

## PROFILE



**Name :** Dr. Raju Shankarayan

**Name of the Department:** Department of Biotechnology

**Date of Joining at SMVDU :** 11.10.2012

**Current Designation:** Assistant Professor

**Qualification:** B.Pharm., M.Tech., Ph.D.(IIT Delhi, Biochemical Engg. & Biotechnology), GATE, UGC-NET, CSIR-JRF, IITD-SRF.

**Area of Specialization:** Sustained drug delivery, Nanoparticulate drug delivery, Drug transport through mucosa

**Research Interest:** Polymeric biomaterials based drug delivery, Pharmacokinetics, New drug discovery from Natural Products, Homeo and Naturo-therapy for incurable diseases, Metaphysics and Transcendental energy, Occult Sciences and the energy involved.

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**Paper Presentations in Workshops/Seminars/Conferences conducted or recognized by Professional agencies:**

- National Symposium on “Recent Trends in Biotechnology and Drug Discovery” organized by Department of Biotechnology at SMVDU, Kakryal, J&K; 30-31 March 2017. Title: “Preparation and Optimization of Streptomycin loaded Chitosan Nanoparticles”
- National Symposium on “Recent Trends in Biotechnology and Drug Discovery” organized by Department of Biotechnology at SMVDU, Kakryal, J&K; 30-31 March 2017. Title: “Synthesis of sustained release nanoformulation of Bacitracin using Chitosan as a polymer”
- International Conference on Renewable Energy for Sustainable Environment: Challenges and Remedies (ICRESE- 2017) organized by School of Energy Management, at SMVDU, Kakryal, J&K; 20-21 March 2017. Title: Nanotechnology: a boon for solving world energy

problem.

- National Conference on recent advances in Materials Science and spectroscopy (NCRAMSS-2017) organized by Dept. of Physics, SMVDU in collaboration with Laser and Spectroscopy society of India from 15<sup>th</sup> to 17<sup>th</sup> February 2017. Title: “Characterization and antimicrobial activity analysis of silver nanoparticles synthesized from field grown and in vitro regenerated shoots of *Kickxia Ramosissima*“.
- National conference on “Emerging Trends in Biotechnology for Agriculture, Medicine and Environment” at Mahila P.G. Mahavidyalaya, Jodhpur from 18-19 November 2016. Title: High frequency in-vitro regeneration system for conservation of *Kickxia Ramosissima* (Wall) Janch: a medicinally important herb.
- J&K women Science congress at Govt. college for Women, Gandhi Nagar, Jammu from 1<sup>st</sup> to 3<sup>rd</sup> September 2016. Title: Effect of Nutrients supplements on In-vitro regeneration in *Kickxia Ramosissima*.
- National conference on advances in Agricultural sciences and Biotechnology at DAV Jalandhar on 28 Feb 2015. Paper Title: In vitro flowering and plantlet regeneration in *Kickxia Ramosissima*-A medicinally important plant.

### **Papers (International Journals)**

1. R. Shankarayan, S. Kumar and P. Mishra, Differential permeation of piroxicam-loaded PLGA micro/nanoparticles and their in vitro enhancement. *Journal of Nanoparticle Research*, 15(3), 1-13 (2013).
2. R. Shankarayan and P. Mishra, Permeation Behaviour of Lysozyme-Loaded Poly(Lactic-co-Glycolic Acid) Nanoparticles Through Porcine Oesophageal Mucosa and Its Microscopic Study, *Journal of Nanopharmaceutics and Drug Delivery*, 3(1), 85-96 (2016).

### **Ph.D. Students (Pursuing):**

Ms. Jyotsana Sharma (13PHDSBT05), Title: STUDIES ON REGENERATION, BIOCHEMICAL PROFILING AND BIOACTIVITY ANALYSIS IN SELECTED MEDICINAL PLANT SPECIES, (Co-supervisor- Dr. Sharda M. Potukuchi, Associate Professor, DoBT, SMVDU Katra).

### **M.Sc./B.Tech dissertations conducted:**

- Synthesis of sustained release nanoformulation of Bacitracin using Chitosan as a polymer, Priya Kaw and Anamika Khajuria, May, 2017.

- Preparation and Optimization of Streptomycin loaded Chitosan Nanoparticles, Kirti Sharma, May, 2017.
- Preparation of Bacitracin-loaded Chitosan nanoparticles, characterization and in-vitro release of the drug, Pallavi Ranjan (2012EBT06), Mehak Sharma (2014SMB18), May, 2016.
- Preparation and characterization of Rifampicin-loaded chitosan nanoparticles and determination of in vitro release profile of drug, Poonam Chaudhary (2011EBT13), Divya Ajrawat (2013SMB08), May, 2015.
- Preparation of amoxicillin-loaded gelatin nanoparticles, characterization and in vitro release study of the drug, Bhanu Sharma (2012SMB04), May, 2014.
- Study of various processes used in the manufacturing of beverages including water treatment and quality assurance and control, Sahil Kumar (Performed at Hindustan Coca-Cola beverages Pvt. Ltd., Jammu), May, 2014.
- Preparation, Characterization, in-vitro release and antimicrobial activity study of Bacitracin-loaded Calcium Alginate beads, Vishakha (2009EBT09), Ruchika (2011SMB05), Priyanka kohli (2011SMB24), May, 2013.