Dr. C. Sowmya, M. Pharm., PhD.
Assistant Professor, Department of Pharmaceutics, Faculty of Pharmacy,
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PhD supervision slots available: 01

Personal Profile:

Pharmaceutical R & D scientist with 18 years of academic and research experience, actively engaging in teaching at both undergraduate and postgraduate levels. My primary research interest lies in the design and development of innovative plant-based drug delivery systems utilizing advanced statistical optimization techniques, resulting in high impact international peer reviewed research publications. With a notable track record, I have authored 60 publications in various national and international journals and contributed to DST and AICTE projects. I have supervised 30 M. Pharm projects, guided one doctoral dissertation, and currently mentors three doctoral candidates. My research expertise lies in the formulation and evaluation of advanced nano systems, including solid lipid nanoparticles, phytosomal complexes, niosomes, and nanofiber films. Currently Assistant Professor in the department of Pharmaceutics, Faculty of Pharmacy and also innovation ambassador at SRIHER. Teaching records include theory and laboratory exercises in Pharmaceutics.

Research Interests :

- **Design, development and optimization of novel drug delivery systems like extended-release tablets, nano phytosomes, self-micro emulsifying drug delivery systems, niosomes, insitu gels, bi-layer tablets etc.**
- **Development and evaluation of novel plant-based drug delivery systems for transdermal administration in breast and skin cancers and psoriasis.**
- **Developing combination synthetic- herbal drug loaded nanofiber films for augmented wound healing efficacy.**

Projects ongoing:

Intra mural GATE: Young Faculty Research Grant (2022) Rs. 1.0 Lakh

"Calendula Reinforced Naproxen Emulgels to Abate Inflammation and Therapeutic Facilitation: Formulation optimization, *in vitro* and *ex vivo* investigations".

Lab members:

Mrs. N. Bharathi Sai Thilagum- (PhD Research Scholar) (Orchid ID: 0009-0003-2398-0187)	**Novel Topical Niosome Formulation Containing a Synergistic Blend of Phytocompounds for the Treatment of Breast Cancer: Formulation, Characterization and Pre-clinical Efficacy Testing**
Mrs. Pednekar Arti Shashikanth (PhD Research Scholar)	**Fabrication and Characterization of in-situ Topical Film Forming Solution of Andrographolide for Skin Carcinoma**
Mr. Sundaramoorthy K (PhD Research Scholar) (Orchid ID: 0009-0006-7707-5803)	**Formulation and Evaluation of Dual release drug delivery system of Lurasidone and Valproate for the treatment of psychotic disorders**

Core publications:

1. **Sharan Babu RS, Sowmya C*, Rohith S, Mahalakshmi K, Monisha K, "Calendula Oil Associated Dexibuprofen Nanoformulation Transdermal Patches: Formulation and Characterization", International Journal of Drug Delivery Technology (2024); Published online 25th June 2024, DOI: 10.25258/ijddt.14.2.13**

2. **Sowmya Cherukuri, Anitha Paramanayagam*, Prabakaran R, Mayakannan M, Lavakumar Vuppalapati, "Evaluation of Cutaneous Wound Healing Activity of Citrus aurantium Fruit Peel Extract-based Ointment in Albino Rats" Research Journal of Pharmacy and Technology 2023, 16(1):250-254 DOI: 10.52711/0974-360X.2023.00046**

3. **E. Bhargav, K.B. Koteshwara Y. Padmanabha Reddy, C. Sowmya , P. Ramalingam "Development of Curcumin nanophytosomes surface functionalized with Chondroitin sulfate-A for treating k1 *Plasmodium falciparum* drug-resistant malaria" Journal of drug Delivery and science and Technology, Volume 87, September 2023, 104788, doi.org/10.1016/j.jddst.2023.104788**

4. **Sowmya Cherukuri*, Thiruppathi M, Lavakumar Vuppalapati, Formulation and optimization of novel dexibuprofen- Aloe vera deformable emulgels for enhanced anti- inflammatory activity, Journal of drug Delivery and science and Technology, Volume 69, March 2022,103171,doi.org/10.1016/j.jddst.2022.103171**

5. **Chandramohan S, Naveenkumar S, Kaviyarasu K, Lavakumar V, Cherukuri Sowmya Santhanakumar M, Muthukumaran A. "Bio-distribution of selenium nanoparticles (SeNPs) to the Wistar rats and its breastfed offspring." Journal of Drug Delivery Science and Technology, Volume 61, February 2021, 102299 doi.org/10.1016/j.jddst.2020.102299**