**Dr. S.D. Saraswathy, M.Sc., Ph.D.,**
**Associate Professor**

## Contact

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## Academic Qualifications: M.Sc., Ph.D. (Biochemistry)

| S. No. | Institution / Place | Degree Awarded | Year | Field of Study |
|---|---|---|---|---|
| 1. | University of Madras | M. Sc., | 1993-1995 | Biochemistry |
| 2. | University of Madras | Ph. D., | 1996-2001 | Biochemistry |

## Teaching & Research Experience: 19 Years

| S. No. | Designation | Year | Department/University |
|---|---|---|---|
| 1. | Associate Professor | Feb 2020 to till date | Department of Biomedical Science, Bharathidasan University, Trichy. |
| 2. | Assistant Professor | Sep 2007 to Feb 2020 | Department of Biomedical Science, Bharathidasan University, Trichy. |
| 3. | Lecturer | Jun 2004 to Apr 2005 | Department of Biochemistry, Alpha Arts & Science College, Chennai. |
| 4. | Lecturer | Jun 2001 to Feb 2003 | Department of Biochemistry, Prince Shri Venkateswara Arts & Science College, Chennai. |

## Areas of Research

- Isolation and characterization of bioactive compounds and to study their pharmacological applications.
- To study the anti-diabetic and anti-cancer efficacy of small molecules.

## Research Supervision / Guidance

| Program of Study | | Completed | Ongoing |
|---|---|---|---|
| Research | Ph. D., | 2 | 1 |
| Project | M.Phil. | 1 | - |
| | PG | 11 | - |
| | UG | 8 | |

## Funded Research Projects

| S. No | Agency | Period | | Project Title | Amount (Lac) |
|---|---|---|---|---|---|
| | | From | To | | |
| 1. | UGC, New Delhi. | July 2011 | Dec. 2014 | "Studies on attenuating …….. sensitized rats" | 14.7 |
| 2. | RUSA-2.0, MHRD, New Delhi. | April 2021 | Aug. 2024 | "Studies on the extraction …… seeds" | 12.36 |
| 3. | CMRG, Government of Tamil Nadu, Chennai | Dec. 2024 | Dec. 2027 | "Extraction, purification …….. *Syzygium cumini*" | 32.7 |

## Publications: 23

| International | | National | | Others |
|---|---|---|---|---|
| Journals | Conferences | Journals | Conferences | Books / Chapters / Monographs / Manuals |
| 11 | 1 | 6 | 1 | 4 |

| | | | |
|---|---|---|---|
| **h-index** | : | **7** | **5 Since (2020)** |
| **i10 index** | : | **4** | **2** |
| **Total Citations** | : | **256** | **115** |

## Scientific Publications

1. Jegadeshwari B, Saraswathy SD. Characterization and antioxidant, antidiabetic and immunostimulating efficacy of polysaccharide extract from *Syzygium cumini* (L.) Seeds. *Applied Biological Research*, 2025; 27 (1): 12-25.

2. Prameela A, Thenmozhi K, Saraswathy SD. Ethnobotany, phylogeny, phytochemistry and pharmacological applications of genus *Vincetoxicum* (Apocynaceae). *Discover Plants*, 2024; 1: Article number 32.

3. Sanmuga Priya E, Sivasakthi P, Senthamil Selvan P, Saraswathy SD. *Rosmarinus officinalis* L.: A source of potential antimicrobial agents for combating antimicrobial resistance. *Letters in Applied NanoBioScience*, 2024; 13 (1): 45.

4. Jegadeshwari B, Saraswathy SD. Marine seaweed polysaccharides: An insight into biological activities and biomedical applications. *The Natural Products Journal,* 2024; 14 (9): 10-27.

5. Vanathi G, Saraswathy SD. Computational insights into the interaction of pinostrobin with Bcl-2 family proteins: A molecular docking analysis. *Asian Pacific Journal of Cancer Prevention,* 2024; 25 (2): 507-12.

6. Maneemegalai S, Jasmin Lena P, Uma M, and Saraswathy SD. Evaluation of the effect of pollution on the level of antioxidant enzymes in freshwater fishes. *Journal of Advanced Zoology*, 2023; 44 (2): 225-232.

7. Saraswathy SD, Mirunalini A, Karthikeyan K and Premkumar K. BH3 mimetic peptides: An effective strategy to complement anticancer therapy. *Current Protein & Peptide Science,* 2023; 24 (10): 853-864.

8. Jegadeshwari B, Thenmozhi K, Sanmuga Priya E, Saraswathy SD. An overview on the ethnopharmacological, nutritional, and phytochemical perspectives of *Elaeocarpus floribundus* Blume. *Current Pharmacology Reports,* 2023; 9 (5): 377-389.

9. Vigneshwaran S, Maharani K, Sivasakthi P, Senthamil Selvan P, Saraswathy SD, Sanmuga Priya E*.* Bioactive fraction of *Tragia involucrata* Linn leaves attenuates inflammation in Freund's complete adjuvant-induced arthritis in Wistar albino rats via inhibiting NF-κB. *Inflammopharmacolology*, 2023; 31 (2); 967–981.

10. Saraswathy SD, Mershiba S, Sahayamary S. Exploring the antimycotoxigenic potential of *Acalypha indica* and *Bidens pilosa*. A special issue on 2nd International Conference on "Advances in Medical Science and Molecular Biology". *International Journal of Life Science and Pharma Research.* SP-13; 2020; 10: 13-18.

11. Suseela P, Saraswathy SD. Formulation, characterization and pharmacokinetic evaluation of narangenin-loaded gastroretentive mucoadhesive polymeric nanosystem for oral drug delivery. *Journal of Drug Delivery and Therapeutics*, 2015; 5 (2): 107-114.

12. Mershiba SD, Saraswathy SD. Protective effect of chrysin (5,7 - dihydroxyflavone) on hyperglycemia and augmented oxidative stress in streptozotocin-nicotinamide induced experimental rats. *Biomedicine*, 2015; 35 (1): 81-86.

13. Mershiba SD**,** Dassprakash MV**,** Saraswathy SD. Protective effect of naringenin on hepatic and renal dysfunction and oxidative stress in arsenic intoxicated rats. *Molecular Biology Reports,* 2013; 40 (5): 3681–3691.

14. Saraswathy SD, Shyamala Devi CS. Antitubercular drugs induced hepatic oxidative stress and ultrastructural changes in rats. *BMC Infectious Diseases,* 2012; 12 (Suppl 1): 85. (Abstracts from the 1st International Science Symposium on HIV and Infectious Diseases - Poster presentation).

15. Saraswathy SD, Gurumurthy P, Devarajan A, Jagannath K, Shyamala Devi CS. Effect of Liv.100 on antioxidant status in patients administered with different anti-TB drug regimens**.** *Biomedicine*, 2001; 21 (2&3): 56-64.

16. Saraswathy SD, Shyamala Devi CS. Modulating effect of Liv.100 an ayurvedic formulation on antituberculosis drug-induced alterations in rat liver microsomes. *Phytotherapy Research*, 2001; 15 (6): 501-505.

17. Saraswathy SD, Shyamala Devi CS. Effect of Liv.100, an ayurvedic formulation on the erythrocyte antioxidant status in antitubercular drug-induced liver injury in rats. *Biomedical Research*, 2000; 21 (4): 185-190.

18. Saraswathy SD, Shyamala Devi CS. Hepatoprotective effect of Liv.100, a polyherbal formulation, on mitochondrial enzymes in anti-tubercular drug-induced liver damage in rats. *Journal of Clinical Biochemistry and Nutrition*, 1999; 26 (1): 27-34.

19. Saraswathy SD, Prema Gurumurthy, Shyamala Devi CS. Effect of Liv.100 against antitubercular drugs (Isoniazid, Rifampicin and Pyrazinamide induced hepatotoxicity in rats. *Indian Journal of Pharmacology*, 1998; 30 (4): 233-38.

## Authored Book Chapters

1. Jegadeshwari B, Saraswathy SD. (April 2024). The role of IL-9 and Th9 cells in cancer immunity. Lowell T. Duncan (Ed) In: *Advances in Health and disease*. Vol. 79, pp. 97-131. Nova Science Publishers, Inc. NY, USA. ISBN: 979-8-89113-492-8.

2. Aarthi T, Jegadeshwari B, Saraswathy SD, Sivasakthi P, Sentamil Selvan P and Sanmuga Priya E. (December 2023). The role of interleukin-17 (IL-17) – A critical mediator of inflammatory arthritis. Lowell T. Duncan (Ed) In: *Advances in Health and disease*. Vol. 78, pp.105-136. Nova Science Publishers, Inc. NY, USA. ISBN: 979-8-89113-382-2.

3. Saraswathy SD. (2018) Flavonoids are multitargeted hepatoprotective agents: Insight into the mechanism of action in hepatocellular carcinoma. Pandima Devi K (Ed) In: *Recent Advances in the Molecular Mechanism of Flavonoids*. pp. 342-358. Studium Press (India) Pvt. Ltd. ISBN-13: 978-9385046216.

4. Suseela P, Saraswathy SD. (June 2014) Enhanced oral bioavailability of naringenin polymeric nanoparticles: Formulation, characterization and *in vivo* studies. Latha S, Selvamani P. Subramanian N (Eds) In: *Nanobio Pharmaceutical Technology - Applications and Perspectives*. pp. 237-244. Elsevier India Pvt. Ltd. ISBN: 978-935-107-293-5.

## Distinctive Achievements / Awards

1. Received 3rd Prize in Poster presentation (December 2021), International online conference on "Holistic Approach to Immunity to Microbial Diseases and their Treatment" organized by Mahathma Gandhi University, Kottayam, Kerala.
2. Received Visiting Fellowship from Indian National Sciences Academy (INSA), New Delhi during May 2012.
3. Received Senior Research Fellowship (SRF) from Council of Scientific and Industrial Research (CSIR), New Delhi, April 2000.
4. Received Junior Research Fellowship (TN-JRF) from Govt. of Tamil Nadu, April 1998.

## Events organized in leading roles

1. One day Seminar entitled "Building Scientific Careers: Entrepreneurship, Resilience and Communication in Biotechnology" on 30th August 2024 jointly with Alumni Association of Biomedical Science at Bharathidasan University, Tiruchirappalli, Tamil Nadu.
2. A Seminar entitled "Current Perspectives on Lifestyle Diseases" on 23rd August 2024 at Bharathidasan University, Tiruchirappalli, Tamil Nadu.
3. A National Webinar titled "Emerging Trends in Health Care" during 13th March 2022 at Bharathidasan University, Tiruchirappalli, Tamil Nadu.
4. One day Workshop on "Techniques in Clinical Hematology and Biochemistry" (TCHB-2018) during 3rd April 2018 at Bharathidasan University, Tiruchirappalli, Tamil Nadu.
5. National Level Seminar on "Recent Advances in Biomedical Research on Infectious and Non-infectious Diseases (RABRINID – 2011)" during 13th & 14th October 2011 at Bharathidasan University, Tiruchirappalli, Tamil Nadu.

## Membership in Professional Bodies

1. Life Member: Indian Association of Biomedical Scientists (IABMS), India.
2. Life Member: The Society of Biological Chemists (SBC), India.
3. Life Member: Society for Biotechnologists (SBT), India.
4. Life Member: National Academy of Biological Sciences (NABS), India.

## Peer Review Activity : 25

## Special Lectures & Invited Talks : 22

## Presentation & Participation in Conference/Seminar/Workshop : 47

## Others

1. Delivered a special talk on National Science Day in Pudhugai FM 91.2 MHz Community radio on 28 February 2024.
2. No. of Ph. D., Thesis evaluated: 3
3. No. of M. Phil., Thesis evaluated: 5