

## DEPARTMENT OF PHARMACEUTICS

### FORMULATION DEVELOPMENT

The Department of Pharmaceutics is a place where an unwavering commitment to excellence in research, instruction and service is demonstrated through the extraordinary productivity and success of our faculty, staff and students. The department covers 8,000 sq. ft. with 8 research laboratories with sophisticated processing and analytical equipments. This Department has highly experienced and qualified faculty consisting of 3 professors, 1 associate professor and 8 assistant professors. The department lays emphasis on integrated research approach on modern, herbal and phyto formulations.

#### CONSULTANCY SERVICES OFFERED:

1. Preformulation studies
2. Formulation development: Novel Drug Delivery Systems, Phytoformulations, Nanoparticulate drug delivery systems, Quality by Design (QbD) based formulation development.
3. Testing of different formulations
4. PK/PD study
5. Stability studies

#### List of Sophisticated Equipments:

1. **Microfluidizer** for for creation of nanoemulsions, liposomes, cell disruption and more
2. **Horiba Zeta and size analyzer** for particle size and zeta potential analysis.
3. **Planetary Ball mill** for size reduction
4. **Espin Nano** for Nano fiber preparation
5. **Fluid bed dryer/granulator** for granules preparation
6. **Tablet** coating machine
7. **Rheometer** for estimation of flow characteristics of systems
8. **Probe sonicator** for preparation of nanoparticles
9. **Cascade impactor** for measurement of aerosolisation properties
10. **Lyophiliser.**

**Consultancy Service provided by pharmaceuticals department:**

<b>Sr.</b>	<b>Name of Organization</b>	<b>Nature of work</b>
1	Sahyadri hospital, Pune	PK/PD and antimicrobial testing of formulations
2	Romson Medico, Agra	<i>In vitro</i> lung deposition evaluation of Nebulizer by Anderson cascade impactor
3	Sai Life Sciences Ltd, Hinjewadi, Pune	Formulation development
4	TATA Chemicals Ltd, Mumbai	Formulation development and PK/PD study of nutraceuticals
5	Vamsi Labs, Ltd., Chincholi, Solapur	Formulation development and collaborative research
6	Abbott Healthcare, Mumbai	PK/PD study of Arachitol Nano formulation
7	Emcure Pharmaceuticals	Formulation development
8	Zim Laboratories Ltd, Kamleshwar, Nagpur	Formulation development
9	University of Bradford, UK	Development of novel drug delivery
10	Lupin Ltd, Mumbai	Formulation development
11	Indian Immunologicals, Hydrabad	Formulation development
12	CSIR-NCL, Pune	Formulation development
13	Biovet, Bangalore	Formulation development
14	Pioneer Research Centre for Nanogrid Materials, Pusan National University, Busan, S. Korea	Development of nano materials