



Shri Vile Parle Kelavani Mandal's

Dr. Bhanubhen Nanavati College of Pharmacy



Admissions Open 2019

Institute Level

M. Pharm.

Pharmaceutics | Quality assurance | Pharmacology

Highlights of Research at the Institute

Department of Quality Assurance

Department of Pharmaceutics

Department of Pharmacology

Thrust Areas of Research-

- * Chemical synthesis and in-silico drug design
 - ◇ Target-based / Ligand-based / Chemoinformatics-based drug designing
 - ◇ In-silico 'Knock-out' / Mutation studies
 - ◇ Lead optimisation (binding affinity, selectivity, off-target effects, solubility enhancement)
 - ◇ API and API intermediate synthesis
 - ◇ Impurity synthesis (in collaboration with Indian Pharmacopoeia Commission)
- * Solubility enhancement of drugs and phytochemicals
- * Drug interaction studies (preclinical PK/PD studies)
- * Analytical method development and validation studies of synthetic and herbal formulations (single and fixed dose combination products)
- * Standardization of herbal extracts, herbal and nutraceutical products (AYUSH products)
- * Formulation development of Novel Nanotechnology based Herbal and Nutraceutical Products
- * Cell line studies of API, Finished products, Herbal extracts, Phytoconstituent.

Thrust Areas of Research-

- * Formulation development of Novel Nanotechnology based Herbal and Nutraceutical Products
- * Formulation development of targeted delivery systems using nanotechnology for Pulmonary, Colon anticancer, Antiviral, Anti-infective, Wound healing novel formulations, Ocular, Vaginal, and Cosmeceuticals
- * Industry scalable formulations
- * Nutraceuticals
- * Site specific delivery of therapeutic drugs, solid state characterization, QbD in formulation
- * Analytical method development and validation studies of formulated dosage forms.
- * In vitro cell line studies for anticancer activity.
- * Cell line studies of Formulations, Finished products, Herbal extracts, Phytoconstituent.
- * Anticancer bioassays
- * Cytotoxicity assays

Thrust Areas of Research-

- In vitro Pharmacology
 - Mechanism of action studies
 - Functional assays
- Toxicology and safety pharmacology
 - Safety studies as per ICH guidelines
 - Toxicity studies as per OECD guidelines
- In vivo pharmacology
 - Pharmacokinetic studies
 - Pharmacodynamic studies–
 - ◇ Cardiovascular disorders: Hypertension, arrhythmia, myocardial infarction, atherosclerosis, heart failure
 - ◇ Metabolic disorders: Diabetes & its complications, obesity
 - ◇ Cancer: Lung cancer, colon cancer, liver cancer, oral cancer
 - ◇ Neurological disorders: Stroke, Alzheimer, Parkinson's disease.
 - ◇ Psychological disorders: Anxiety, depression, Bipolar disorder
 - ◇ Immunological disorders: Rheumatoid arthritis
 - ◇ Inflammation & pain: Acute & chronic models

Publications in High Impact Factor Journal of International Repute.

Faculty & Students Filing Patents .

Research Grants from Government Funding Agencies & Industry Consultancy of more than Rs. 3.02 Crore. In last 3 years.

Key Research Facilities

State-of-the art Laboratories

Pilot Plant

Cell Culture Lab

CPCSEA Approved Animal House

Some of the Instruments- Spray Dryer, Mini roller compactor, Tablet Compression Machine, High Pressure Homogenizer, Coating Machine, Rapid Mixer Granulator, Fluid Bed Processor, Multi Mill, Ultrasonicator, HPLC, FTIR/ATR spectrophotometer, Electrospin Instrument, UV-Vis Spectrophotometers, High Performance Thin Layer Chromatography, Probe Sonicator, Ultraturax homogeniser, Biochemistry analyser, Rotary evaporator, Photographic microscope, DSC, Malvern Zetasizer, Liquid Chromatography-Mass spectrophotometer, Ultracentrifuge/Cold centrifuge, Deep Freezer (-29 C), Extruder & Spheronizer, Stability Chambers, data acquisition system, plethysmometer, video tracking software, ERBA auto analyser, tissue homogeniser, rodent ventilator, western blotting and gel documentation, electroconvulsimeter, and many more.



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