

Faculty CV

Name

Dr. M. Shyam Lal

Designation

Associate Professor

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Profile photo (1 photo upto 10 MB)



Links of Personal webpage/Google scholar/LinkedIn etc.

<https://scholar.google.com/citations?user=vrbQ1T8AAAAJ&hl=en&authuser=1>

Broad areas of research (only keywords)

Infectious Disease Biology, Nanobiotechnology and Parasitology

Professional Experience

- Associate Professor: University of Hyderabad (Oct 2023 - Till date)
- Scientist D: Institute of Nano Science and Technology (Jan 2023 Oct 2023)
- Scientist C: Institute of Nano Science and Technology (Jan 2019 Dec 2022)
- Scientist B: Institute of Nano Science and Technology (Feb 2015 Dec 2018)

Education/Training

- Ph.D. (Biochemistry), Banaras Hindu University, 2015.
- M.Sc. (Biochemistry), University of Hyderabad, 2009.
- B. Sc. (Biotechnology), Osmania University, 2007.

Detailed research interests (Upto 2 paragraphs or 10 bullet points)

The primary focus of our lab is to engineer delivery systems for various biomedical application. We focus on the development of nanomedicines based on biological nanomaterials with considerable priority on interface between in vitro and in vivo studies and how logically designed and engineered drug delivery systems can be translated into clinically effective therapeutics. Currently, we are engaged in resolving obstacles in predominant therapeutics of varicose veins, degrees of wound healing and antibiotic resistance.

Selected publications (upto 5)

1. Overcoming drug delivery challenges with lipid-based nanofibers for enhanced wound repair. Javaid A, Sharma KK, Varshney P, Verma A, Mudavath SL*. Biomater Sci. 2024 Dec 19.
2. Dual Drug Delivery for Augmenting Bacterial Wound Complications via Tailored Ultradeformable Carriers. Arora K, Dhruw B, Pm S, Madhukar P, Sundar S, Mudavath SL*. Bioconjug Chem. 2024 Jun 19;35(6):766-779.
3. Self-assembled nanomicelles for oral delivery of luteolin utilizing the intestinal lymphatic pathway to target pancreatic cancer. Karole A, Dinakar YH, Sagar P, Mudavath SL*. Nanoscale. 2024 Apr 18;16(15):7453-7466.
4. Hijacking the intrinsic vitamin B12 pathway for the oral delivery of nanoparticles, resulting in enhanced in vivo anti-leishmanial activity. Singh A, Yadagiri G, Javaid A, Sharma KK, Verma A, Singh OP, Sundar S, Mudavath SL*. Biomater Sci. 2022 Sep 27;10(19):5669-5688.
5. Carboxymethyl chitosan modified lipid nanoformulations as a highly efficacious and biocompatible oral anti-leishmanial drug carrier system. Singh A, Yadagiri G, Negi M, Kushwaha AK, Singh OP, Sundar S, Mudavath SL*. Int J Biol Macromol. 2022 Apr 15;204: 373-385.
6. Modified solid lipid nanoparticles encapsulated with Amphotericin B and Paromomycin: an effective oral combination against experimental murine visceral leishmaniasis. Parvez S, Yadagiri G, Gedda MR, Singh A, Singh OP, Verma A, Sundar S, Mudavath SL*. Sci Rep. 2020 Jul 22;10(1):12243.

Selected projects (upto 5)

1. ICMR (2024-2027): Dual action antibiotics in mesoporous silica coated upconversion mediated photodynamic therapy against Methicillin-resistant Staphylococcus aureus, Role: PI

Selected patents (a paragraph or upto 5 bullet points)

Current PhD scholars and broad research topics

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