

## **Dr. PAVIDHARSHINI S**

*Address for correspondence:* Plot 2B, 18A, EB colony 3<sup>rd</sup> street, 2<sup>nd</sup> cross street, Adambakkam, Chennai-600088.

*Email id:* [pavidharshiniselva58@gmail.com](mailto:pavidharshiniselva58@gmail.com)

**ORCHID ID:** 0000-0002-2729-5019

***Citations: 492, h-index: 9, Cumulative impact factor: 89.1***



## **PROFESSIONAL PROFILE**

I am Dr. Pavidharshini S, currently serving as an Assistant Professor in the PG & Research Department of Biotechnology at Mohamed Sathak College of Arts and Science, Chennai. I hold a Ph.D. in Biotechnology from Vellore Institute of Technology (VIT), Vellore.

My academic interests focus on teaching, mentoring, and advancing research in biotechnology, with particular emphasis on food biotechnology and functional food systems. I am committed to guiding undergraduate and postgraduate students toward research excellence and fostering collaborative scientific contributions.

## **RESEARCH INTEREST**

- Food Biotechnology & Functional Foods
- Protein–Polysaccharide Interactions and Complex Coacervation
- Lipid Structuring
- Biopolymer Gels, Aerogels, and Eutectogel Systems
- Food-grade Emulsifiers and Fat Replacers
- Food Safety, Pathogen Detection, and Biosensors
- Sustainable and Low-Calorie Food Product Development

## EDUCATION

### **Ph.D. in Biotechnology** (*October 2025*)

Vellore Institute of Technology (VIT), Vellore. Dissertation: “*Exploring Gel-Based Low-Fat Cocoa Butter Substitutes and Complex Coacervate as an Emulsifier for the Production of Dark Chocolates.*”

### **M.Sc. (Integrated) in Biotechnology** (*April 2018*)

Vellore Institute of Technology (VIT), Vellore

## PROFESSIONAL & ACADEMIC WORK EXPERIENCE

### **Assistant Professor**

PG & Research Department of Biotechnology, Mohammed Sathak College of Arts and Science, Chennai – 600119

*July 2025 – Present*

- Engaged in teaching undergraduate and postgraduate courses in Biotechnology.
- Guiding and mentoring students in academic research and project work.
- Actively involved in departmental academic and research activities.

### **Ph.D. Research Fellow (Teaching-cum-Research Assistant)**

School of Biosciences and Technology, Vellore Institute of Technology (VIT), Vellore

*December 2018 – February 2025*

- Conducted doctoral research on “*Exploring Gel-Based Low-Fat Cocoa Butter Substitutes and Complex Coacervate as an Emulsifier for the Production of Dark Chocolates.*”
- Assisted in teaching undergraduate and postgraduate laboratory courses.
- Published and contributed to research manuscripts in the field of Biotechnology.

## LANGUAGES

- **English** – Speaking and Writing
- **Tamil** – Speaking and Writing

## KEY SKILLS

- Protein and polysaccharide extraction and purification
- Gelation, complex coacervation, and rheological analysis
- Chocolate formulation and fat polymorphism studies
- Thermal, textural, and physicochemical characterization
- Scientific writing, peer review, and manuscript preparation
- Excellent presentation and communication abilities
- Efficient and student-focused teaching approach

## TEACHING EXPERIENCE

- **Biological Chemistry** – Undergraduate Level (Department of Biotechnology)
- **Molecular Genetics** – Postgraduate Level (Department of Biotechnology)
- **Stem Cell Biology**- Postgraduate Level (Department of Biotechnology)
- **Environmental Biotechnology**- Undergraduate Level (Department of Biotechnology)
- **Microbiology**- Postgraduate Level (Department of Biotechnology)
- **Project Thesis Guidance** – Undergraduate and Postgraduate Level (Department of Biotechnology)

## RESEARCH AWARDS

- **Raman Research Award** for High-Impact Publication, *Vellore Institute of Technology (VIT), Vellore.*

## FACULTY DEVELOPMENT PROGRAMME (FDP)

- Participated in the Faculty Development Programme on “*Future Ready Faculty: Enhancing Academic Excellence and Student Engagement*”, organized by the Internal Quality Assurance Cell (IQAC), held from 21–25 July 2025 at Mohamed Sathak College of Arts and Science, Chennai – 600119.

## CONFERENCES

- **Organizing Member and Participant**, 3rd International Conference on “Unraveling Therapeutic Resources from Nature’s Treasure”, organized by the Department of Biosciences in association with IQAC, Mohamed Sathak College of Arts & Science, held on 13–14 August 2025 (Virtual Mode).

## RESEARCH PUBLICATIONS

- **Cumulative Impact Factor:** 89.1
- **International Publications:** 13
- **National Publications:** Nil
- **First Author Publications:** 6
- **Second Author Publications:** 5
- **Others:** 2

## LIST OF RESEARCH PUBLICATIONS

1- Selvasekaran, P., & Chidambaram, R. (2024). Pea protein isolate-kappa-carrageenan complex coacervate as a lecithin substitute and their effect on physical properties, polymorphism, and melting behaviour of dark chocolates. *Food Hydrocolloids*, 157. <https://doi.org/10.1016/j.foodhyd.2024.110404>

**(IMPACT FACTOR-12.4)**

2- Kumar, M., Selvasekaran, P., Chidambaram, R., Zhang, B., Hasan, M., Prakash Gupta, O., Rais, N., Sharma, K., Sharma, A., Lorenzo, J. M., Parameswari, E., Deshmukh, V. P., Elkelish, A., Abdel-Wahab, B. A., Chandran, D., Dey, A., Senapathy, M., Singh, S., Pandiselvam, R., ... Amarowicz, R. (2023). Tea (*Camellia sinensis* (L.) Kuntze) as an emerging source of protein and bioactive peptides: A narrative review. *Food Chemistry*, 428. <https://doi.org/10.1016/j.foodchem.2023.136783>

**(IMPACT FACTOR- 9.8)**

3- Selvasekaran, P., & Chidambaram, R. (2022). Bioaerogels as food materials: A state-of-the-art on production and application in micronutrient fortification and active packaging of foods. *Food Hydrocolloids*, 131. <https://doi.org/10.1016/j.foodhyd.2022.107760>

**(IMPACT FACTOR- 12.4)**

4- Kumar, M., Selvasekaran, P., Kapoor, S., Barbhai, M. D., Lorenzo, J. M., Saurabh, V., Potkule, J., Changan, S., ElKelish, A., Selim, S., Sayed, A. A. S., Radha, Singh, S., Senapathy, M., Pandiselvam, R., Dey, A., Dhumal, S., Natta, S., Amarowicz, R., & Kennedy, J. F. (2022). Moringa oleifera Lam. seed proteins: Extraction, preparation of protein hydrolysates, bioactivities, functional food properties, and industrial application. *Food Hydrocolloids*, 131. <https://doi.org/10.1016/j.foodhyd.2022.107791> (**IMPACT FACTOR- 12.4**)

5- Joseph, C., Batra, R., Selvasekaran, P., & Chidambaram, R. (2022). Low calorie cocoa-based products: a short review. *Journal of Food Science and Technology*, 59. <https://doi.org/10.1007/s13197-021-05223-0> (**IMPACT FACTOR- 3.3**)

6- Selvasekaran, P., & Chidambaram, R. (2021). Advances in formulation for the production of low-fat, fat-free, low-sugar, and sugar-free chocolates: An overview of the past decade. *Trends in Food Science and Technology*, 113, 315–334. <https://doi.org/10.1016/j.tifs.2021.05.008>

(**IMPACT FACTOR – 15.4**)

7- Selvasekaran, P., & Chidambaram, R. (2021). Food-grade aerogels obtained from polysaccharides, proteins , and seed mucilages : Role as a carrier matrix of functional food ingredients. *Trends in Food Science & Technology*, 112, 455–470. <https://doi.org/10.1016/j.tifs.2021.04.021>

(**IMPACT FACTOR- 15.4**)

8- Muthukumar, J., Selvasekaran, P., Lokanadham, M., & Chidambaram, R. (2020). Food and food products associated with food allergy and food intolerance – An overview. *Food Research International*, 138. <https://doi.org/10.1016/j.foodres.2020.109780>

(**IMPACT FACTOR- 8.0**)

## **BOOK CHAPTERS**

1- John Britto, CJ., Antony John, ADS., Jayakumar, A., Selvasekaran, P., Chidambaram,R., Zheng, H. (2023). Nanotechnology applications for food safety: Benefits and risks. In: Arun Sharma, P.S. Vijayakumar, Er. Pramod K Prabhakar, Kumar, R. (Eds), Nanotechnology Applications for Food Safety and Quality Monitoring (pp. 3-30) <https://doi.org/10.1016/B978-0-323-85791-8.00021-5>

2- Selvasekaran, P. *et al.* (2021). Fungal Exopolysaccharides: Production and Biotechnological Industrial Applications in Food and Allied Sectors. In: Yadav, A.N. (Eds), Recent Trends in Mycological Research, Fungal Biology (pp. 311- 357). [https://doi.org/10.1007/978-3-030-68260-6\\_12](https://doi.org/10.1007/978-3-030-68260-6_12)

3- Selvasekaran, P., & Chidambaram, R. (2020). Agriculturally Important Fungi for Crop Protection. In: Yadav, A., Mishra, S., Kour, D., Yadav, N., Kumar, A. (Eds), *Agriculturally Important Fungi for Sustainable Agriculture, Fungal Biology* (pp. 1-53). [https://doi.org/10.1007/978-3-030-48474-3\\_1](https://doi.org/10.1007/978-3-030-48474-3_1)

4-Logeshwaran,A., Selvasekaran,P., & Chidambaram,R.(2020). Infant milk formulas. In T.J. Guti´errez (Eds.), *Food science, Technology and Nutrition for Babies and Children* (pp.3-34). [https://doi.org/10.1007/978-3-030-35997-3\\_2](https://doi.org/10.1007/978-3-030-35997-3_2).

5- Sekar, P., Selvasekaran, P., Kar, A., Varalwar, T., Godli, C., & Chidambaram, R. (2020). Lactose-free food products for lactose intolerant children. In T. J. Guti´errez (Ed.), *Food science, technology and nutrition for babies and children* (pp. 143–168). [https://doi.org/10.1007/978-3-030-35997-3\\_7](https://doi.org/10.1007/978-3-030-35997-3_7)