



Centre for Research & Development

Research Supervisor (Guide) Profiles

Discipline of Supervision: **Biochemistry**



Dr. C C S Vasundhara

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

Areas of Specialisation:

Infectious disease; Medicinal chemistry

Dr.C C S Vasundhara research focus lies in exploring the therapeutic potential of medicinal plants for the prevention and management of non-communicable diseases such as diabetes and cardiovascular diseases, by investigating bioactive compounds derived from traditional herbal sources. It also aims at isolating and characterizing novel phytochemicals with anti-inflammatory, antioxidant, and anti-diabetic properties, and at identifying natural alternatives or complementary therapies that can enhance treatment effectiveness and reduce side effects on par with conventional treatments. I have also published peer-reviewed articles that bridge ethnobotany, pharmacology, and clinical research, paving the way for the integration of medicinal plants into modern healthcare strategies for NCDs.

Selected Publications:

1. Reena Joy, A., Gayathri Devi, S., Samuel, S., **Vasundhara, C. C. S.**, and Priyadharshini, M. S. (2025). Exploring the Therapeutic Potential: Investigating the Synthesis, Characterization and in vitro Anti-Diabetic Efficacy of Silver Nanoparticle Ethanolic Extract from Boerhavia diffusa. Research Journal of Biotechnology, 10(20), 296. <https://doi.org/10.25303/2010rjbt2960304>
2. Veena, G. O., Gayathri, D. S., Shubashini, K. S., and **Vasundhara, C. C. S.** (2025). In vitro anti diabetic activity of PVA encapsulated silver nanoparticles of ethanolic extract of Pisonia grandis leaves. Research Journal of Biotechnology, 20(4), 50–60. <https://doi.org/10.25303/204rjbt050060>
3. Joy, R.A., Devi, G.S., **Vasundhara, C.C.S.** and Priyadharshini, M.S. (2024). Effect of biologically synthesised silver nanoparticles from ethanolic extract of Boerhavia diffusa on high fat diet and streptozotocin-nicotinamide induced obese and diabetic rats, African Journal of Biological Sciences, 6(14); 11071 – 11087. <https://doi.org/10.48047/AFJBS.6.14.2024.11071-11087>