



## Faculty: Interdisciplinary Studies

## Department: Professional Studies

**Name of the**

**Supervisor:**

Prof. Dr.S.Sunitha

**Designation:**

Professor

**Department:**

Pharmacy, Pharmaceutics,

**Faculty:**

Pharmacy

**Research Area**

Lipid-based delivery systems, bioavailability and

**Keywords:**

permeability enhancement, Novel drug delivery systems, Novel approaches in nanoparticles, biodegradable nanoparticles, hydrogels, liposomes, topical delivery systems ocular delivery systems, intranasal drug delivery systems, gastro retentive drug delivery systems



**LinkedIn:**

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**Google Scholar**

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

**(URL):**

**Research Summary:**

With over 22 years of experience in Pharmaceutics, I specialize in teaching and research at esteemed institutions such as NIPER-H, affiliated colleges of Osmania University, and JNTU-Hyderabad. My expertise lies in formulation development, particularly in novel drug delivery systems (NDDS) encompassing nanosuspensions, lipid-based systems (micro/nano-emulsions, SLNs, NLCs), polymeric and metal nanoparticles (gold), intranasal and transdermal drug delivery employing Quality by Design QbD principles. I possess extensive experience in scientific writing, evidenced by more than 60 publications in reputable peer-reviewed journals indexed in International, Elsevier, Scopus, WoS, and Sci databases.

Additionally, I excel in formulating diverse dosage forms, including tablets using conventional methods (wet, dry, direct compression), tablet coating, in-situ gel preparation, and complexation with cyclodextrins. My skill set extends to bioanalytical method development using HPLC and conducting preclinical studies in animal models, including biodistribution and bioavailability assessments. Notably, I have developed animal models for osteoporosis and surgical procedures, alongside expertise in brain uptake studies via intranasal drug administration.

**Name of the Faculty:** Dr. Vijay Murlidhar Khedkar

**LinkedIn:** <https://www.linkedin.com/in/vijay-khedkar-a5158316>

**Google Scholar:** <https://scholar.google.com/citations?user=CT7X5I0AAAAJ&hl=en>



**Research Summary:** A highly optimistic and proactive computational medicinal chemist with Ph.D. degree in Pharmaceutical Chemistry (Computational Medicinal Chemistry) and Post-doctoral research experience. Successful track record of executing lead identification and optimization projects by applying molecular modeling techniques.

*Strengths in the field include:*

- Structure-based drug design (SBDD): Virtual Screening, Molecular Docking, Structure-based Pharmacophore modeling, Receptor-dependent QSAR modeling, Molecular Dynamic Simulation, Homology Modeling.
- Ligand Based Drug Design: Descriptor-based mathematical modeling (QSAR/QSPR), Pharmacophore modeling.
- Sound Knowledge of medicinal chemistry principles & application in addressing drug design challenges.
- Synthesis and purifications of small organic molecules.
- Experience of working in close association with synthetic Medicinal/Organic Chemists & biologists to execute lead identification and optimization projects.



**Name of the** Dr. Neeta Rai

**Faculty:**

**Designation:** Assistant Professor

**Research Area** Herbal formulation, Nanotechnology, Novel drug  
**Keywords:** delivery system, Formulation development, cosmetic formulation.

**LinkedIn:** <https://www.linkedin.com/in/dr-neeta-r-95975079/>

**Google Scholar:** [https://scholar.google.com/citations?user=GXh\\_yacAAAAJ&hl=en](https://scholar.google.com/citations?user=GXh_yacAAAAJ&hl=en)

**Research Summary:** Dr. Neeta Rai has expertise in various formulation developments. She is having excellent knowledge and experience in herbal and cosmetic formulations. She has also worked keenly in novel drug delivery systems. She has two Indian patents, two published books, and book chapters along with many international and national publications in reputed journals with good impact factors.



**Name of the** Dr. Sabeena Hussain Syed

**Faculty:**

**Designation:** Assistant Professor

**Research Area** Ethnopharmacology and Natural Products  
**Keywords:**

**LinkedIn:** <https://www.linkedin.com/in/dr-sabeena-hussain-syed-a8ab2963>

**Google Scholar:** <https://scholar.google.com/citations?user=NSEkxjEAAAAJ&hl=en&authuser=1>

**Research Summary:** My research area include Ethnopharmacological studies where scientific validation of traditional herbs in ailment of various diseases through preclinical studies are studied. The research also involves preparation of active extracts through bioguided fractionation and thus isolating potential phytoconstituents through various analytical techniques.



**Name of the Faculty:**

Dr. Swati S Mutha



**LinkedIn:**

<https://www.linkedin.com/in/swati-bora-mutha-7bb79114/>

**Google Scholar:**

<https://scholar.google.com/citations?hl=en&user=G3IL-3MAAAAJ>

**Research Summary:**

Dr. Swati Mutha, Professor of Pharmaceutics at Vishwakarma University has research and teaching experience of total over 16 years. Guide more than 25 M.Pharm students for their research dissertations, her primary areas of research include conventional and novel drug delivery systems, industrial pharmacy, modified release formulations and acceptability study in patients.

Numerous research articles in various national and international reputed journals and publication houses, various oral and poster presentations in national and international conferences helped her build few niche skills in academic and technical research.

Receiving travel, lodging and boarding 100% grant from UCL (London, UK) for research on „Novel drug delivery systems“, PCCA (USA) Best Poster Award in International Conference of EuPFI, 1<sup>st</sup> prize in International Conference by DPU (Pune, India) and Awarded in International conference by Nirma University are her recent achievements in last 5 years. Additionally, she has received grants from SPPU & UGC, for her research work.

She is presently seeking interdisciplinary partnerships for research in areas like Hospital Pharmacy, Pharmacy Informatics, Pharmaceutical Technology, Pharmacy Automation and Industrial Pharmacy.

Her stupendous academic achievements like „Maharashtra State Topper at D. Pharm. level“ and „Institutional Pharmaceutics Topper at M. Pharm. level“sure deserve to be shared herewith.



**Name of the Faculty:** Dr. Yogesh Chandrakant Suryawanshi

**LinkedIn:** <https://www.linkedin.com/in/yogesh173>

**Google Scholar:** <https://scholar.google.com/citations?hl=en&user=dcIPcd8AAAAJ>



**Research Summary:** Completed Ph.D in Botany from Savitribai Phule Pune University in 2019. Publications: published more than 10 research articles in international journals. Area of Interest:

- Plant Biotechnology: Plant tissue culture, Hydroponic techniques, secondary metabolites.
- Botany: Essential Oil and Seed Oil, FAME identifications, FAME and Oil variability. TBO's variability.
- Fermentation Technology: Different types of fermentation for the enhanced production of ethanol.

Naturopathy: Medicinal and Aromatic Plants.

**Name of the Faculty:** Dr. (Prof.) D. S. Bhatkhande

**Designation:** Professor

**Research Area Keywords:** Waste water treatment, environmental engineering, solid waste abatement, recycle, etc.

**Research Summary:** Worked for industrial waste water treatment using photo catalysis/ photochemical reactions for Ph.D. The other projects undertaken were in domestic water treatment, sewage treatment, novel filtration techniques, mathematical modelling of liquid extraction process, e-waste abatement and applications, biogas from food waste, toilets, digital twin etc.



**Name of the Faculty:** Dr. Jupinder Kaur  
**Designation:** Assistant Professor

**Research Area Keywords:** Nano-electronics; Nano-materials; Fullerenes; Sensors; Bio-medical applications; Density Functional theory, Drug delivery applications



**LinkedIn:** <https://www.linkedin.com/in/dr-jupinder-kaur-18392b210/>  
**Google Scholar:** [scholar.google.co.uk/citations?hl=en&authuser=1&user=WU\\_1lfcAAAAJ](https://scholar.google.co.uk/citations?hl=en&authuser=1&user=WU_1lfcAAAAJ)  
**Research Summary:** Area of research involves analysis of charge transport properties of nano-materials like fullerenes, nano-ribbons, molecular junctions etc. using Density functional theory calculations. Further, researching in drug delivery applications of various carbon and boron fullerenes. Actively involved in studying the sensing capabilities of bio-molecules like DNA nucleobases and other boron-based cage like nano-structures. Has worked on dye-sensitized solar cells using SCAPS and Gaussian 09 software packages.

**Name of the Faculty:** Dr. Om Mahadeo Bagade  
**Designation:** Associate Professor  
**Research Area Keywords:** Particle Engineering, Nanoparticulate Drug Delivery System, Novel Drug Delivery System and Solubility Enhancement,



**LinkedIn:** <https://www.linkedin.com/in/dr-om-bagade-615116157>  
**Google Scholar:** <https://scholar.google.com/citations?user=eTQ2z9EAAAAJ&hl=en&authuser=1>  
**Research Summary:** Dr. Om M. Bagade- A dynamic academician, researcher and professional in the field of Pharmacy. He is a University rank holder at UG and PG level. He has also completed Diploma in Intellectual Property Law from Symbiosis International University, Pune. He did his Ph.D from Savitribai Phule Pune University (SPPU), Maharashtra, India. Currently, he is working as Associate Professor in Pharmaceutics Department, Vishwakarma University, Pune, India. He has shortlisted for interview of Drug Inspector post (MPSC). During his cram he has manifold scholarships rewards on his glory like McKinney (Texas), USA, FFE-Philippines, White Gold Moderate award, AICTE (GATE), Sir Ratan Tata, Sir Dorabaji Tata, Mahindra and Mahindra, and Sir Jindal scholarships etc. He has around 15 years of total experience in teaching and guided more than 10 PG students. He has published more than 55 research and review articles in renowned international journals of repute with good impact factors and more than 70 research presentations in various conferences and grabs the best research paper awards in many events. Furthermore, he has published around 06 Books, 10 Patents and 07 Book Chapters in National and International level of standard. Moreover, one of his research project in pharmaceutics has been funded by BCUD, SPPU.



**Name of the Supervisor:** Dr. Nitish Bhatia  
**Designation:** Professor and Head  
**Department:** Pharmacology  
**Faculty:** Pharmacy  
**Research Area Keywords:**

1. Neurodegenerative disorders
2. Stress associated neurodegeneration
3. Natural antioxidants in wound healing
4. Spermicidal activity of novel phytopharmaceuticals
5. Toxicity evaluation of excipients



**LinkedIn:**

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**Google Scholar:**

<https://scholar.google.com/citations?user=P2WMCEMAAAJ&hl=en>

**Research Summary:**

Dr. Nitish Bhatia is a distinguished figure in the realm of Pharmaceutical Sciences, with over 16 years of extensive experience in academia and research showcasing a commitment to excellence and innovation in pharmacological research.

His research expertise spans various facets of pharmaceutical sciences, with a particular emphasis on neuroprotection, stress-associated neurodegeneration, and wound healing.

Additionally, his investigations into the adaptogenic and memory restorative effects of curcumin in stress-induced conditions underscore his innovative approach to addressing complex physiological challenges.

Dr. Bhatia's academic prowess is evident through his prolific publication record, comprising 53 publications encompassing research articles, review articles, abstracts, and books.

His contributions cover a diverse range of topics, from evaluating the wound healing potential of natural extracts to examining protective effects against neurotoxicity induced by various agents.

Dr. Bhatia actively engages in academic activities, participating in conferences, workshops, and seminars globally to disseminate his research findings and interact with the scientific community. His involvement as an editorial board member and reviewer for esteemed journals reflects his stature in the academic realm and his commitment to advancing pharmaceutical sciences. His dedication to teaching and research is further underscored by his administrative responsibilities.

His exemplary contributions have garnered recognition through prestigious awards such as the Prof. M.L Schroff Pharma Recognition Award and the Young Teacher Award.

As Head of the Department of Pharmacology at Vishwakarma University, Pune, he provides invaluable mentorship to aspiring Ph.D. scholars, fostering a nurturing environment conducive to innovative exploration and scholarly excellence.



**Name of the Supervisor:**

Priyanka Nilesh Karpe

**Designation:**

Assistant Professor

**Department:**

Pharmacy

**Faculty:**

Pharmacy



**Research Area Keywords:**

Analytical method development, Method validation, Product Development, Product Characterization, Respiratory dosage forms.

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**Google Scholar (URL):**

[https://scholar.google.com/citations?user=Zp\\_SDYUAAA&hl=en](https://scholar.google.com/citations?user=Zp_SDYUAAA&hl=en)

**Research Summary:**

With over 8 years of comprehensive experience, including 1.5 years in academics and 7.2 years in pharmaceutical R&D analytical departments, I am a highly organized, motivated, and results-oriented professional. My expertise lies in the development of inhalation products such as DPIs, pMDIs, nasal sprays, and nebulizers within a regulated environment adhering to cGMP/GLP/GDP/ALCOA+ standards.

Throughout my career, I have demonstrated exceptional research, analytical, and technical skills. My ability to coordinate and collaborate with cross-functional teams, partners and clients has been pivotal in driving successful outcomes. I have played a key role in preparing and reviewing various analytical documents including COA, MOA, specifications and reports, essential for ANDA filings.

Furthermore, I have spearheaded the qualification protocols (IQ/OQ/PQ) ensuring meticulous execution, evidence collection and deviation documentation. My experience includes reviewing DMFs from a regulatory perspective and collaborating closely with project management teams to meet product development timelines. I take pride in achieving product development milestones by developing precise and robust analytical methods such as Assay, DDU, APSD, DSD, PSD and impurity profiling. Additionally, I have successfully managed multiple inhalation projects, ensuring adherence to ALCOA+ principles and timely delivery to clients.

My contributions extend to initiating and completing in-vitro bioequivalence studies, facilitating ANDA acceptance by Health Canada. I have also effectively transferred analytical methods from various clients, followed ICH stability guidelines and conducted characterization testing to enhance drug delivery.

In compliance with USFDA guidelines, I have conducted in-vitro bioequivalence and Drug-Device Characterization studies for pMDIs and nasal drug products. My dedication to excellence and drive for innovation continue to be instrumental in advancing pharmaceutical research and development.