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**Name:** Dr Pallavi Baliga

**Designation :** Assistant Professor Stage -I

**Date of Entry into Service :** 16.8.2022

**Email:** pallavi\_baliga@staloysius.edu.in

**Mob:** 9743520166

**D.O.B:** 30. 1.1986

**Education:**

Mangalore University, Mangalagangothri, Karnataka, India-574199

* Ph.D. Biosciences
* M.Sc. Biotechnology
* B.Sc. Biotechnology, Chemistry, Botany

Qualified CSIR-UCG-NET Joint Eligibility Test in 2008

**Awards**

* CSIR JRF for Doctoral studies
* DST-SERB NPDF for Post-Doctoral studies
* DST AWSAR Award for popular article on post-doctoral research

**Teaching experience**

1. **One and a half year** ofteaching experienceat the **PG department of Biochemistry, St Aloysius College, Mangalore,** India (2008-2009)
2. **Six months** of teaching experience for the **Biotechnology Finishing School** at the **PG department of Biotechnology, St Aloysius College, Mangalore, India** (2015)
3. Working as Assistant Professor at PG department of Biochemistry, St Aloysius College, Mangalore, India (August 2022-Till date)

**Research experience**

1. INDO-UK BBSRC project entitled “Novel molecular approaches for advancing prediction and mitigation of disease outbreaks in aquaculture for small-scale farmers” at the Department of Aquatic Animal Health Management, College of Fisheries (2016-2019)
2. DST -SERB project entitled “Identification, cloning, characterization and assessment of the potentiality of an Aeromonas phage endolysin as an antimicrobial agent against multi drug resistant *Aeromonas hydrophila*”

**Publications**

1. Puneeth, TG and **Pallavi, B** and Vilasini, U and Kushala, KB and Nithin, MS and Girisha, SK and Suresh, T Large scale mortality in cultured Nile tilapia (*Oreochromis niloticus*): natural co-infection with *Aeromonas hydrophila* and *Streptococcus iniae*. Iranian journal of veterinary research, Volume 23, Year 2022, Pages 219--228
2. **Pallavi Baliga**, Puneeth Thadooru Goolappa, Malathi Shekar, S.K. Girisha. Cloning, Characterization, and Antibacterial Properties of Endolysin LysE against Planktonic Cells and Biofilms of *Aeromonas hydrophila*. Probiotics and Antimicrobial Proteins. 2022; 1-9. https://doi.org/10.1007/s12602-021-09880-7
3. **Pallavi Baliga**, Malathi Shekar, Puneeth TG, Girisha SK. Investigation into the prevalent CRISPR–Cas systems among the *Aeromonas* genus. Journal of Basic Microbiology 2021;1–9. https://doi.org/10.1002/jobm.202100234
4. **Pallavi Baliga**, Puneeth Thadooru Goolappa, Malathi Shekar, S.K. Girisha, Ramesh K.S., Vilasini Udyavara, M.N. Venugopal. (2021) Bacterial community changes in *Penaeus vannamei* Boone, 1931 surface and rearing water during *Enterocytozoon hepatopenaei* infection. Asian Fisheries Science. 34(2021), 168-180. https://doi.org/10.33997/j.afs.2021.34.2.006
5. **Baliga, P.,** Shekar, M. & Kallappa, G.S. (2021) Genome-wide identification and analysis of chromosomally integrated putative prophages associated with clinical *Klebsiella pneumoniae* strains. Current Microbiology. https://doi.org/10.1007/s00284-021-02472-2
6. **Pallavi Baliga**, Puneeth Thadooru Goolappa, Malathi Shekar, S.K. Girisha, Ramesh K.S., Vilasini Udyavara, M.N. Venugopal. (2021) Bacterial communities associated with Penaeus vannamei Boone, 1931 surface and its rearing water in biofloc culture system. Asian Fisheries Science. 34(1), 34-46. https://doi.org/10.33997/j.afs.2021.34.1.004
7. **Pallavi, B**., Puneeth, T., Shekar, M. and Girisha, S. (2021) Isolation, characterization, and genomic analysis of vB ‐ AhyM ‐ AP1, a lytic bacteriophage infecting *Aeromonas hydrophila*. Journal of Applied Microbiology. https://doi.org/10.1111/jam.14997
8. Puneeth TG, **Baliga P**, Girisha SK, Shekar M, Nithin MS, Suresh T, Naveen Kumar BT. (2021) Complete genome analysis of a red seabream iridovirus (RSIV) isolated from Asian seabass (*Lates calcarifer*) in India. Virus Research. 2; 291:198199. https://doi.org/10.1016/j.virusres.2020.198199
9. **Baliga P**, Shekar M, Venugopal MN (2019) Detection and characterization of clustered regularly interspaced short palindromic repeat-associated endoribonuclease gene variants in *Vibrio parahaemolyticus* isolated from seafoods and environment. Veterinary World. 12(5):689-695. https://doi.org/10.14202/vetworld.2019.689-695
10. **P Baliga**, M Shekar, ST Ahamed, MN Venugopal (2019) Antibiotic resistance pattern and its correlation to the presence of tdh gene and CRISPR-Cas system in *Vibrio parahaemolyticus* strains isolated from seafood. Indian Journal of Fisheries 66 (2), 101-108. https://doi.org/ 10.21077/ijf.2019.66.2.86920-14
11. **Baliga, P.,** Shekar, M., & Venugopal, M. N. (2019). Investigation of direct repeats, spacers and proteins associated with clustered regularly interspaced short palindromic repeat (CRISPR) system of Vibrio parahaemolyticus. Molecular genetics and genomics : MGG, 294(1), 253–262. https://doi.org/10.1007/s00438-018-1504-8
12. **P Baliga**, Malathi Shekar, Moleyur Nagarajappa Venugopal. Potential outer membrane protein candidates for vaccine development against the pathogen *Vibrio anguillarum*: A reverse vaccinology-based identification. Current Microbiology (2018) 75: 368. DOI 10.1007/s00284-017-1390-z
13. **B. Pallavi**, KM Shankar, P.B. Abhiman, and Ahmed Iqlas (2015). Identification of putative genes involved in parasitism in the anchor worm, *Lernaea cyprinacea* by de novo transcriptome analysis. Experimental Parasitology, Volume 153, Pages 191–197. doi: 10.1016/j.exppara.2015.03.014
14. **B. Pallavi**, K. M. Shankar, R. P. Sathish, K. S. Ramesh and K. N. Prabhudev. Evaluation of loss in terms of mortality and growth reduction in Catla *catla* (Hamilton, 1822) under experimental infection of anchor worm. Indian Journal of Fisheries, 63(1): 132-134, 2016.
15. **Pallavi B**, Shankar KM and Abhiman PB. In silico prediction of potential vaccine candidates of *Lernaea cyprinacea* the ectoparasite of the Indian Major Carps. Indian Journal of Biotechnology Vol 15, October 2016, pp 601-603.
16. **Pallavi Baliga**, Shankar K.M., Abhiman P.B, Iqlas Ahmed. Molecular studies for identification of the fish parasite *Lernaea*. Indian Journal of Fisheries. 64(2): 76-82, 2017 DOI: 10.21077/ijf.2017.64.2.60131-12
17. **Pallavi B**, Shankar KM, Sathish RP and Abhiman PB. Zymography to study protease profile of the fish ectoparasite *Lernaea*. Environment and ecology, 34 (2): 454—456, 2016.
18. **Pallavi B**., Shankar K.M., Ahmed I. and Abhiman P.B. (2015). Identifying critical stages in the life cycle of the parasite *Lernaea* (Linnaeus, 1758) by infection studies in *Poecilia reticulata*. International Journal of Parasitology Research, Volume 7, Issue 1, Pages, 140-142.
19. Abraham Asha, **Baliga Pallavi**. Production, Purification and Characterization of extracellular L-Asparaginase having anti neoplastic activity from *Fusarium* sp. Journal of Advance Research in Biological Sciences. 2012; 4(4): 293-301.

**Popular article**

Pallavi Baliga, Malathi Shekar & Girish Shivani Kallappa. Bacteriophage Endolysins-Alternative to Antibiotics. SR Vol.57(10) [October 2020] 41-44.

“**Virus a Bane or Dark Knight?**” selected for the AWSAR award 2020.

**Book chapter**

**Baliga, P.** (2025). Introduction to antimicrobial resistance: A modern plague. In *AI-driven breakthroughs in antimicrobial resistance* (p. 26). IGI Global. https://doi.org/10.4018/979-8-3693-7550-1.ch001

Bandodkar, V. V., Moger, V. S., & **Baliga, P.** (2025). Antioxidant defense mechanisms: Enzymatic and non-enzymatic. In *The role of reactive oxygen species in human health and disease* (p. 38). IGI Global. https://doi.org/10.4018/979-8-3693-7919-6.ch002

Moger, V. S., Gujaran, H., Gowda, S., **& Baliga, P.** (2024).Edible mushrooms: A sustainable superfood for the future. In *Mycological inventions for sustainable agriculture and food production* (pp. 349–376). IGI Global. https://doi.org/10.4018/979-8-3693-8201-1.ch016

Harishkumar Madhyastha, Remya Varadarajan, **Pallavi Baliga**. Nanoparticles in Focus: Understanding Genotoxicity and Carcinogenicity. Materials Research Foundations, Vol. 171, pp 251-278, 2024

**Conference Proceedings**

* **Pallavi Baliga**, Nisha Rodrigues, and Asha Abraham. Isolation and characterization of extracellular L-asparaginase from fungi. International Conference on Biotechnology, Bangalore Bio 2008, 24-26 April, Bangalore.
* **Best Oral presentation award** for the paper entitled “Microbiome changes in *Litopenaeus vannamei* shrimp surface and rearing water in relation to *Enterocytozoon hepatopenaei* infection” at Virtual conference on Aquaculture techniques and Disease Management-ATDM, 2020, organized by Sathyabhama institute of science and technology.

**Membership in Professional Bodies**

Society For Bacteriophage Research and Therapy

Life Member (SBRTLM00084)

**NPTEL Online Certification courses completed**

* RNA Biology conducted by IIT Madras, Jan-Apr 2024 (12-week course)
* Genome Editing and Engineering conducted by IIT Guwahati, Jul-Oct 2023 (12-week course)
* Cell culture technologies conducted by IIT Kanpur, Aug-Oct, 2024 (8week-course )