.S.; Bhat, S.G.; Thachil, E. T. Polymers from Renewable Resources, 2011, Vol. 2, No. 4. IF: 5.0
16. Plasmid associated antibiotic resistance in *Vibrios* isolated from coastal waters of Kerala. Manjusha, S.; \*Bhat, S.G. Inter. Food Res. J. 2011, 18: x-x) IF:1.169

17. Seasonal variation in the hydrolytic exo-enzyme profile of *Vibrio* sp. associated with the marine benthic environment of South India. Subin, R. S.; \*Bhat, S.G. Indian J. of Geo-Mar. Sc. (IJMS), 2011, Vol.40(6) p826-833. IF:0.422
18. Characterization of an extracellular alkaline serine protease from marine *Engyodontium album* BTMFS10. Chellappan, S.; Jasmin, C.; Basheer, S. M.; Kishore, A.; Elyas, K. K.; Bhat, S. G.; Chandrasekaran, M. J. Indust. Microbiol. Biotechnol., 2011, 38 (Issue 6), pp 743-752. IF:3.74
19. *Garcinia cambogia* leaf and seawater for tannase production by marine *Aspergillus awamori* BTMFW032 under slurry state fermentation. Beena, P. S.; Basheer, S.M.; Bhat, S. G.; Chandrasekaran, M. Natural Prod. Communic. 2011, Vol. 6 (12) 1933-1938. PMID: 22312743, IF:1.8
20. Isolation and Partial characterization of  $\Phi$ SP-1, a *Salmonella* specific lytic phage from intestinal contents of broiler chicken- candidate for biocontrol agent. Augustine, J.; Louis, L.; Varghese, S. M.; \*Bhat, S, G.; Kishore, A. J. Basic Microbiol. 2012, 52:1-11. DOI 10.1002/jobm.201100319. IF:3.1
21.  $\Phi$ SP-3, a *Salmonella* specific lytic phage capable of infecting its host under nutrient deprived states. Augustine, J.; Varghese, S. M.; \*Bhat, S. G. Ann. Microbiol. 2013, 63, 381-386. DOI 10.1007/s13213-012-0485-9. IF:3.0
22. Characterization of Plasmids from Multiple Antibiotic Resistant *Vibrio* sp. Isolated from Molluscs and Crustaceans. Manjusha, S.; \*Bhat, S. G. Korean J. Microbiol. Biotechnol. 2012, Vol. 40, No. 3, 197–207. <https://doi.org/10.4014/kjmb.1205.05002> IF:1.685)
23. Isolation and characterization of a solvent tolerant alkaliphilic marine bacteria. Alex, R.; \*Bhat, S.G. Int. J. Sc. Engg. Res. 2012, Vol. 3. (8). ISSN 2229-5518. IF:3.8
24. Thermostable bacteriocin BL8 from *Bacillus licheniformis* isolated from marine sediment. Smitha, S.; \*Bhat, S.G. J. Appl. Microbiol. 2012, (doi:10.1111/jam.12097) IF: 4.0
25. Highly luminescent and bio-compatible, L-citrulline capped ZnS:Mn nanocrystals for rapid screening of metal accumulating *Lysinibacillus fusiformis* bacteria. Sajimol, L.; Jayalakshmi, Alex, R.; Bhat, S.G. Luminescence: The J. of Biol. Chem. Lumin. 2013, DOI 10.1002/bio.2477, IF:2.9
26. Occurrence of potential pathogenic *Aeromonas* species in tropical seafood, aquafarms and mangroves off Cochin coast in South India. Joseph, A. V.; Subin, S. R.; Nair, H.P.; \*Bhat, S.G. Vet. World, 2013, Vol.6 No.6 , IF:1.6

27. Isolation and characterization of polyhydroxyalkanoates accumulating *Vibrio* sp. strain BTTC26 from marine sediments and its production kinetics. Subin, S. R.; Varghese, S.M.; \*Bhat, S. G. J. Scien. Indus. Res. (JSIR), 2012, Vol. 72, pp. 228-235. IF:0.587
28. Halocin SH10 production by an extreme haloarchaeon *Natrinema* sp. BTSH10 isolated from salt pans of South India. Karthikeyan P.; \*Bhat, S. G.; Chandrasekaran, M. Saudi J. Biol. Scien. 2013, <http://dx.doi.org/10.1016/j.sjbs.2013.02.002>. IF:4.4
29. Biodegradation of polyvinyl alcohol-low linear density polyethylene blended plastic film by consortium of marine benthic vibrios. Subin, S. R.; \*Bhat, S. G.; Chandrasekaran, M.; Francis, V.; Thachil, E.T. Int. J. Environ. Sci. Technol. 2013, JEST-D-12-00274R2). IF:3.2

2014-2020

30. Halophiles and halozymes from tannery effluent as well as food grade table salt crystals. Manjula, R.; Karthikeyan, P.; Cikesh, P.C.; Bindiya, E.S.; \*Bhat, S. G.; Chandrasekaran, M. J. Pure Appl. Microbiol., 2014, Vol. 8 No. 1. IF:0.8
31. Community genomics involving culture independent approach for assessing the phylogenetic diversity of mangrove sediment. Vincent, H.; Nair, H. P.; \*Bhat, S. G. Indian J. Appl. Res., 2013, Vol 3(10), 29-32. (ISSN No. 2249-555X)
32. Culture independent analysis of the soil microbiome to assess microbial diversity of mangrove soil. Nair, H. P.; Vincent, H.; \*Bhat, S. G. Biogenetics J., (2013), 1(1): 1-4.
33. Effect of iron oxide on the photodegradation of linear low density polyethylene –dextrin blend. Kurian, T.; Anna Dilfi, K.F.; Subin R. S.; Bhat, S. G. IPI Journal. 2013, Vol 18(4) 16-20. IF-
34. Biocompatible polyhydroxybutyrate(PHB) production by marine *Vibrio azureus* BTK33 under submerged fermentation. Subin, R. S.; \*Bhat, S. G.; Chandrasekaran, M. Ann. Microbiol. 2014, DOI.10.1007/s13213-014-0878-z. IF:3.0
35. Application of  $\Phi$ SP-1 and  $\Phi$ SP-3 as a therapeutic strategy against *Salmonella Enteritidis* infection using *Caenorhabditis elegans* as model organism. Augustine, J.; Mridula V G.; \*Bhat, S. G. FEMS Microbiol. Lett. 2014, DOI: 10.1111/1574-6968.12493, IF:2.1
36. Induction of temperate vibriophage  $\hat{\Phi}$  KNM4 from the environmental non O1 *Vibrio cholerae* by various biotic and abiotic agents. Linda L.; Augustine, J.; \*Bhat S.G. Int. J. Sc. Res. 2014, DOI: 10.15373/22778179. IF-
37. Melanin producing *Pseudomonas stutzeri* BTCZ10 from marine sediment at 96 m depth (Sagar Sampada cruise #305). Kurian, N. K.; Nair, H. P.; \*Bhat, S. G. Int. J. Curr. Biotechnol. 2014, 2(5):6-11. IF:3.508



38. Appraisal of extraction protocols for metagenomic DNA from fish gut microbiota. Tina K.J.; Bindiya, E.S.; Subin, R.S.; \*Bhat, S. G. Int. J. Advanc. Innov. Res. 2014.vol. 3(6) 7-13. IF:0.349
39. Antibacterial potential of *Luprop stritis*-the nuisance rubber plantation pest from Western Ghats of India. Bindiya, E.S.; Alex, R.; Cikesh, P.C.; Karikeyan, P.; \*Bhat, S. G.; Chandrasekaran, M. Int. J. Advanc. Innov. Res. 2014,vol. 3(6) 7-13. IF:0.349
40. Diversity characterization of biofilm forming microorganisms in food sampled from local markets in Kochi, Kerala, India. Laxmi, M.; \*Bhat, S. G. Int. J. Recent Scien. Res. 2014, Vol.5, issue 6, pp1070-1075. DOI : [10.15373/22778179](https://doi.org/10.15373/22778179).
41. Bioactive potential of proteins from deep sea organisms. Bindiya, E.S.; Karikeyan, P.; Cikesh, P.C.; Subin, R.S.; Tina, K.J.; Chandrasekaran, M.; \*Bhat, S. G. Fish. Technol. 2014, 51;194-198. IF:0.426
42. Bioactive protein from *Loligo* sp. with antimicrobial property. Cikesh, P.C.; Karthikeyan, P.; Bindiya, E.S.; Subin, R.S.; Tina, K.J.; Chandrasekaran, M.; \*Bhat, S. G. Fish. Technol. 2014, 51; 247-251. IF:0.426
43. Evaluation of five in situ lysis protocols for PCR amenable metagenomic DNA from mangrove soils. Nair, H. P.; Vincent, H.; \*Bhat, S. G. Biotechnol. Reports, 2014, 4: 134–138. <https://doi.org/10.1016/j.btre.2014.09.008> IF:6.9
44. Physico chemical characterization of a T5-like *Salmonella* phage  $\Phi$ SP-3. Augustine, J.; \*Bhat, S.G. J. Microbial Biotechnol. Food Sc.2014, 4 (2) 102-107. doi: 10.15414/jmbfs.2014.4.2.102-107. IF:1.381
45. Trypsin Inhibitor from Edible Mushroom *Pleurotus floridanus* Active against Proteases of Microbial Origin. Ali, P.P.M.; Sapna, K.; Mol, K.R.R.; Bhat, S.G.; Chandrasekaran, M.; Elyas, K.K. Appl. Biochem. Biotechnol. 2014,173 (1), 167-178. <https://doi.org/10.1007/s12010-014-0826-1>, IF:3.0
46. Biocontrol of *Salmonella* Enteritidis in spiked chicken cuts by lytic bacteriophages  $\Phi$ SP-1 and  $\Phi$ SP-3. Augustine, J.; \*Bhat, S.G. J. Basic Microbiol. 2014, 54, 1–4. doi: 10.1002/jobm.201400257 IF:3.1
47. Bacteriophage insensitive mutants of *Salmonella* Enteritidis. Mridula, V. G.; Augustine, J.; \*Bhat, S.G. Curr. Res. Microbiol. Biotechnol. 2015, 3(1): 557-560. IF:3.5

48. Characterization of Deep Sea Fish Gut Bacteria with Antagonistic Potential, from *Centroscyllium fabricii* (Deep Sea Shark). Bindiya, E.S., Tina, K.J., Raghul, S.S. *et al. Probiotics & Antimicro. Prot.* 7, 157–163 (2015). <https://doi.org/10.1007/s12602-015-9190-x> IF:5.4
49. Evaluation of anti-inflammatory property of melanin from marine *Bacillus* spp. BTCZ31. Kurian, N. K.; Nair, H.P., and \*Bhat, S. G. *Asian J. Pharmaceut. Clinical Res.* 2015 , Vol 8, Issue 3. IF:0.51
50. Amplification and sequence analysis of phaC gene of polyhydroxybutyrate producing *Vibrio azureus* BTKB33 isolated from marine sediments. Subin, R. S.; \*Bhat, S.G., Chandrasekaran, M. *Ann. Microbiol.* 2016, 66:299–306. DOI 10.1007/s13213-015-1109-y. IF:3.2
51. Melanin and bacteriocin from marine bacteria for biocontrol of biofilm forming food pathogens. Laxmi, M.; Kurian, N. K.; Smitha, S.; \*Bhat S.G. *Indian J. Biotechnol.* 2016. Vol.15, pp392-399. IF:0.324
52. Laxmi, M., Bhat, S.G. Characterization of pyocyanin with radical scavenging and antibiofilm properties isolated from *Pseudomonas aeruginosa* strain BTRY1. *3 Biotech* 6, 27 (2016). <https://doi.org/10.1007/s13205-015-0350-1> IF:3.1
53. Bindiya ES, Bhat SG. Marine bacteriocins: a review. *J Bacteriol Mycol Open Access.* 2016;2(5):140-147. DOI: [10.15406/jbmoa.2016.02.00040](https://doi.org/10.15406/jbmoa.2016.02.00040) IF:2.8
54. Confocal and SEM imaging to demonstrate food pathogens-biofilm biocontrol by pyocyanin from *Pseudomonas aeruginosa* BTRY1. Laxmi, M.; Anju TR., \*Bhat, S. G. *Int. J. bioassays* (2017): 5218-5223. <http://dx.doi.org/10.21746/ijbio.2017.01.007>.
55. Molecular cloning and characterization of a halotolerant  $\alpha$ -amylase from marine metagenomic library derived from Arabian Sea sediments. Harisree P. Nair, Helvin Vincent, Rinu Madhu Puthusseri, Sarita G. Bhat. *3 Biotech*, (2017) Accepted for publication. (Impact factor: 0.992) *3 Biotech* (2017) 7: 65. doi:10.1007/s13205-017-0674-0 IF:3.1
56. 16S rDNA-based bacterial diversity analysis of Arabian Sea sediments: A metagenomic approach. Harisree P. Nair, Rinu Madhu Puthusseri, Helvin Vincent, Sarita G. Bhat. (2017) *Ecological Genetics and Genomics* (accepted) (Elsevier) <https://doi.org/10.1016/j.egg.2017.09.001> IF:1.9
57. Isolation, purification and characterization of a pH tolerant and temperature stable proteinaceous protease inhibitor from marine *Pseudomonas mendocina*. K. Sapna,

P. P. Manzur Ali, K. R. Rekha Mol, Sarita G. Bhat, M. Chandrasekaran & K. K. Elyas (2017) Biotechnol Lett DOI 10.1007/s10529-017-2424-0 , IF:2.72

58. Infectivity Criteria for use of  $\phi$ SEP2 and  $\phi$ SEP3 as Bio-control Agents. Sritha KS, Shemymol KA, Bhat SG (2017) J Bacteriol Mycol Open Access 5(4): 00140. DOI: 10.15406/jbmoa.2017.05.00140 IF: 2.8
59. Photoprotection and Anti-Inflammatory Properties of Non-Cytotoxic Melanin from Marine Isolate *Providencia Rettgeri* Strain BTKKS1. Kurian N. K, Bhat S. G. Biosci Biotech Res Asia 2017;14(4).DOI : <http://dx.doi.org/10.13005/bbra/2594> IF: 0.5
60. Food, Cosmetic and biological applications of characterized dopa-melanin from *vibrio alginolyticus* strain btkks3.Kurian N. K, Bhat S. G. (2018) Appl. Biol.chem. (2018) 61, pages163–171, DOI :10.1007/s13765-018-0343-y IF:3.45
61. Genomics of *Salmonella* Phage  $\Phi$ stp1 - Candidate Bacteriophage For Biocontrol. Sritha K.S. & Sarita G. Bhat . 2018. Virus Genes (2018). <https://doi.org/10.1007/s11262-018-1538-3> IF: 2.0
62. Modelling and Computational Sequence Analysis of a Bacteriocin Isolated from *Bacillus licheniformis* strain BTHT8. Jaya Gupta , Bindiya ES and Sarita G Bhat, 2018. Int. J Computational Biol. 2018;Volume 7 (Issue 1): Page 29-34. <http://ijcb.in/ijcb/v1/index.php/ijcb/article/download/103/93> IF: 1.7
63. Data on the characterization of non-cytotoxic pyomelanin produced by marine *Pseudomonas stutzeri* BTCZ10 with cosmetological importance. Kurian N. K, Bhat S. G. (2018) Volume 18, June 2018,Pages 1889-1894;<https://doi.org/10.1016/j.dib.2018.04.123>, IF: 1.2
64. Inferences of gut bacterial diversity from next-generation sequencing of 16S rDNA in deep sea blind ray - *Benthobatis moresbyi*. Tina Kollannoor Johny, Raghul Subin S. Bindiya ES. Sarita G. Bhat,2018. Ecological Genetics and Genomics.[doi.org/10.1016/j.egg.2018.07.001](https://doi.org/10.1016/j.egg.2018.07.001) , IF: 1.9
65. Data of bacterial diversity of the deep sea shark, *Centroscyllium fabricii*, Tina K J; Bindiya E S; Raghul S S; Sarita G Bhat (2018). Metabarcoding Data in Brief, <https://doi.org/10.1016/j.dib.2018.10.062> IF: 1.2
66. Comparative analysis of metagenomic DNA extraction methods from gut microbiota of zebrafish (*Danio rerio*) for downstream next-generation sequencing. D’Rose V, Johny TK, Bhat S. 2019 J App Biol Biotech. Volume: 7, Issue: 1; p 11-15; DOI: [10.7324/JABB.2019.70103](https://doi.org/10.7324/JABB.2019.70103) IF: 1.06

67. BaCf3: highly thermostable bacteriocin from *Bacillus amyloliquefaciens* BTSS3 antagonistic on food borne pathogens 3 Biotech. Bindiya E S, Tina K J, Raghul S S, Sarita G Bhat 2019. ISSN: 2190-572X (Print) 2190-5738 (Online)(2019), 9:136 <https://doi.org/10.1007/s13205-019-1639-2> IF:3.1
68. Phage Endolysins as potential antimicrobials against multidrug resistant *Vibrio alginolyticus* and *Vibrio parahaemolyticus*. Nandita Matamp, Sarita G. Bhat \* (March) Current status of research and challenges ahead. *Microorganisms*, ISSN 2076-2607 (2019), 7(3): 84, doi: [10.3390/microorganisms7030084](https://doi.org/10.3390/microorganisms7030084) .IF: 4.5
69. In vitro and in vivo Pathogenicity of MAR, Biofilm forming non-cholera Vibrios (NCV) from Asian Tiger shrimp (*Penaeus monodon*): implications for food safety and sanitation. Nandita M., and Sarita G Bhat and A. Harshan (2019) *Austin J. microbiol.* ISSN: 2471-0296, Vol5. (1): 1025, <https://pdfs.semanticscholar.org/765b/581956c5df0128d8194458f4a15238fff3b3.pdf>, IF:1.9
70. Draft Genome sequence data of T-5like Salmonella bacteriophage  $\Phi$ SP3 with demonstrated therapeutic potential, K.S Sritha, J. Augustine, S.G. Bhat (2019) *Data in Brief*, ISSN: 2352-3409, <https://doi.org/10.1016/j.dib.2019.104606>.(sept 2019) IF:1.2
71. Ultra-small pyomelanin nanogranules abiotically derived from bacteria-secreted homogentisic acid show potential applications in inflammation and cancer. Narayanan, S., Kurian, N.K. & Bhat, S.G. *BioNanoSci.* 10, 191–203 (2020). <https://doi.org/10.1007/s12668-019-00689-x> IF: 3.0
72. Genome characterization of novel lytic Myoviridae bacteriophage  $\phi$ VP-1 enhances its applicability against MDR biofilm forming *Vibrio parahaemolyticus* Nandita M., and Sarita G Bhat (2019) *Archives of virology* doi: 10.1007/s00705-019-04493-6. IF:2.7
73. Metagenomic data on bacterial diversity profiling of Arabian sea sediment by amplicon sequencing, H.P. Nair, S.G. Bhat, *Data in Brief*, ISSN: 2352-3409, (2019) <https://doi.org/10.1016/j.dib.2019.104791> IF:1.2

#### Book chapters

74. Enzyme technologies for bioconversion of food processing by-products \*Bhat, S. G.; Sukumaran, R. K. In: *Valorization of food processing by-products*. Edited by Dr. M. Chandrasekaran. 2012. Ch-10, p233-266 Pub. CRC Press. Taylor & Francis Group. ISBN-978-1-4398-4885-2.
75. Metagenomics : an overview. Vincent, H. Nair, H.P.; \*Bhat, S. G. In *Microbial bioproducts* Ed. Sarita G. Bhat and Padma Nambisan. Pp30. (2014). ISBN-978-93-80095-51-6.

76. Bacteriocins from Bacillus and their Applications. Smitha, S.; \*Bhat, S.G. In Microbial bioproducts Ed. Sarita G Bhat and Padma Nambisan. Pp47. (2014). ISBN-978-93-80095-51-6.
77. Bacterial Polyhydroxyalkanoates: Production and Applications Subin, R. S.; \*Bhat, S.G. In Microbial bioproducts Ed. Sarita G Bhat and Padma Nambisan. Pp70. (2014). ISBN-978-93-80095-51-6.
78. Bacterial Melanins. Kurian, N.K.; \*Bhat, S.G. In Microbial bioproducts Ed. Sarita G Bhat and Padma Nambisan. Pp97. (2014). ISBN-978-93-80095-51-6
79. Biocontrol of Bacterial Biofilms. Laxmi, M.; \*Bhat, S.G. In Microbial bioproducts Ed. Sarita G Bhat and Padma Nambisan. Pp134. (2014). ISBN-978-93-80095-51-6.
80. Bacterial Lipopolysaccharides. In Microbial bioproducts. Cikesh, P. C.; \*Bhat, S.G. Ed. Sarita G. Bhat and Padma Nambisan. Pp186. (2014). ISBN-978-93-80095-51-6.
81. Enzyme concepts, nomenclature, mechanism of action and kinetics, Characteristics and sources of food grade enzymes. Subin, R. S.; \*Bhat, S. G. In Enzymes in Food and Beverage Processing. Ch-1, p2-38 Edited by Dr. M. Chandrasekaran. Pub.CRC Press. 2015)Taylor & Francis Group. ISBN -13-987-1-4822-2130-5 (e-book-PDF)
82. PCR in metagenomics. Tina KJ and \*Bhat, S.G.(2017) In Book PCR: Methods and protocols. Lucília Domingues (ed.), PCR: Methods and Protocols, Methods in Molecular Biology, vol. 1620, DOI 10.1007/978-1-4939-7060-5\_17, © Springer Science+Business Media LLC 2017
83. Laxmi, M.; \*Bhat, S.G. (2018) (Chapter 14 - Biofilms in Food Industry: Mitigation Using Bacteriophage, Editor(s): Alina Maria Holban, Alexandru Mihai Grumezescu, In Handbook of Food Bioengineering, Advances in Biotechnology for Food Industry, Academic Press, 2018, Pages 393-423, ISBN 9780128114438, <https://doi.org/10.1016/B978-0-12-811443-8.00014-1>. (<http://www.sciencedirect.com/science/article/pii/B9780128114438000141>)
84. Bhat S.G., D’Rose V. (2019) Enzymes in the Design of Functional Foods or Their Constituents. In: Parameswaran B., Varjani S., Raveendran S. (eds) Green Bio-processes. Energy, Environment, and Sustainability. Springer, Singapore. DOI. [https://doi.org/10.1007/978-981-13-3263-0\\_20](https://doi.org/10.1007/978-981-13-3263-0_20)

2020 onwards

85. Arabian Sea metagenome derived -  $\alpha$ -amylase P109 and its potential applications.H.P. Nair, S.G. Bhat, Ecological Genetics and genomics, ISSN: 2405-9854 <https://doi.org/10.1016/j.egg.2020.100060> IF: 1.9
86. Antibacterial Polyelectrolytic chitosan derivatives conjugated natural rubber latex films with minimized bacterial adhesion, 2020 , Aswin Arakkal, Irthasa Aazem, Honey G, Ajith Vengellur, Sarita G Bhat and Sailaja GS, Journal of Applied Polymer Science ;<https://doi.org/10.1002/app.49608> IF: 3.46
87. Expression profile of kisspeptin2 and gonadotropin-releasing hormone2 mRNA during photo-thermal and melatonin treatments in the air-breathing catfish *Heteropneustes fossilis*, Radha Chaube,; Sandhya Sharma, Balasubramaniyan Senthilkumaran, Sarita G. Bhat, K. P. Joy, 2020. Fish Physiology and Biochemistry (accepted) Fish Physiol Biochem (2020) 46:2403–2419; IF:3.1
88. Narayanan, D., Bhat, S. G., & Baranwal, G. (2021). Characterization of innately decellularised micropattern pseudostem of *Musa balbisiana* - A non-surface functionalized 3D economic biomaterial scaffold. *The Applied Biology & Chemistry Journal (TABCI)*, 2(3), 76–88. <https://doi.org/10.52679/tabcj.2021.0013> IF: 4.07
89. Optical characterization and tunable antibacterial properties of gold nanoparticles with common proteins, JessySimon, SonyUdayan, E.S.Bindiya, Sarita G.Bhat, V.P.N.Nampoori M.Kailasnath, 2020 Analytical Biochemistry, Volume 612, 1 January 2021, 113975. <https://doi.org/10.1016/j.ab.2020.113975>; IF: 2.9
90. Isolated Compounds from the Roots of *Flabellaria paniculata* Cav. (Malpighiaceae) and their Effects on MCF-7 Breast Cancer Cells. Oluwatosin O. Johnson\*, Sarita G. Bhat , Gloria A. Ayoola , Harikrishnan Madayath, Saipriya P. Puthusseri , Herbert Coker (2021).Trop J Nat Prod Res, 4(12):1033-1038. <https://dx.doi.org/10.26538/tjnpr/v4i12.2IF>: 0.62
91. MFAP9: Characterization of an extracellular thermostable antibacterial peptide from marine fungus with biofilm eradication potential, J al Rekha mol kollakalnaduvil Raghavan, Manzur Ali Pannippara, Sapna Kesav, Abraham Mathew, Sarita G Bhat, Mohamed Hatha AA, Elyas KK, (2021) of Pharmaceutical and Biomedical Analysis, [Volume 194](https://doi.org/10.1016/j.jpba.2020.113808), 5 February 2021 <https://doi.org/10.1016/j.jpba.2020.113808>; IF: 3.209
92. Integration of heterogeneous photocatalysis and persulfate based oxidation using TiO<sub>2</sub>-reduced graphene oxide for water decontamination and disinfection. Deepthi John, Jiya Jose, Sarita G Bhat, V Sivanandan Achari. (2021) Heliyon 7(10). DOI: [10.1016/j.heliyon.2021.e07451](https://doi.org/10.1016/j.heliyon.2021.e07451) IF: 4.00
93. Selective chromogenic and fluorogenic signaling of Hg<sup>2+</sup> ions using benzothiazole – Quinolinylnyl acrylate conjugate and its applications in the environmental water samples and

- living cells. Leyana Shaji, Selva Kumar, Jiya Jose, R. Bhaskar, Vetriarasu, Sarita G Bhat, S.K. Ashok Kumar, 2022. Journal of Photochemistry and photobiology A: Chemistry 2022, <https://doi.org/10.1016/j.jphotochem.2022.114220> IF: 5.14
94. Smartphone assisted fluorescent-colorimetric probe for bismuth (III) ion and potential applications., Leyana Shaji, Selva Kumar, Jiya Jose, R. Bhaskar, Vetriarasu, Sarita G Bhat, S.K. Ashok Kumar 2022. Inorganic chemistry communications 2022, <https://doi.org/10.1016/j.inoche.2022.110252> IF: 2.49
95. Carboxymethyl chitosan capped copper oxide nanomaterials as antibacterial and antibiofilm coating for vulcanized natural rubber film. Anmiya Peter, BindiyaE.S., HoneyG., JiyaJose, Sarita G. Bhat, Honey John, Abhitha K. 2022. Nano-Structures & Nano-Objects, <https://doi.org/10.1016/j.nanoso.2022.100920>. IF: 5.7
96. Novel 3D porous aerogel engineered at nano scale from cellulose nanofibers: An effective treatment for chronic wounds. Jiya Jose, Avinash R Pai, Deepu Gopakumar, Yogesh D, Ruby V, Sarita G Bhat, Daniel P, Nandakumar Kalarikkal, Sabu Thomas. 2022. Carbohydrate Polymers 2022, 287, 119338 <https://doi.org/10.1016/j.carbpol.2022.119338>. IF: 10.75
97. A Magainin-2 like bacteriocin BpSl14 with anticancer action from fish gut *Bacillus safensis* SDG14, Bindiya Ellathuparambil Saidumohamed, Anitharaj Pottekkat Baburaj, Tina Kollannoor Johny, Unnikrishanan Babukuttan Sheela, Maya Sreeranganathan, Sarita Ganapathy Bhat, Analytical Biochemistry, <https://doi.org/10.1016/j.ab.2021.114261> IF: 2.9
98. Indian oil sardine (*Sardinella longiceps*) gut derived *Bacillus safensis* SDG14 with enhanced probiotic competence for food and feed applications, Bindiya Ellathuparambil Saidumohamed, Sarita Ganapathy Bhat, 2021 Food Research International, Volume 150, Part A, 2021, 110475, ISSN 0963-9969, <https://doi.org/10.1016/j.foodres.2021.110475>. IF:8.1
99. Multi-functional bioactive secondary metabolites derived from endophytic fungi of marine algal origin, Harikrishnan M, Saipriya P. P, Prabha Prakash, C. Jayabaskaran, Sarita G. Bhat, 2021, Current Research in Microbial Sciences, Volume 2,2021,100037,ISSN 2666-5174, <https://doi.org/10.1016/j.crmicr.2021.100037>. IF: 4.6
100. A primer on metagenomics and next-generation sequencing in fish gut microbiome research. Tina K.J, Rinu M. P, Sarita G Bhat (2021) Aquaculture research. [Volume 52, Issue10, Pages 4574-4600; https://doi.org/10.1111/are.15373](https://doi.org/10.1111/are.15373) IF :2.0
101. Enhanced CAUTI Risk due to Strong Biofilm Forming MDR Bacteria in Indwelling Urinary Catheters. Gopinathan H, Johny TK and Bhat SG (2021) Austin J Microbiol. 2021; 6(1): 1030. <https://web.archive.org/web/20210804144751/https://austinpublishinggroup.com/microbiology/fulltext/ajm-v6-id1030.pdf> IF: 1.9
102. Insights into the response of mangrove sediment microbiomes to heavy metal pollution: Ecological risk assessment and metagenomics perspectives, Rinu Madhu . Puthusseri,

Harisree Paramel Nair, Tina Kollannoor Johny, Sarita Ganapathy Bhat, 2021. Journal of Environmental Management, Volume 298,2021,113492,ISSN 0301-4797, (Aug 2021) <https://doi.org/10.1016/j.jenvman.2021.113492>. I.F-8.7

103. In vitro efficiency evaluation of phage cocktail for biocontrol of *Salmonella* spp. in food products. Sritha, S.K., and Bhat, S.G. 2021 . *Arch Microbiol* 203, 5445–5452 (2021). <https://doi.org/10.1007/s00203-021-02522-0> I.F-2.8
104. Metagenomic landscape of taxonomy, metabolism and resistome of *Sardinella longiceps* gut microbiome. Tina K.J, Rinu M. P, Sarita G Bhat (2021) *Arch Microbiol*. 2021;204(1):87. doi: 10.1007/s00203-021-02675-y. PMID: 34961896. IF: 2.8
105. CuO/AG hybrid nanomaterial coated hydrophilic natural rubber film with minimal bacterial adhesion and contact killing efficiency. Peter, A., Ramesh, M. D., Bindiya, E., Bhat, S. G., & K, A. (2023). *Results in Engineering*, 100998. doi:10.1016/j.rineng.2023.100998. IF. 5
106. Production Optimization and In Vitro Evaluation of Anti-proliferative, Anti-oxidant Anti-inflammatory Potential of the Antibacterial Peptide MFAP9. Raghavan, R.M.K., Pannippara,M.A., Kesav, S. Mathew, A., Bhat, S.G., Rafeeq, C.M., Elyas,K.K. (2022). *International Journal of Peptide Research Therapeutics*. 28,139. <https://doi.org/10.1007/s10989-022-10442-w>. IF. 2.5
107. Fibre optic silver plasmonic U-bent real time sensing response to accelerated protein conformation kinetics. Priyamvada, V. C., Udayan, S., Bindiya, E. S., Thomas, S., Bhat, S. G., & Radhakrishnan, P. (2022). *Sensing and Imaging*, 23(1). doi:10.1007/s11220-022-00405-2 IF. 2.81
108. Carboxymethyl Chitosan capped copper oxide nanomaterials as antibacterial and antibiofilm coating for vulcanized natural rubber film. Peter, A., Bindiya, E., Honey, G., Jose, J., Bhat, S. G., John, H., & Abhitha, K. (2022). *Nano-Structures & Nano-Objects*, 32, 100920. doi:10.1016/j.nanoso.2022.100920, IF: 5.7
109. 3D Structure Elucidation and Appraisal of Mode of Action of a Bacteriocin BaCf3 with Anticancer Potential Produced by Marine *Bacillus amyloliquefaciens* BTSS3. Saidumohamed, B., Johny, T., Raveendran, A., Sheela, U., Sreeranganathan, M., Sasidharan, R., & Bhat, S. (2022). *Re:GEN Open*, 2(1), 45-56. doi: 10.1089/regen.2021.0041
110. Appraisal of cytotoxicity and acrylamide mitigation potential of L- asparaginase SlpA from fish gut microbiome. Tina Kollannoor Johny, Rinu Madhu Puthusseri, Bindiya Ellathuparambil Saidumohamed, Unnikrishnan Babukuttan Sheela, Saipriya Parol



Puthusseri, Raghul Subin Sasidharan, Sarita G Bhat 2022. *Appl Microbiol Biotechnol* 106, 3583–3598 (2022). <https://doi.org/10.1007/s00253-022-11954-7> IF: 5.2

111. Statistical design for biogenesis of melanin nanoparticles from producer strain *Pseudomonas stutzeri* BTCZ 109 through Taguchi DOE. Dayana Mathew and Sarita G Bhat, 2022. *Biocatalysis and Agricultural Biotechnology*. <https://doi.org/10.1016/j.bcab.2022.>, IF: 4.66
112. Structural, magnetic and antibacterial properties of manganese-substituted magnetite ferrofluids. Babukutty, B., Ponnamma, D., Nair, S. S., Jose, J., Bhat, S. G., & Thomas, S. (2023b). *International Journal of Minerals, Metallurgy and Materials*, 30(7), 1417–1426. doi:10.1007/s12613-022-2594-1 . IF - 4.8
113. Structural influence of chromium substituted magnetite ferrofluids on the optical and antibacterial characteristics. Babukutty, B., Ponnamma, D., Nair, S. S., Jose, J., Bhat, S. G., & Thomas, S. (2023a). *Materials Today Communications*, 34, 105439. doi:10.1016/j.mtcomm.2023.105439. IF - 3.8
114. Monoclinic yttrium oxide quantum dots surface modified by biotin for bioimaging applications. Nath, S. G., Jose, J., Bins, K. C., Bhat, S. G., & Anila, E. I. (2023). *Surfaces and Interfaces*, 40, 103112. doi:10.1016/j.surfin.2023.103112. IF - 6.2
115. Smartphone assisted fluorescent-colorimetric probe for bismuth (III) ion and potential applications. Shaji, L. K., Jose, J., Bhaskar, R., Selva Kumar, R., Vetriarasu, V., Bhat, S. G., & Ashok Kumar, S. K. (2023). *Inorganic Chemistry Communications*, 147, 110252. doi:10.1016/j.inoche.2022.110252. IF - 3.8
116. Selective chromogenic and fluorogenic signalling of Hg<sup>2+</sup> ions using a benzothiazole-quinoliny acrylate conjugate and its applications in the environmental water samples and living cells. Shaji, L. K., Selva Kumar, R., Jose, J., Bhaskar, R., Vetriarasu, V., Bhat, S. G., & Ashok Kumar, S. K. (2023). *Journal of Photochemistry and Photobiology A: Chemistry*, 434, 114220. doi:10.1016/j.jphotochem.2022.114220. IF - 4.3
117. A porphyrin-based NIR fluorescent probe for Bi<sup>3+</sup> and potential applications. Somkuwar, P., Bhaskar, R., Ramasamy, S. K., Shaji, L. K., Bhat, S. G., Jose, J., & Kalleshappa, A. K. (2023). *Journal of Fluorescence*. doi:10.1007/s10895-023-03315-y. IF - 2.7
118. Whole genome sequence analysis enabled affirmation of the probiotic potential of marine sporulator *Bacillus amyloliquefaciens* BTSS3 isolated from *Centrosyllium fabricii*. D’Rose V., & Bhat, S. G. (2023). *Gene*, 864, 147305. doi:10.1016/j.gene.2023.147305. IF - 3.5

119. Immunomodulation of gastrointestinal tract by probiotics: An insight into the role of *Lactobacillus* sp. and *Bacillus* sp. on immunity. D’Rose, V., & Bhat, S. G. (2023). Journal of BioScience and Biotechnology, 12(1), Article 1. <https://editorial.uniplovdiv.bg/index.php/JBB/article/view/444>
120. Biofilm inhibition on natural rubber by hydrophilic modification using carboxymethyl chitosan stabilised high energy faceted silver nanoparticles. Peter, A., Sadanandan, S., Bindiya, E. S., Mohan, N., Bhat, S. G., & Abhitha, K. (2023). *Carbohydrate Polymer Technologies and Applications*, 6, 100357. IF - 5.5
121. Investigating the Immunomodulatory Effects of Antigenic PLGA Nanoparticles and Nutritional Synergy in *Caenorhabditis elegans*, Adheena Panangattu Baburajan, Sarita Ganapathy Bhat, Sreeja Narayanan *BioNanoScience*, 10.1007/s12668-024-01330-2, (Dec 2023). **IF: 3.0**
122. Demonstrating the immunostimulatory and cytokine-augmentation effects of bacterial ghosts on natural killer cells and *Caenorhabditis elegans*, Sreeja Narayanan, Adheena Panangattu Baburajan, Mumtaz Muhammad, Andrea Joseph, Praveen Kumar Vemula, Sarita Ganapathy Bhat, 2023. *Biotechnology and Bioengineering*, Volume 121, Issue 3 p. 959-970, Dec 2023; <https://doi.org/10.1002/bit.28619>, (Dec 2023). **IF: 3.**
123. In vitro evaluation of anticancer properties of Mn-substituted magnetite ferrofluids with human osteosarcoma and cervical cancer cells; Blessy Babukutty, Chandini C. Mohan, Deepalekshmi Ponnamma, Swapna S Nair, Jiya Jose, Sarita G Bhat, Sabu Thomas, 2023. *Journal of Magnetism and Magnetic Materials*, Volume 588, Part A, 15 December 2023, 171405 (IF- 3.097)
124. Recent advances in the design and development of bioink formulations for various biomedical applications, Ji ya Jose, Anmiya Peter, Kamal Y. Thajudeen, Maria De Lourdes Gomes Pereira, Athira V P, Sarita G. Bhat, Hamy Michel, *Results in Engineering*, Volume 22, 2024, 102060, ISSN 2590-1230, <https://doi.org/10.1016/j.rineng.2024.102060>. (IF-6.0)
125. Identification of pigmented extremophilic bacteria from mangrove soil with antibiofilm activity on food pathogens. E.S. Bindiya, Menon Divya Ramesh, B. Arya, Sarita G. Bhat, (2024) *The Microbe*, Volume 4, 2024, 100136, ISSN 2950-1946, <https://doi.org/10.1016/j.microb.2024.100136>. (I.F.-)
126. Investigating the pro-inflammatory differentiation of macrophages with bacterial ghosts in potential infection control. Pradeep A, Mathew AI, Vemula PK, Bhat SG, Narayanan S.

Arch Microbiol. 2024 Jul 27;206(8):361. doi: 10.1007/s00203-024-04089-y. PMID: 39066807; PMCID: PMC7616332. IF – 2.6

127. Amikacin sulphate loaded natural rubber latex films: characterization and antibacterial performances. Honey Gopinathan, Jiya Jose, Anmiya Peter, Chandini C. Mohan, Harishma P. C, Sunil K. Narayanankutty, Sarita G Bhat, Results in Engineering, Volume 23, 2024, 102795, ISSN 2590-1230, <https://doi.org/10.1016/j.rineng.2024.102795> IF – 6.0
128. A modified fluorescent probe protocol for evaluating the reactive oxygen species generation by metal and metal oxide nanoparticles in Gram-positive and Gram-negative organisms, Anmiya Peter, Jiya Jose, Sarita G. Bhat, Abhitha K, Results in Engineering, 2024, 102925, ISSN 2590-1230, <https://doi.org/10.1016/j.rineng.2024.102925>. IF – 6.0

#### Book chapters

129. Tripti Raghavendra, Sarita G. Bhat, (2022) Chapter 2 - Enzyme immobilized nanomaterials, Editor(s): Guillermo Raul Castro, Ashok Kumar Nadda, Tuan Anh Nguyen, Xianghui Qi, Ghulam Yasin, In Micro and Nano Technologies, Nanomaterials for Biocatalysis, Elsevier, 2022, Pages 17-65, ISBN 9780128244364, <https://doi.org/10.1016/B978-0-12-824436-4.00007-1>. (<https://www.sciencedirect.com/science/article/pii/B9780128244364000071>)
130. Sritha, K.S., Bhat, S.G. (2023). Phages and Their Derived Proteins As Promising Alternatives to Mitigate MDR *Salmonellae*. In: Mothadaka, M.P., Vaiyapuri, M., Rao Badireddy, M., Nagarajrao Ravishankar, C., Bhatia, R., Jena, J. (eds) Handbook on Antimicrobial Resistance. Springer, Singapore. [https://doi.org/10.1007/978-981-16-9723-4\\_36-1](https://doi.org/10.1007/978-981-16-9723-4_36-1)
131. Bindiya, E.S., Sreekanth, P.M., Bhat, S.G. (2023). Conservation and Management of Mangrove Ecosystem in Diverse Perspectives. In: Sukumaran, S.T., T R, Keerthi. (eds) Conservation and Sustainable Utilization of Bioresources. Sustainable Development and Biodiversity. Springer, Singapore. [https://doi.org/10.1007/978-981-19-5841-0\\_13](https://doi.org/10.1007/978-981-19-5841-0_13)
132. Jiya Jose, V.P. Athira, Hamy Michel, A.R. Hafeela, Sarita G. Bhat, Sabu Thomas, L. Pereira Maria, Chapter 1 - Hydrogels: An overview of the history, classification, principles, applications, and kinetics, Editor(s): Sabu Thomas, Bhasha Sharma, Purnima Jain, Shashank Shekhar, Sustainable Hydrogels, Elsevier, 2023, Pages 1-22, ISBN 9780323917537, <https://doi.org/10.1016/B978-0-323-91753-7.00005-3>.  
<https://www.sciencedirect.com/science/article/pii/B9780323917537000053>

133. Shilja Sajeevan, Hamy Michel, Jiya Jose, Sarita G. Bhat, Chapter 6 - Immobilization for enhancement of laccase reusability, Editor(s): Deepti Yadav, Tukayi Kudanga, In Progress in Biochemistry and Biotechnology, Bacterial Laccases, Academic Press, 2024, Pages 125-140, ISBN 9780323918893, <https://doi.org/10.1016/B978-0-323-91889-3.00005-4>. (<https://www.sciencedirect.com/science/article/pii/B9780323918893000054>)
134. Chandini C. Mohan, Ramya R. Prabhu, Sapna K, Arya S. Nair, Blessy Babukutty, Sarita G. Bhat, Biowaste derived wastewater treatment technologies. In. I. Krupa, D. Ponnamma, S. Bhagyaraj (eds), Current Advancements in Nanomaterials for Wastewater Remediation: Challenges and Mitigation Strategies, Elsevier Inc. (In press, expected publication date 25 Jan 2025)
135. Bioactive Secondary Metabolites From Endophytic Fungi of Marine Algae. Harikrishnan M and Sarita G Bhat (2024) In [Natural Products: Phytochemistry, Botany and Metabolism of Alkaloids, Phenolics and Terpenes](#). Springer. Accepted

#### Patent awarded/Filed

136. The research work on " Biocompatible ZnS: Nanocrystals conjugated with L-Citrulline as fluorescent probes for DNA visualization and for finger print analysis in forensic studies" Augustine, S. M.; Joseph, A. V.; Bhat, S.G., and Jayalakshmi, S. Patent application No.4900/CHE/2012 (2012). Patent awarded
137. The research on: Three Dimensional Micropattern Scaffold And A Method Of Preparation Thereof. Dr.Sarita G Bhat and Dr Deepa Narayanan. INDIAN PATENT APPLICATION NUMBER – [202041053036](#). Patent filed

#### Some of the Full papers in National/International Conference

1. Biodegradable plastics based on linear low density polyethylene. Anna Dilfi, K.F.; Kurian, T.; Bhat S. G. Proceedings of the 22<sup>nd</sup> Kerala Science congress, 28-31 Jan, (2010) KFRI, Peechi pg410-411. (Impact factor: not available)
2. Genotypic approach in characterisation of polyhydroxyalkanoates (PHAs) accumulation in *Vibrio* sp. isolated from marine sediments. Subin, R.S.; Varghese, S. M.;\*Bhat,S. G. In: Proceedings of the National Symposium on Emerging Trends in Biotechnology, 2011.pp25-36. ISBN-978-93-80095-30-1. (Impact factor: not available)
3. Screening of various biological sources for antibacterial peptides. Mol, R. K.R.; Ali, M.P.P.; Mathew, A.; Smitha, S.; Sapna, K.; Bhat, S. G.; Elyas, K.K. In: Proceedings of the National

Symposium on Emerging Trends in Biotechnology, 2011. Pp113-118. ISBN-978-93-80095-30-1. (Impact factor: not available)

4. Partial characterisation of antibacterial protein from *Bacillus licheniformis*. Smitha, S.; \*Bhat, S. G. In: Proceedings of the National Symposium on Emerging Trends in Biotechnology, 2011. Pp119-127. ISBN-978-93-80095-30-1. (Impact factor: not available)
5. Phenotyping, genotyping and virulence gene profiling of two *Salmonella* strains isolated from chicken gut. Augustine, J.; Varghese, S.M.; \*Bhat, S. G.; and Hatha, A.A.M.; In Proceedings of the National Symposium on Emerging Trends in Biotechnology, 2011. 128-135. ISBN-978-93-80095-30-1. (Impact factor: not available)
6. Prevalence of virulence genes among non-O1 *Vibrio cholerae* isolated from marine environment. Louis, L.; Augustine, J., and \*Bhat, S. G. In: Proceedings of the National Symposium on Emerging Trends in Biotechnology, 2011. Pp136-143. ISBN-978-93-80095-30-1. (Impact factor: not available)
7. Variation in CRISPRs in *Salmonella* Enteritidis and its Bacteriophage Insensitive Mutant (BIM): Indication of its role in phage – host interaction. Mridula, V.G.; Augustine, J.; Varghese, S.M.; \*Bhat, S.G. In: Proceedings of the National Symposium on Emerging Trends in Biotechnology, 2012. Pp85-91. ISBN-978-93-80095-39-4. (Impact factor: not available)
8. Metagenomic approach for analysis of bacterial diversity of Mangalavanam mangrove soil. Nair, H.P.; Vincent, H.; and \*Bhat, S. G. In: Proceedings of the National Symposium on Emerging Trends in Biotechnology, 2012. Pp40-45. ISBN-978-93-80095-39-4. (Impact factor: not available)
9. High Performance Liquid Chromatography analysis of LPS isolated from *Salmonella* Typhi. Cikesh, P. C.; \*Bhat, S. G. In: Proceedings of the National Symposium on Emerging Trends in Biotechnology, 2012. Pp61-67. ISBN-978-93-80095-39-4. (Impact factor: not available)
10. Melanin production by marine *Vibrio alginolyticus* BTKK1. Kurian, N.K.; \*Bhat, S.G. In: Proceedings of the National Symposium on Emerging Trends in Biotechnology, 2012. pp 36-39. ISBN-978-93-80095-39-4. (Impact factor: not available)
11. Lytic Phage  $\Phi$ SP-2 induced variability in CRISPR regions of Bacteriophage Insensitive Mutants (BIMs) of *Salmonella* Enteritidis S37. Mridula, V.G.; Augustine, J.; and \*Bhat, S.G. In Proceedings of International Conference on Earth, Environment and Life sciences (EELS-2014) Dec. 23-24, 2014 Dubai (UAE) pp101-104. (Impact factor: not available)

12. Melanins with antibiofilm and anticancer activities from marine *Pseudomonas stutzeri* BTCZ10. Kurian, N.K.; Laxmi, M.; Nair, H.P.; \*Bhat, S.G. In Proceedings of India International Science Festival 2015 at IIT Delhi. (Impact factor: not available)
13. Honey Gopinathan, Athira A. S., Sarita Ganapathy Bhat (2023). "Virulence Profile Of Strong Biofilm Forming Multi Drug Resistant *Klebsiella* spp. From Catheter Associated Urinary Tract Infection". Conference abstract in the Proceedings of 35th Kerala Science Congress.
14. Honey G., Athira A. S., Sarita G. Bhat (2023). "PCR Detection Of Virulence Factors In Strong Biofilm Forming Multi-Drug Resistant *Klebsiella* spp. From Catheter-Associated Urinary Tract Infection." in the book of abstracts of "Intercollegiate Paper Presentation Competition (IPPC-2023)- Recent Advances in Life Sciences" Organized by Department of Biochemistry Sree Sankara College Kalady-683574, Kerala, India
15. Nivedya Mohan, Sarita Ganapathy Bhat (2023). "Evaluation Of Bacteriophages As A Biotherapeutic For Chronic Wound Infections". Conference abstract in the Proceedings of 35th Kerala Science Congress.
16. Nivedya Mohan, Sarita Ganapathy Bhat (2023). "Evaluation of bacteriophage vB\_PaeM\_PKMS3 as a biotherapeutic for *Pseudomonas aeruginosa* induced chronic wound infections" in the book of abstracts of "4th International Conference on Bacteriophage research and Antimicrobial Resistance" (ICBRAR-2023)
17. Sisira V. S., Venetia D' Rose, Dr. Sarita G. Bhat\*. A preliminary study on the effect of *Bacillus sp.* in zebrafish (*Danio rerio*) liver after ethanol treatment. Conference abstract in the proceedings of Kerala Science Congress (February 10-14, 2023) organized by Kerala State Council for Science, Technology and Environment, Kerala Forest Research Institute and Mar Baselios Christian College of Engineering, Kuttikkanam, Idukki (POSTER presentation).
18. Sisira V. S., Venetia D' Rose, Dr. Sarita G. Bhat\*. "Histopathological alterations in liver anatomy after ethanol exposure in adult zebrafish (*Danio rerio*)" in the book of abstracts of "Intercollegiate Paper Presentation Competition (IPPC-2023)- Recent Advances in Life Sciences" Organized by Department of Biochemistry Sree Sankara College Kalady-683574, Kerala, India (Oral presentation).
19. Sumi J. Menachery., Dr. Sarita G. Bhat\* (2023). "Modeling LPS inflammation to study gut dysbiosis and its effect on gut microbiome in zebrafish (*Danio rerio*) model".Conference abstract in the proceedings of 35th Kerala Science Congress
20. Chandini. C. Mohan and Sarita G. Bhat, (2023) Formulation and characterisation of myo-inositol loaded nano emulsions as self-emulsifying hydrophilic drug carriers for skin delivery, Conference abstract in the proceedings of 35th Kerala Science Congress

21. Akshaya Joy, Chandini C. Mohan, Sarita G Bhat, "Design and formulation of cellulose-based emulsion patch by Response Surface analysis", in the book of abstracts of "Intercollegiate Paper Presentation Competition (IPPC-2023)- Recent Advances in Life Sciences" 28 - 29 March 2023 Organized by Department of Biochemistry Sree Sankara College Kalady-683574, Kerala, India
22. Chandini C Mohan, Sarita G. Bhat, Nano Innovation Challenge, NANOFEST 2023, organized by International and Inter University Centre for Nanoscience and Nanotechnology (IIUCNN) & School of Nanoscience and Nanotechnology (SNSNT) in Collaboration with Business Innovation and Incubation Centre (BIIC) on 09th OCTOBER 2023 (Nano Innovation Award for third best idea)
23. Bindiya. E. S, Swathikrishna. R. K, Sarita. G. Bhat, Comparative Genomic Analysis Of The Non-Dairy Probiotic *Bacillus Safensis* SDG14 With Selected Dairy And Non-Dairy Probiotics With Emphasis On Enzymes In Leloir Pathway, Conference abstract in the proceedings of 35th Kerala Science Congress
24. Parvathy Rajesh, Sarita Ganapathy Bhat (2023). "Application of Lytic Phages against MDR *E.coli* isolated from Antibiotic Stress environment" in the book of abstracts of "4th International Conference on Bacteriophage research and Antimicrobial Resistance" (ICBRAR-2023).

#### Number of Books Published (Edited)

- i. Proceedings of the National Symposium on Emerging Trends in Biotechnology, 1-2 September 2011, Ed. Sarita G.Bhat. Published by the Directorate of Public relations and Publications for the Department of Biotechnology, Cochin University of Science and Technology, Kochi-682022, Kerala, India. ISBN-978-93-80095-30-1
- ii. Proceedings of the National Symposium on Emerging Trends in Biotechnology, 12-13 December 2012. Ed. Sarita G Bhat and Padma Nambisan. Published by the Directorate of Public relations and Publications for the Department of Biotechnology, Cochin University of Science and Technology, Kochi-682022, Kerala, India. ISBN-978-93-80095-39-4.
- iii. Proceedings of the National Symposium on Emerging Trends in Biotechnology, 22-23 January 2014. Ed. Sarita G Bhat and Padma Nambisan. Published by the Directorate of Public relations and Publications for the Department of Biotechnology, Cochin University of Science and Technology, Kochi-682022, Kerala, India. ISBN-978-93-80095-47-9.
- iv. Microbial bioproducts Ed. Sarita G Bhat and Padma Nambisan. Published by the Directorate of Public relations and Publications for the Department of Biotechnology, Cochin University of Science and Technology, Kochi-682022, Kerala, India. ISBN-978-93-80095-51-6.

## Ph.D supervision/awarded

### I. A. Ph.Ds awarded for work carried out under my guidance-18

1. Studies on ribotyping, integron genes and pathogenicity of marine vibrios-Bernard Rajeev S.W. (Awarded 2008)
2. Purification and characterization of Vibriophage isolated from Mangalavanam mangroves-Archana Kishore. (Awarded 2008)
3. Studies on isolation and molecular characterization of plasmids from Vibrios-Manjusha S. (Awarded 2008)
4. Characterization of polyhydroxyalkanoates accumulating vibrios from marine benthic environments and production studies of polyhydroxyalkanoates by *Vibrio* sp. BRKB33-Raghul Subin S (Awarded February 2013)
5. Physicochemical and molecular characterization of bacteriophages  $\phi$  SP-1 and  $\phi$  SP-3, specific for pathogenic *Salmonella* and evaluation of their potential as biocontrol agent. Jeena Augustine (awarded April 2013)
6. Integron study, molecular typing and characterization of Salmonella serotypes isolated from seafood and poultry- Siju M Varghese (awarded Oct, 2014)
7. Characterization and Pathogenicity of *Vibrio cholerae* and *Vibrio Vulnificus* from Marine environments- A Vijaya Joseph (awarded Oct, 2014)
8. Characterization of Bacteriocins from *Bacillus Licheniformis* strain BTHT8 and *Bacillus subtilis* BTFK 101 isolated from Marine sediment- Smitha S. (April, 2015)
9. Characterization and Applications of two protease enzymes obtained by culture dependent and culture independent approaches from Mangalavanam mangroves. – Helvin Vincent (May 2015)
10. Differential induction, isolation, physicochemical and molecular characterization of temperate phages of environmental *Vibrio cholerae* as evidence of phage mediated horizontal gene transfer-Linda Louis (Feb, 2016)
11. Metagenomics of marine and Mangrove sediments: Phylogenetic diversity and characterization of amylase obtained by functional screening-Harisree P. Nair (May, 2016)



12. Melanin from Marine Bacteria: Characterization, Production and Applications-Noble-K Kurian(May-2016)
13. Strategies for controlling biofilm using bioagents: use of Pyocyanin, rhamnolipids, melanin and phages -Laxmi M. (June-2016)
14. Comprehensive molecular approaches to explore Bacteriophage Insensitive Mutants (BIMs) generated by phage infections in *Salmonella* Enteritidis S37 and S49-Mridula VG. (Feb, 2017)
15. Bacteriocins BaCf3 and BpSl14 with anticancer and antibiofilm potential from probiotic *Bacillus amyloliquefaciens* BTSS3 and *Bacillus pumilus* SDG14 isolated from gut of marine fishes: Enhanced Production, Purification and Characterization. Bindiya E.S. (July, 2018)
16. Metagenomics of *Sardinella longiceps* gut microbiome and expression of L-asparaginase contig (Tina KJ) Jan 2021
17. Salmonella lytic phages and recombinant endolysin LyspStp1 as antibacterial biocontrol agent (Sritha KS) April, 2021
18. Bacteriophages as arsenal against biofilm forming MDR non-cholera Vibrios and *in-silico* prediction of endolysins to augment protein engineering, (Nandita M.) (July 2021)
19. Optimization, characterization and large-scale production of melanin nanoparticles from *Pseudomonas stutzeri* strains BTCZ109 & BTCZ305 and its application as stimuli responsive drug delivery vehicle. (Dayana Mathews), Reg #5772; August 2024
20. Genomic analysis of the probiotic *Bacillus amyloliquefaciens* BTSS3as prophylactic for Inflammatory Bowel Disease (IBD) in Zebrafish (*Danio rerio*) model (Venetia D’Rose ) Reg No:5093; September 2024

#### B. Ph.Ds awarded under joint guidance with Dr. M. Chandrasekaran (retd)-6

21. Bioremediation of hydrocarbons by *Lysinibacillus fusiformis* BTTS10. Roselin Alex (Awarded October, 2013)
22. Isolation, Purification, characterization and application of proteinaceous protease inhibitor from marine bacterium *Pseudomonas mendocina* BTMW 301. Sapna K. (awarded Dec, 2013)
23. Studies on Halocin production by haloarchaea *Natrinema* sp. BTSH10.-P. Karthikeyan (awarded April, 2014)

24. Protease production by haloarchaea *Natrinema* sp. BTSH10 isolated from salt pan of South India. - R. Manjula (June 2015)
25. Lipase Production by immobilized marine *Bacillus smithi* BTMS11- Doles PE (Sept, 2016)
26. Studies on treatment of the effluent of a commercial flight kitchen using conventional activated sludge –(Sajan VL)August, 2018

C. Ph.D thesis submitted (Full supervision) for evaluation in 2024

27. Meta-omic insights into the response of Mangalavanam and Puthuvypin mangrove sediment microbiomes to heavy metal pollution. (Submitted in May 2024) Rinu Madhu P. Reg #5061

II. Current Ph.D research supervision with broad area of research

	Name of Student	Reg. no.	Main supervisor	Co-supervisor	Publications	Remarks
1	Honey G*, CSIR-fellow	5086	Dr. Sarita G Bhat	-	2 publ.	<i>Writing thesis</i>
2	Sumi Menacherry U-JRF (f.t)	6184	Dr. Sarita G Bhat	-	-	Coursework completed
3	Parvathy Rajesh (DST-Inspire fellow) (f.t)	6255	Dr. Sarita G Bhat	-	-	Coursework completed
4	Nivedya Mohan CSIR-JRF(f.t)	6366	Dr. Sarita G Bhat	Dr. Abhitha K., PSRT	1 commun.	Coursework completed
5	Sisira VS UGC, SGC (f.t)	6706	Dr. Sarita G Bhat	Dr. Parvathi A DBT	-	Coursework completed
6	Anmiya Peter U-JRF (f.t)	6097	Dr. Abhitha K., PSRT	Dr. Sarita G Bhat	4 publ.	<i>Writing thesis</i>
7	Aiswarya U-JRF (f.t)		Dr. Sreeja Narayanan -DBT- Welcome Thrust fellow-DBT	Dr. Sarita G Bhat	1 publ. + 1 communi.	Coursework completed
8	Rakhey Vysakh NH DST- WOS-A Fellow (f.t)		Dr. Sarita G Bhat	-	-	Course work ongoing
10	Hareeshma H. (f.t) (2034)	7035	Dr. Abhitha K., PSRT	Dr. Sarita G Bhat	-	Course work completed

11	Neha Srinivas (f.t) (S2024)		Dr. Sarita G Bhat	Dr. Harisree Nair P, Anglia Ruskin University, UK		
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### Completed and ongoing projects

Projects(s) completed by Investigator.					
S. No	Title of Project	Funding agency	Amount (Rs)	Principle investigator(PI) /Co-PI	Duration From To
1	Screening of marine microbes for bioactive compounds from backwaters and near shore waters of Kerala and Lakshadweep islands	CSIR (Co-I)	15,29,000	Dr. M. Chandrasekaran-PI. Dr.Sarita G Bhat- Co-I	2001-2004
2.	Molecular cloning and expression of alkaline protease gene from marine fungus	DBT, New Delhi (Co-I)	25,96,464	Dr. M. Chandrasekaran-PI. Dr. Sarita G Bhat- Co-PI Dr.Elyas KK-CoPI	2002-2005
3.	Screening of marine microbes for bioactive compounds from backwaters and near shore waters of Kerala and Lakshadweep islands, (Phase II)	CSIR, ( Co-I)	12,00,000	Dr. M. Chandrasekaran-PI.  Dr.Sarita G Bhat- Co-I	2004-2008
4.	Role of benthic Vibrios in the mineralization process in the marine environments No, MoES/11-MRDF/1/29/P/ 06 dated 5.12.2006	DOD-MoES (PI )	18,02,263	Dr.Sarita G Bhat- PI Dr. M. Chandrasekaran- Co-I.	2006-2011
5.	Isolation, characterization and application of protease inhibitors from marine microorganisms" No: BT/PR7906/AAQ/03/ 281/ 2006 Dated 07-03-2007; No. BT/PR7906/AAQ/ 03/281 /2006 dated	DBT (PI)	34,00,000	Dr.Sarita G Bhat- PI Dr.Elyas KK-CoPI	2007-2011
6	Screening and Isolation of Potential bioactive molecules from the Deep sea organisms No.MoES/10-MLR/2/2007 dt 13.02-2008	MoES (Co-PI)	1,37,32,500	Dr.Sarita G Bhat- PI Dr. M.Chandrasekaran Co-PI.	2007-2012
7	Whole genome analysis of marine microbial community for novel feed enzymes F. No. 41-527/2012/(SR) dated 17-July, 2012	UGC PI	14,40,800	Dr.Sarita G Bhat- PI	July 2012- Dec 2015

8	Screening and Isolation of Potential bioactive molecules from the Deep sea organisms including bacteria No.MoES/10-MLR/2/2012 dt 13.02-2008	MoES-PI	87,50,000	Dr.Sarita G Bhat- PI Dr. M. Chandrasekaran-Co-PI.	2012-2016
9.	Salmonella lytic bacteriophages for application as biocontrol agents F.No.009/SRSHS/2012/KCSTE dated 20 <sup>th</sup> Nov, 2013	KSCSTE (Govt. of Kerala) PI	17,40,600	Dr. Sarita G Bhat- PI	2014-2017
10	Riverine biodiversity monitoring with reference to mangroves in comparison with pre-flood data	Kerala State Biodiversity Board	2,40,000/-	Dr. Sarita G Bhat -PI Dr .Sreekanth P.M-Co-PI	20-12.2018 to 30.6.2019
11	Metagenomic analysis of soil microbial diversity in post flood mangroves	Kerala State Biodiversity Board	6,95,000/-	Dr. Sarita G Bhat -PI Dr .Bindiya E.S –Co-PI	20-12.2018 to 30.6.2019
12	Development of Antibacterial Catheters for Preventing Nosocomial Infections from Therapeutically Modulated Natural Rubber Latex Formulation	DBT- BIOCARE	54,00,000 /-	Dr. Sailaja G. S, PI Dr. Sarita G Bhat, Co-PI Dr. Ajith Vengellur, Co-PI	2016-2019
13	Characterization of gonadotropin releasing hormone and kisseptin systems in the catfish: <i>Heteropneustess fossilis</i> : crosstalks and interactions in the control of gonadotropin secretion	DST	49,85,000 /-	Dr. K.P Joy, PI Dr. Sarita G Bhat, Co PI	2017-2020
14	Search for novel anticancer Secondary metabolite from endophytic fungi of selected marine algae and evaluation of their mechanism of action	DBT	41,784,00/- (IISc)+ 30,732,00 /- (DBT, CUSAT)	Dr. Jayabhaskaran (IISc) Dr. Sarita G. Bhat (CUSAT)	2017-2021
15	Probiotic modulation of immune response, gut diversity and gut-brain axis in inflammatory/stress models of <i>Danio rerio</i> (zebrafish)	UGC-FRPS Mid-career award project	10,0000/-	Dr. Sarita G Bhat PI	2021-24
Projects(s) being pursued by Investigator.					
16	"Menstrual cup for plastic free periods and environment	KSCSTE	17,17,000/-	Dr. Abhita k, PI, PSRT Dr.Sarita G Bhat, Co-PI	2022-2025
17	Application of bacterial pigments as dietary supplements as well as therapeutic modules for inflammation	RUSA 2.0	35,80,000 /-	Dr. Sarita G Bhat PI Dr. Ajith Vengellur, Co-PI Dr. Baby Chakrapani , Co-PI	2023-2025

18	"Development of a decentralized technique for the bioremediation of plastic waste using plastic eating insects larvae"	DBT Recommended , Dec 2023	About 30,85000 + Overheads for three years	Dr. Suja Devipriya, PI Dr. Sarita G Bhat, CoPI	2024-2027
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#### Post-doctoral research Mentoring

##### a) Name of Post-doctoral fellows (completed)

- i. Dr. Deepa Narayanan UGC-Kothari PDF
- ii. Dr. Sreeja Narayanan UGC-Kothari PDF
- iii. Dr. Priji Prakasam N-PDF
- iv. Dr. Chitra Pushpam KSCSTE-PDF
- v. Dr. Toshvin Johnson (Nigeria) FICCI-RLF (6m)
- vi. Dr. Subha Pillai CUSAT-PDF
- vii. Dr. Sreekanth P.M. CUSAT-PDF discontinued after 1 year
- viii. Dr. Tripti Raghavendra DBT-RA
- ix. Dr. Jiya Jose ICMR-RA
- x. Dr. Bindiya ES CUSAT-PDF
- xi. Dr. Suja E. ICMR-RA
- xii. Dr. Bindiya ES RUSA 2.0 RA
- xiii. Dr. Sapna Keshav CUSAT-PDF
- xiv. Dr. Chandini C. Mohan UGC-Kothari PDF

##### b) Name of Post-doctoral fellows (ongoing)

- i. Dr. Tripti Raghavendra CM's Nava Kerala PDF

#### Memberships of professional bodies, Editorship of Journals, etc

- Life Member of the Society for Biotechnologists (India).
- Member of the Indian Society for Technical education (ISTE)
- Life Member of the Association for the promotion of DNA Fingerprinting and other DNA technologies (ADNAT)
- Life member of the Association of Fisheries Technologists
- Life Member of the Biotech Research Society, India (BRSI)
- Life member of Society for Bacteriophage research and therapy (SBRT)

Dr. Sarita G Bhat  
Professor

Cochin-22  
Date: 07<sup>th</sup> October-2024