



**Name and Qualification: Ms. Lalitha Vaidyanathan; M.Sc. (PhD)**

**Designation with Address of the Institution:**

**Senior Lecturer**

Department of Biomedical Sciences  
Faculty of Biomedical Sciences and Technology  
Sri Ramachandra Institute of Higher Education and Research(D.U.)  
Porur, Chennai 600116, India

**Education:**

<b>Institution and Location</b>	<b>Degree (UG/PG/ PhD)</b>	<b>Year Conferred</b>	<b>Field of Specialization</b>
Vels College of Arts & Science, Chennai	Bachelor of Science	2005	Microbiology
Prince Shri Venkateshwara Art & Science College, Chennai	Master of Sciences	2007	Biotechnology
Sri Ramachandra Institute of Higher Education & Research	Doctor of Philosophy	Pursuing	Phytomedicine

**Teaching & Research Experience:**

<b>Institute</b>	<b>From</b>	<b>To</b>	<b>Designation</b>
Sri Ramachandra Institute of Higher Education & Research	2009	2012	<b>Tutor</b>
	2012	2015	<b>Lecturer</b>
	2015	Till date	<b>Senior Lecturer</b>

**Research Interests:**

- Phytotherapy research
- Antimicrobial studies

- Burn wound pathogens and the mechanism of action
- Zebrafish Biology
- Drug toxicity testing
- Neuroinflammation studies

### **Research Projects Conducted:**

- Zebrafish Diabetic Model of Wound Inflammation to Identify the Role of Neutrophil Chemotaxis and IL-8 Expression in Accelerated Wound Healing
- Neuroprotective effects of a novel phytocompound in adult Zebrafish Traumatic Brain Injury Model (TBI) – Modulating neuroinflammation and neurotransmitter release

### **Post graduate Project Guidance:**

- Comparison of probiotic efficacy of commercially available drugs against selected gut pathogens

### **Under Graduate Project Guidance:**

#### ***Curricular Projects:***

- A study on anti-obesity effects of *Calocybe indica* in adult Zebrafish model, 2019
- A study on anxiolytic effects of *Calocybe indica* using Zebrafish model, 2019
- Antimicrobial potency of Apple cider Vinegar against *Lactobacillus fermentum*, 2019
- Study of antiobesity effect of *Pinus pinea* on adult Zebrafish obese model, 2020
- Enhancement of growth and bioactivities of probiotic bacterium *Saccharomyces boulardii* as influenced by lactalbumin hydrolysate and soy lecithin supplementation in yeast extract peptone dextrose agar medium, 2020
- Neuroprotective effect of resveratrol on scopolamine-induced Alzheimer's disease in adult Zebrafish (*Danio rerio*) model, 2021
- In-vivo hepatotoxicity assessment of the ayurvedic formulation – dasamoolarishtam using adult Zebrafish (*Danio rerio*) model, 2021
- Antimicrobial activity of selenium *Cassia auriculata* nanoparticle against *Streptococcus pyogenes*

#### ***Summer Fellowship Projects:***

- Chancellor Summer Fellowship project, Ms. Sowmya R, Invitro assay to determine wound healing concentrations of Zaluzeanin D from *Vernonia arborea*, 2012

- Chancellor Summer Fellowship project, Mr. ShyamSundar A.R., Targeting fermentation conditions for the production of *Streptococcus thermophiles* with better functional abilities, 2014
- Chancellor Summer Fellowship project, Ms. ShradhaS. Bharadwaj, Modifying effect of resveratrol on the growth and expression of extracellular tissue degrading enzymes hyaluronidase and protease of *Stenotrophomonas maltophilia* – A burn wound pathogen, 2015
- Chancellor Summer Fellowship project, Ms. Therese Deebiga, Screening and evaluation of antidiabetic potency of a traditional Indian medicinal plant using Zebrafish model, 2018
- Chancellor Summer Fellowship project, Ms. Shreenidhi V.P., A study to establish polymicrobial biofilm matrix with selected wound pathogens, 2019
- Chancellor Summer Fellowship project, Ms. Gayathri Venkatakrishnan, Understanding tissue regeneration profile in adult Zebrafish in response to resveratrol, 2021

#### **Conferences/Workshops/Seminars Organized:**

- HERBESCON-National Conference on Phytochemicals and Biotherapeutics, February 2016
- CME on Recent Trends in Biomedical Sciences, December 2017
- Workshop for School teachers, September 2018
- Seminar on ‘Immunology’, August 2019
- Workshop for School teachers, January 2020

#### **Conference presentations (Oral and Poster):**

##### Poster:

- Probiotics and Prebiotics : Synergistic role as biotherapeutics for cardiovascular diseases, Microciencia, SRM Institute of Science and Technology, December 2012
- Genomic Analyses tool investigative and therapeutic approaches to achieve precision medicine for Acute Lymphoblastic Leukemia, 45<sup>th</sup> Annual Meeting of ISHG, SRIHER, February 2020

##### Oral:

- Antibiosis of *Vernonia arborea* leaf fractions against selected wound pathogens, International Conference on Advances in Medical and Industrial Biotechnology, Sathyabama Institute of Science and Technology, March 2019

- A partially purified bioactive fraction of *Vernonia arborea* Buch.-Ham. Leaves with potency against selected wound pathogens, 4<sup>th</sup> International Conference on Wound Care, Tissue Repair and Regenerative Medicine, March 2021.

**Academic and/or Research awards:**

- Best Paper award for the presentation titled Antibiosis of *Vernonia arborea* leaf fractions against selected wound pathogens, in the International Conference on Advances in Medical and Industrial Biotechnology, Sathyabama Institute of Science and Technology, March 2019

**Publications (Journals):**

- Umamaheshwari, **Lalitha**, In vitro effect of various growth hormones in *Capsicum annum* L. on the callus induction and production of capsaicin, Journal of Plant Sciences, 2007 (google scholar)
- **Lalitha Vaidyanathan**, Devi Thanikachalam, Lokeswari T.S., Evaluation of wound healing potency of *Cassia auriculata* flower extracts using chick embryo wound model, International Journal of Pharmaceutical Sciences Review and Research, 2014 (scopus)
- Sowmya Raghupathy, **Lalitha Vaidyanathan**, Lokeswari Sivaswamy, Adult Zebrafish Wound Inflammation to study wound healing potency of *Curcuma longa* extracts, Annual Research and Review in Biology, 2017 (scopus)
- Shyam Sundar, **Lalitha Vaidyanathan**, Enhancement of growth and bioactivities of probiotic bacterium *Streptococcus thermophilus* as influenced by lactalbumin hydrolysate and inulin supplementation in skimmed milk medium, Microbiology Research Journal International, 2017 (scopus)
- **Lalitha Vaidyanathan**, Shradha Bharadwaj, Impaired apoptotic clearance and clonal deletion: Onset or manifestation of systemic lupus erythematosus, Virology and Immunology Journal, 2017 (google scholar)
- Shradha Bharadwaj and **Lalitha Vaidyanathan**, Effects of resveratrol on the growth and enzyme production of *Stenotrophomonas maltophilia*: a burn wound pathogen, Journal of wound care, 2020 (pubmed)

- Therese Deebiga and **Lalitha Vaidyanathan**, Screening and evaluation of antidiabetic potency of *Vernonia arborea* using Zebrafish model, International Journal of Pharmaceutical Sciences and Research, 2021 (web of science)
- Anushree Nagaraj, Sarah Andrea Wilson and **Lalitha Vaidyanathan**, Anti-Obesity Properties of *Calocybe Indica* In Zebrafishes with Short-term High-fat Diet Induction, Biomedical & Pharmacology Journal, 2021 (scopus)
- **Lalitha Vaidyanathan** and T. Sivaswamy Lokeswari, Compounds from *Vernonia arborea* Buch.-Ham. Inhibit Microbes that Impair Wound Healing, Journal of Pharmaceutical Research International, 2021 (web of science)
- Sarah Andrea Wilson, Anushree Nagaraj and **Lalitha Vaidyanathan**, *Calocybe indicia* extract modifies GABA and Serotonin levels to Alleviate anxiety in experimental adult Zebrafish models, Research Journal of Pharmacy and Technology, 2021 (scopus)
- **Lalitha Vaidyanathan**, Growth Factors in Wound Healing – A Review, Biomedical & Pharmacology Journal, 2021 (scopus)

**University Industry Linked Consultancy (UILIC) and Biomedical Sciences In Time Training(BITT)**

S. No.	UILIC/BITT – Title of the research	Affiliation of the student
1.	UILIC Wound healing activity of <i>Cassia auricula</i> using chick embryo as an in-vitro model	Ms. Devi Thanikachalam, M. Tech Biotechnology, Anna University
2.	BITT Microbiology	Ms. Preethi Ravichandran Anna University
3.	BITT Microbiology	Ms. Mounica Devi B.Sc. Microbiology Sri Krishna Arts and Science College, Coimbatore
4.	BITT Zebrafish Biology	Ms. Jayashree M.G. B.Sc. (Hons) Biomedical Science SRIHER
5.	BITT Zebrafish Biology	Ms. Alifa Sultana B.Sc. (Hons) Biomedical Science SRIHER

**Membership in University Committees:**

- Member in the Prof. SPT Endowment Oration Committee of the Faculty of Biomedical Sciences and Technology
- Member in the Faculty Quality Cell (FQC) of the Faculty of Biomedical Sciences and Technology

**Any other relevant Content:**

Roles in the Department

- Coordinator of the BMS Alumni Chapter
- Coordinator of Department Placements