

Preincubation Unit
Nanotechnology

In-Charge:
Dr. Sajeev Kumar B, Professor

Equipment's available	Experiments conducted
<ol style="list-style-type: none"> 1. Malvern - Master Zetasizer Nano – ZS 90 2. UV-Visible spectrophotometer- 1700 – Shimadzu 3. High speed homogenizer- IKA digital, Ultra Turax, T25 4. Dissolution – USP XXII Electrolab 8DT 5. Bath Sonicator – Ikon India. 6. HPLC, LC-20AT, Shimadzu 7. Stability Chamber – Thermolab, Mumbai. 8. FTIR- Bruker, Tensor 27 	<ol style="list-style-type: none"> 1. Ethosome-Hydrogel hybrid technology (EHT) for topical drug delivery application 2. Extraction, purification characterization of coach roach allergen along with formulations and evaluation of Sublingual immunotherapy dosage form 3. Formulation and evaluation of solid lipid nanoparticles containing chemotherapeutic agents for treatment of breast cancer. 4. Formulation and evaluation of topical nanohydrogel containing combinative drug for arthritis. 5. Essential oil mediated green chemistry of metal nanoparticles and its characterization Synthesis, Development and characterization of Novel HSP90 Nanoparticle Inhibitors 6. Design, synthesis and evaluation of Novel biofunctional Nano carriers for targeted drug delivery system 7. Formulation and evaluation of polyherbal nanotransethosomes for the treatment of alopecia” 8. Formulation development of protein based magnetic nanoparticles for targeting lung carcinoma via nasal route 9. Development of Novel mesoporous silica Trastuzumab-PLGA Nanoparticles with improved kinetics for HER2+ targeting, avoiding metastasis in breast cancer 10. Development of Dacomitinib loaded superparamagnetic nanoparticles as inhalable chemotherapy for lung cancer 11. Crystal engineering of novel antiretroviral nevirapine cocrystal and its investigation of thermoanalytical, spectroscopic properties, mechanistic dissolution analysis, in-silico and in-vitro study. 12. Development of reconstitutable dried nano-liposome of iron-folic acid for prophylaxis and treatment of iron deficiency anemia.

