



Centre for Research & Development

Research Supervisor (Guide) Profiles

Discipline of Supervision: **Genetics**



Dr. Ashok D

Assistant Professor
Department of Life Sciences
School of Biological and Forensic Sciences

Areas of Specialisation:

Environmental Toxicology, Zebrafish Biology, Heavy Metal Toxicity & , Bioaccumulation, Behavioral Genetics, Fish Physiology, Metabolism and Environmental Stress

Dr. Ashok D. is an Assistant Professor in the Department of Life Sciences at Kristu Jayanti (Deemed to be University), Bengaluru, with over 15 years of teaching and research experience. He holds a Ph.D. from Bharathiar University, with research expertise in neurodegenerative enzymes of *Danio rerio* (zebrafish), and a Master's degree in Applied Genetics from Bangalore University. His major research interests include environmental toxicology, ecotoxicology, heavy metal toxicity, genotoxicology, fish physiology and metabolism, evolutionary genetics, and gene regulation and expression in zebrafish. His research focuses on understanding the biological impacts of environmental contaminants on aquatic organisms, with particular emphasis on zebrafish as a model organism and heavy metal contamination in mining-impacted ecosystems, including the Kolar Gold Fields region. He has published 12 research articles and authored two books. He has presented research at academic conferences and contributed to academic activities through participation in Boards of Examiners and other institutional responsibilities. His current research integrates biochemical, molecular, physiological, and ecological approaches to investigate aquatic toxicity, bioaccumulation, environmental health, and sustainable approaches to managing contaminated ecosystems.

Selected Publications:

1. Saraswathi, S., Venkataravanappa, J. T., Nambiar, C., Saji, S., Kori, V., Murthy, M. N., ... **Ashok, D.** & Murthy, C. D. S. (2026). Plant-derived neuroprotective compounds and nanoformulations targeting Parkinson's disease: a semi-systematic review of mechanisms and therapeutic potential. *Metabolic Brain Disease*, 41(1). <https://doi.org/10.1007/s11011-026-01868-y>
2. Arunkumar, S., Jayaprakash, **Ashok, D.**, Jude, A. L. C., & Hariprasad, T. P. N. (2025). Karyotype and Chromosome Characterization of *Hersilia savignyi* (Araneae: Hersilidae). *Cytology and Genetics*, 59(3), 321–327. <https://doi.org/10.3103/s0095452725030028>
3. Tavarekere Venkataravanappa, J., Raavi, V., Balakrishna, S., Kothegala Chendrashekaraiah, P., Prabhakara Gowda, S., **Ashok, D.**, ... Surendranath, A. R. (2025). Role of the TLR4 pathway in the development of chronic suppurative otitis media. *Human Gene*, 45, 201433. <https://doi.org/10.1016/j.humgen.2025.201433>