



Dr. R Sumitha, M.Sc., M.Phil., PGDIT., Ph.D.

Assistant Professor

Department of Biomedical Sciences

Sri Ramachandra College of Biomedical Sciences, Technology and Research

I am currently working as an Assistant Professor at Sri Ramachandra Institute for Higher Education and Research (DU). Holding a position of Assistant Dean of students for Faculty of Biomedical Sciences and Technology and Faculty of Environmental Health Sciences from 2020 till date. I have authored two books and have 19 publications in indexed journals. My area of expertise for academics is Microbiology, Immunology, and Genetics. Area of clinical focus is cytogenetics and Molecular Diagnostics (Was an active Team member in Cytogenetic and Molecular Cytogenetic in the Department of Human Genetics From 2007-2010).

Research interests

Medical and Applied Microbiology, Microbiome and diseases, Marine Biotechnology, Cancer Biology, Molecular immunology, Drosophila Biology.

Research Team



Research Scholar Ms Januki Kalai, a Medical Microbiologist with extensive hands on experience handling human samples, particularly urine samples for research projects. She has published a paper titled ‘Susceptibility Profile of Nitrofurantoin and Fosfomycin among Carbapenem-Resistant *Enterobacteriaceae* isolates in UTI from a Tertiary Care Hospital’. Currently, She is pursuing a full time Ph.D. at Sri Ramachandra Institute of Higher Education and Research. Her research work focuses on investigating the microbiome and metabolome of the vagina in cases of Premature Rupture of Membrane (PROM) and Preterm Premature Rupture of Membrane (PPROM), compared to healthy controls and assessing the potential interventions of Probiotics using *In Silico* analysis.

Publications (Journals)

1. Sumitha, R., Banu, N., Vijayalakshmi, S., & Krithika, V. (2021). In vitro Toxicity Evaluation of Sterol Isolate from Echinoderm *Stellaster equestris* against Human Peripheral Blood. *International Journal of Pharmaceutical Investigation*, 11(2), 184–188. <https://doi.org/10.5530/ijpi.2021.2.33>
2. Reshman, F Deepa Parvathi V and Sumitha, R , . (2015). In-Vivo Toxicity Assessment of Aspartame in *Drosophila melanogaster* and *Danio rerio*. *Indian Journal of Science and Technology*, 8(1), 1–7. <https://doi.org/10.17485/ijst/2015/v8i34/70677>
3. Sekar, P. V., Parvathi, V. D., & R, S. (2019). Green nanotechnology in cadmium sulphide nanoparticles and understanding its toxicity and antimicrobial properties. *Biomedical Research*, 30(5). <https://doi.org/10.35841/biomedicalresearch.30-19-324>
4. Parvathi, V. D., Rajagopal, K., & Sumitha, R. (2016). Standardization of Alternative Methods for Nanogenotoxicity Testing in *Drosophila melanogaster* Using Iron Nanoparticles: A Promising Link to Nanodosimetry. *Journal of Nanotechnology*, 2016, 1–10. <https://doi.org/10.1155/2016/2547467>
5. Deepa Parvathi V, Boominathan J, SridharKumar S, Sumitha R. Induction and evaluation of inflammatory markers by zinc oxide nanoparticles: A comparative study using in vitro and in vivo approaches. *Biomed. Res.* 2019;30:194-8. Parvathi, V. D., Rajagopal, K., Pandya, J., Lincoln, B., & Sumitha, R. (2015). Synthesis, characterization and in vitro toxicity assessment of nano iron. *International Journal of Nanoparticles*, 8(3/4), 302. <https://doi.org/10.1504/ijnp.2015.073733>
6. Bhaskar, B., & Sumitha, R. (2022). Isolation and Identification of Pathogenic Microorganisms associated with Electronic Devices from Healthcare Professionals in and around Chennai. *Journal of Pure and Applied Microbiology*, 16(2), 1010–1017. <https://doi.org/10.22207/jpam.16.2.25>
7. Sekar, P. V., Parvathi, V. D., & Sumitha R. (2022). Isolation, Identification and Analysis of Novel Metabolites from Soil Samples (Microbial Co Culture) of Cardamom Plantations Western Ghats, India. *Research Journal of Pharmacy and Technology*, 1953–1959. <https://doi.org/10.52711/0974-360x.2022.00325>
8. Sumitha R, Parvathi VD, Banu N. Effect of sterol isolate from echinoderm *Stellaster equestris* on zebrafish (*Danio rerio*). *Inter. J. Pharma. Sci. Research.* 2019;10:3234-40.
9. Ponnudurai, R., Srinivasan, B., Sumitha, R., Koshy, T., Paul, S. D., Thiruvikraman, N., & Rani, A. (2012). Klinefelter's syndrome (mosaic) with chromosome 9 inv and schizophrenia. *Indian Journal of Psychiatry*, 54(1), 88. <https://doi.org/10.4103/0019-5545.94655>
10. Sumitha, R. S. R., Dharshana, M. D. M., Banu, N. B. N., & Vijayalakshmi, S. V. S. (2022). In vitro Antimicrobial Evaluation of an Isolated Compound from Sea Star *Stellaster Equisteris*. *Biomedical & Pharmacology Journal*, 15(2), 925–933. <https://doi.org/10.13005/bpj/2427>
11. Sumitha, R., Parvathi, V. D., & Banu, N. (2017). Cytotoxicity Testing of Star Fish *Stellaster equestris* Extracts on Pa1 Celline. *Research Journal of Pharmacy and Technology*, 10(9), 2851. <https://doi.org/10.5958/0974-360x.2017.00502.9>

12. Raman, S., Priyanka, Deepa Parvathi and Sumitha R . (2013). *In vivo and in vitro genotoxicity analysis of silver nitrate*.
<https://www.ou.edu/journals/dis/DIS96/Sumitha%2040.pdf>
13. Banu, N. (2017). Novel Natural Products from Marine Sea Stars. *Current Trends in Biomedical Engineering & Biosciences*, 2(4).
<https://doi.org/10.19080/ctbeb.2017.02.555592>
14. Parvathi, V. D., Rajagopal, K., Pandya, J., Lincoln, B., & Sumitha, R. (2015b). Synthesis, characterization and in vitro toxicity assessment of nano iron. *International Journal of Nanoparticles*, 8(3/4), 302. <https://doi.org/10.1504/ijnp.2015.073733>
15. Prerana P, Jeyasree MG, Sumitha R*. Overview on Evolving Variants of Novel Coronavirus and Control Measures in India. *International Journal of Pharmaceutical Investigation*.2023.13(3) 373-380.
16. Vijayakrishnan S R, Deepa Parvathi V, R Sumitha*. Isolation, Characterization and Evaluation of Plastic Degrading Properties of Soil Biofilms Collected from Chennai District. *Asian Journal of Pharmaceutical Research*.2023. 13(4): 1-6.

Publications (Books and Monographs):

S. No.	Name of Author (s)	Title of Chapter	National/ International (Specify)	Title of Book	Publisher details	Year
1.	V Deepa Parvathy, R Sumitha and Smitha	Microbiology for Nurses	National	Microbiology for Nurses	Publisher Pearson ISBN 978-93-325- 2527- 6	2014
2.	R Sumitha and N Banu	Current protocols in Immunology and immuno technology	National	Current protocols in Immunology and immuno technology	Digital Age Publishers (ISBN no. 978-93-84692-02-5.)	2017