Dr C.VINODHINI, M.Pharm.,Ph.D.
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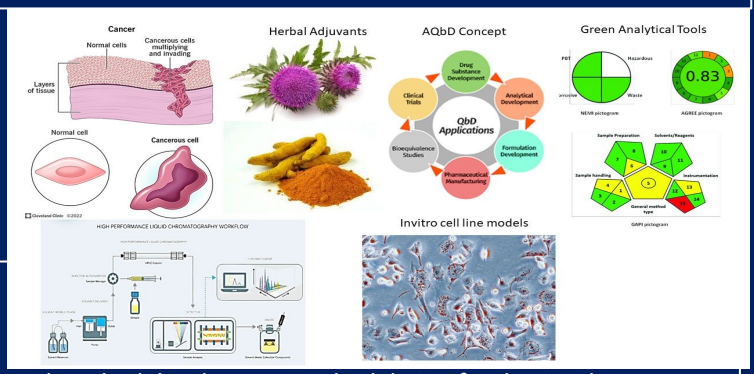
PhD supervision slots available: 3

Personal Profile :

An accomplished academician and researcher with a B.Pharmacy from Adhi Parasakthi College of Pharmacy, Melmaruvathur, and an M.Pharmacy (Pharmaceutical Chemistry) from the College of Pharmacy, Madras Medical College, Chennai, where I graduated with First Class & Distinction. I earned my Doctorate in Pharmacy from Sri Ramachandra University in collaboration with the Central Leather Research Institute, Adyar, Chennai.With 20 years of experience in teaching and research, and 2 years in the industry, my career has been marked by a deep passion for analytical research. I am proficient in method development, validation, stability studies of APIs, drug products, herbal adjuncts, and biological samples. My expertise includes handling analytical instruments such as HPLC, FTIR, UV-VIS spectrophotometer, and using chromatography data collection software. I am also experienced in QbD and green analytical approaches. I have served as Principal Investigator and Co-PI for several funded projects, including 6 intramural GATE fundings and 5 summer research projects. My research work has resulted in 36 publications and one patent since 2004 at SRIHER. Notably, as Co-PI, I successfully secured funding from DST-FIST Level 0, of Rs.53 lakhs (50:50) for the period 2021-2026.and have received six Best Research Paper Awards for my contributions to the field. I am currently supervising three PhD scholars, guiding their research and development in the field.

Research Focus

- Bioanalytical research
- Green Analysis
- Cellular Extraction and estimation
- Validation as per regulatory guidelines.
- Impurity profiling and analytical finger printing.



Team:

Current members

Scholar team:

1.Mrs. J.Ramya, Research Scholar- Green Bioanalytical method development and validation for the simultaneous estimation of glutathione and Antioxidant supplements using quality by design approach in Head and neck squamous cell carcinoma (HNSCC) cell lines.

2.Mr R Prakash, Part time candidate – Scitus Pharmaceuticals - Evaluation and prediction of bioavailability and bioequivalence of Terazosin hydrochloride oral solution with fed and fasted food-drug interactions in healthy human subjects.

3.Mrs Jasmin Sajini R Part time Ph.D scholar **–** "Development of Phytosome Loaded Topical Gel using selected *Ixora* Species and In vitro evaluation in melanoma cell line.

Faculty team:

1.Dr. K. Satish Srinivas MDRT, Professor & HOD & Senior Consultant, Dept. of Radiation Oncology, Sri Ramachandra Medical College and Research Institute, SRIHER.

2.Dr. Anupma Jyoti Kindo, Professor, Department of Microbiology, SRIHER.

3.Dr. S.D. Rajendran, M. Pharm Ph.D.Director &Head- Operations, Scitus Pharma Service Pvt Ltd.Kattupakkam, Chennai-600056.

4.Dr.G. Sowmya, MD. Professor & Senior Consultant Department of General Medicine, SRIHER.

5.Dr A Jerad Suresh, Principal, Sri Ramachandra Faculty of Pharmacy, SRIHER.

6.Dr Saba Maanvizhi, Professor, Sri Ramachandra Faculty of Pharmacy, SRIHER.

7.Dr R Lakshmi Sundaram, Assistant Professor (Research), Sri Ramachandra Faculty of Pharmacy, SRIHER.

8.Dr V Sowmya Lakshmi, Assistant Professor, Sri Ramachandra Faculty of Pharmacy, SRIHER.

Projects:

Current

Extramural grant: DST –FIST R&D Infrastructure PG College Level 0, TPN/51440 2021-2026.-Rs 53 Lakhs (50:50), Department of Science & Technology, Govt of India.

Intramural grant:

GATE young faculty research grant

Current:

1. Co-Investigator – Rs.99,246/ (2021-22), "Antioxidant Supplements and Glutathione: Evaluation by In vitro HPLC Assay in Head and Neck Squamous Carcinoma (HNSCC) Cell Lines. (ongoing).

2) Co-Investigator – Rs.98,000/ (2023-24),"Exploring Cucurbitaceous vegetables as 'green' redox agents" (In progress).

Past

1)Principal Investigator - Rs. 80,000/-(2012-13) "*Synthesis, in-silico and in-vitro analysis of novel spiroxindole , pyrazole analogues against thymidylate synthase : a promising anti-cancer target."(completed).*

2) Co-Investigator – Rs.92,000/- (2015-16) "*HER2 – positive targeted in silico screening and anti- cancer assessment of a marine ecowaste - An isolated bioactive lipid Sphingosine* from *Spirastella pachyspira*". *(completed).*

3) Principal Investigator - Rs. 90,000/- (2016 – 2017), "Method development and validation of bioanalytical quantification of Taxanes following herbal adjuant administration in human plasma using reverse phase HPLC".*(completed).*

B. Summer research fellowship as Supervisor - Rs.10,000/-

Past

i) *"A novel RP-HPLC and HPTLC finger printing of Phlebotropic bioflavanoid Diosmine in Pharmaceutical formulations"* by **Mr.Aditya Balaji** – B.Pharmacy – VI semester student- 2015. *(completed).*

ii)*"Development of cost effective analytical techniques for the estimation of Lorcaserin – An FDA approved ANDA Marketed Anti obesity drug"* by **Mr. G. Karthikeyan** – B.Pharmacy –II semester student- 2017. *(completed.)*

iii) "HPTLC Finger Printing and Pesticidal analysis of a siddha source herb *Acalypha indica* (Linn) aerial - An insight to develop monograph" by **Ms.S.Teshini** – B.Pharmacy –V semester student- 2019. *(completed).*

iv) "Green analytical chemistry (GAC) for development of stability indicating HPLC method for Curcumin estimation in herbal formulation" **Ms.R Haritha** – B.Pharmacy –VI semester student- June 2021. *(completed).*

v) "QbD approach for the quantification of Silymarin supplement - A Glutathione booster in Oral cancer therapy" **Ms J Preethi** – B.Pharmacy –VI semester student - June 2021. *(completed).*

Key Publications:

1.Hindu Kalluru, Surulivel Rajan Mallayasamy, Satish Srinivas Kondaveeti, Vinodhini Chandrasekhar, Mangathayaru Kalachaveedu, et al. Effect of turmeric supplementation on the pharmacokinetics of paclitaxel in breast cancer patients: A study with population pharmacokinetics approach. Phytotherapy Research. 2022;1–9.https://pubmed.ncbi.nlm.nih.gov/35181963/

2. C.Vinodhini, Selvarangam E. Kiruthika, Paramasivan Thirumalai Perumal,K. Chitra, et al. Neat Multicomponent Assembly of Highly Functionalized Acenaphtho[1,2-b]pyrroles In Vitro Evaluation for Antioxidant and Cytotoxic Activities. Journal of heterocyclic chemistry. 2022;59(11):1996-2005. https://doi.org/10.1002/jhet.4536

3. Ramya Jonnalagadda, Seetharaman Rathinam and Vinodhini Chandrasekar, et al. Development and Greenness Assessment of Analytical Quality by Design Optimised Eco-friendly UV Spectrophotometric Methods for Analysis of Two Natural Antioxidants in Pure and Formulation. Journal of Natural Remedies. 2023;23(4):1475-90. https://doi.org/10.18311/jnr/2023/33662

4. Ramya. J, Seetharaman.B, N.Krishnaveni, C.Vinodhini, et al. Green HPLC method for simultaneous analysis of three natural antioxidants by Analytical Quality by Design.J AOAC Int. 2024;107(1):14-21. https://pubmed.ncbi.nlm.nih.gov/37701979/

5. Jasmin Sajini R , Vinodhini Chandrasekar , Chamundeeswari D , Karthik Rajendran, Anupma Jyoti Kindo , Jayakumari Swaminathan, et al. In Vitro Wound Healing and Anticancer Effects of Ixora coccinea in Malignant Melanoma Cell Lines. The Cureus journal of Medical Science. 2024;16(4):1-14.https://www.ncbi.nlm.nih.gov/pmc/articles/PMC11127706/