Name Surname
Senthilkumar Palanisamy

Doctorate
Biotechnology

Education
PhD, Biotechnology, Karpagam University 2009-2014
MSc , Biotechnology, Bharathiar University, 2005-2007
BSc, Plant Biology and Plant Biotechnology, Bharathiar University, 2002-2005

Experience
Assistant Professor - Dr. G. R. Damodaran College of Science, Coimbatore, TN, India
Assistant Professor - Nehru Arts and Science College, Coimbatore, TN, India
Assistant Professor - Kongunadu Arts and Science College, Coimbatore, TN, India

Research Interests
- Syntheis and characterization of Nanomaterials for biological applications
- Development of smart nanomaterial for food preservation and packaging.
- Screening, characterization and evaluation of novel antidiabetic and antibiofilm compounds against human pathogens from marine resources
- Toxicological assesment

Last 5 Publications

1. Senthilkumar, P., Kumar, B. K. S., Sivakumar, G., Selvan, S., & Lee, J. (2025). Advancing marine cellulose-based packaging: A review on sustainable biorefinery perspectives. *Biomass and Bioenergy, 197*, 107849. https://doi.org/10.1016/j.biombioe.2024.107849.

2. Senthilkumar, P., Kumar, B. K. S., Senthilkumar, D., Ajith, S. J., Sreedharan, S., Pathrose, J. M., Pitchumani, G. L., Ganesan, N., Venkatachalam, S., Saravanan, B., Lee, J., & Bharathi, D. (2025). Enhancing tomato shelf life using isolated cellulose fibers from Asian Palmyra palm coated with garlic oil. Food Chemistry, 466, 142163. https://doi.org/10.1016/j.foodchem.2024.142163.

3. Senthilkumar, P., Kumar, B. K. S., Vetrivel, A., Michael, R. J., Babu, N., Nallamuthu, S. S., Saravanan, K., Venkatachalam, S., Kumar, R. J. N., Selvaraju, G. D., Selvakesavan, R. K., Lee, J., & Bharathi, D. (2024). Nanoplastics in heat-sensitive food packaging: A review of migration, detection, and health and environmental impacts. Food Control, 111002. https://doi.org/10.1016/j.foodcont.2024.111002.

4. Senthilkumar, P., Bangaru, G., Bharathi, D., Varnan, N., Venkatachalam, S., Kuppuswamy, K., Selvaraju, G. D., Ranjith, D. S., & Selvakesavan, R. K. (2024). Preparation of cellulose fiber loaded with CuO nanoparticles for enhanced shelf life and quality of tomato fruit. Materials, 17, 2823. https://doi.org/10.3390/ma17082823.

5. Senthilkumar, P., Lee, J., Selvaraju, G. D., Selvakesavan, R. K., Venkatachalam, S., & Bharathi, D. (2024). Unlocking sustainable solutions: Nanocellulose innovations for enhancing the shelf life of fruits and vegetables – A comprehensive review. *International Journal of Biological Macromolecules, 261*, 129592. https://doi.org/10.1016/j.ijbiomac.2024.129592.

Patents

1. Senthilkumar,P., (Inventor). (2021, October 1). Anti-microbial chitosan-based nanoparticles compositions and method for fabrication thereof. India Patent No. 202111040350.

2. Senthilkumar,P., (Inventor). (2022, September 16). Chitosan-based biodegradable active films for food and drug packaging. India Patent No. 202241050733.

3. Senthilkumar,P., (Inventor). (2024, January 26). Method of synthesis and characterization of cobalt ferrite with gold hybrid nanomaterial for antifungal activity. India Patent No. 202341090146.

Awards

Green synthesis of Gold nanoparticles from Gelidiella acerosa (Red seaweed) and their antidiabetic activity on Streptozotocin-induced diabetic rats. F.NO: 4-4/2015-16 (MRP/UGC–SERO). University Grants Commission (UGC), New Delhi, Government of India, 2016 – 2018,