

Curriculum Vitae

POOJA RANI

PhD Research Scholar

Department of Pharmaceutical Sciences

Lovely Professional University, Punjab, India

Contact: +919682656304

E-mail: poojarani9628@gmail.com

Research Interest

- Design and synthesis of novel therapeutically active compounds
- Fabrication of novel drug delivery systems
- Medicinal chemistry/Natural products/Peptide chemistry

Academic Qualifications

- Ph.D. Pharmaceutical Chemistry (2021-Present) from Lovely Professional University, Punjab, India
Thesis title: *"Preparation of sulfapyridine prodrugs and their nanoscale self-assemblies for the management of rheumatoid arthritis"*
- M. Pharm in Pharmaceutical Chemistry (2019-2020) with 71.25% from B.N. University, Udaipur, Rajasthan, India
- B. Pharm. in Pharmaceutical Science (2014-2018) with 80% from Pacific Academy of Higher Education and Research University, Udaipur, Rajasthan, India

Awards/Honors

- Received BHAMASHAH AWARD from Maharana Mewar Foundation (Udaipur, Rajasthan) in 2019 for Academic excellence in Graduation.
- Consistently secured 1st rank in all terms in Graduation (B. Pharmacy, Year 2014-2018)
- Qualified the University-level PhD entrance exam with a 90% scholarship

Publications: Citations: 72; h-index: 5

- Rani P, Rahim, J, U, Patra, S, Gupta, R, Gulati M, Kapoor B. Tumor microenvironment-responsive self-assembling polymeric prodrug-based nanomaterials for cancer therapy. *Journal of Drug Delivery Science and Technology* 2024; 96:105715. Doi: 10.1016/j.jddst.2024.105715
- Rani P, Kapoor B, Gulati M, Gupta R. Nanoscale self-assembling prodrugs of sulfapyridine for treatment of arthritis: Harnessing the dual approach. *Medical Hypotheses* 2022;165:110896. Doi: 10.1016/j.mehy.2022.110896
- Rani P, Kapoor B, Gulati M, Atanasov AG, Alzahrani Q, Gupta R. Antimicrobial peptides: A plausible approach for COVID-19 treatment. *Expert Opinion on Drug Discovery* 2022;17(5):473-87. Doi: 10.1080/17460441.2022.2050693
- Isha, Rani P, Gulati M, Rahim, J. U, Kapoor B. Self-assembled peptide-based nanoforms targeting mitochondria for chemotherapy. *Journal of Drug Delivery Science and Technology* 2024; 99:106006. Doi: 10.1016/j.jddst.2024.106006
- Kaur R, Rani P, Atanasov AG, Alzahrani Q, Gupta R, Kapoor B, Gulati M, Chawla P. Discovery and development of antibacterial agents: Fortuitous and designed. *Mini Reviews in Medicinal Chemistry* 2022;22(7):984-1029. Doi: 10.2174/1570193X19666211221150119
- Kapoor B, Gulati M, Rani P, Gupta R. Psoriasis: Interplay between dysbiosis and host immune system. *Autoimmunity Reviews* 2022 Aug 12:103169. Doi: 10.1016/j.autrev.2022.103169
- Kapoor B, Gulati M, Rani P, Kochhar RS, Atanasov AG, Gupta R, Sharma D, Kapoor D. Lycopene: Sojourn from kitchen to an effective therapy in Alzheimer's disease. *Biofactors* 2023;49(2):208-27. Doi: 10.1002/biof.1910
- Kapoor B, Kochhar RS, Gulati M, Rani P, Gupta R, Singh SK, Machawal L, Thakur A. Triumvirate to treat mucormycosis: Interplay of pH, metal ions and antifungal drugs. *Medical Hypotheses* 2022;159:110748. Doi: 10.1016/j.mehy.2021.110748

- Kapoor B, Singh A, Gulati M, Singh SK, Rani P, Alzahrani Q, Dua K, Dureja H, Corrie L. Orchestration of obesolytic activity of microbiome: metabiotics at centre stage. *Current Drug Metabolism* 2022;23(2):90-8. Doi: 10.2174/1389200223666220211095024
- Sharma, P, Kapoor B, Hussain, M. S, Singh, G, Rani, P, Saini, B, Wadhwa, P, Kumar, R. Development and Validation of Reverse-Phase High-Performance Liquid Chromatography Method for Simultaneous Estimation of Doxorubicin and Clotrimazole. *ASSAY and Drug Development Technologies* 2023; 22:86-96. Doi: 10.1089/adt.2023.057.
- Parveen, S.R, Wadhwa, S, Singh, S.K, Kapoor, B, Rani, P, Vishwas, S. Validated RP-HPLC method for estimation of Chrysin in bulk form and nanostructured lipid carriers for topical application. *Nanoscience and Nanotechnology Asia* 2023;13:41-48. Doi: 10.2174/2210681213666230227150930.
- Gupta R, Kapoor B, Bandopadhyay, R, Gulati M, Rani P, Kochhar, R.S. Allicin and Probiotics: Double-edged sword for the management of *Striae distensae*. *Medicine in Microecology* 2024, 21:100109. Doi: 10.1016/j.medmic.2024.100109.
- Alzahrani QE, Gillis R, Harding SE, Pinto LH, Gulati M, Kapoor B, Rani P, Singh SK, Adams GG. Potential of the triad of fatty acids, polyphenols, and prebiotics from *Cucurbita* against COVID-19 in diabetic patients: A review. *Journal of Reports in Pharmaceutical Sciences* 2022;11(1):28-40. Doi: 10.4103/jrptps.JRPTPS_144_21

Technical Expertise

- Prodrug synthesis and development of novel drug delivery systems
- Solid and Solution phase synthesis and biological activities of peptides
- Knack in executing multi-step synthesis
- Expertise in purification of organic and natural products by using chromatography techniques
- Structure elucidation of organic compounds using various analytical techniques such as NMR, HR-MS, FT-IR, UV-Visible spectroscopy, Optical rotation
- Command over ChemBioDraw, Mestrenova, BioRender and other softwares such as Microsoft Office including Word, Excel, PowerPoint, Publisher
- Expertise in animal handling

Conferences

- Participated in the National Seminar on "Current Perspectives of Analytical Techniques in Pharmaceutical Sciences" (2014)
- Participated in "1st Convention Association Teacher of India Rajasthan State Branch" (2015)
- Participated and presented a poster session on "NANOPARTICLES" in National Conference on "Medicinal Chemistry Perspective Drug Discovery and Therapy" (2015)
- Participated in Entrepreneurship Awareness Program entitled "Entrepreneurship in Pharmacy" Sponsored by the Department of Science & Technology on 3rd-4th March 2017
- Participated in the one-day Symposium on Health Care Sector-Transition, Innovation and Challenges (2016)
- Participated in 5th Indo-West Conference on "Modern Trends in Pharmaceutical Education and Research" (2017)
- Participated in the Symposium on "Reinventing Women Leadership", (2017)
- Participated in App 4th Indo Malaysian Conference on "Future Scenario and Present trends in Drug Design and Pharmacological Aspects", (2019)
- Poster presenter in National Conference-cum-Workshop themed "Post Covid-19 Pandemic Era: Prospective shift towards Clinical and Translational Research", (2022)
- Oral presentation in National Science Day, IDEATHON, (2022)

Research Projects

- “Plants as a Source of Anti-Cancer Agents” as a part of curriculum in B. Pharm 4th year.
- “Synthesis, Characterization & Purification of Non-Proteinogenic Amino Acids and Peptides” as a part of M. Pharm Project at CSIR-IIIM Jammu.

Professional Training and Experience

- Accomplished One Month Industrial Training program in Production, Packaging, Quality control, Quality assurance, at LENUS LIFECARE PVT. LTD., Solan, H.P.
- 4-month Teaching experience as an Assistant Professor in Lovely Professional University, Jalandhar.

Personal Details

Name:	Pooja Rani
Date of Birth:	October 28,1996
Sex:	Female
Father's Name:	Sh. Hari Krishan Sharma
Language Known:	English & Hindi
Strengths:	Scheduled, Self-starter, Confidence, Flexible