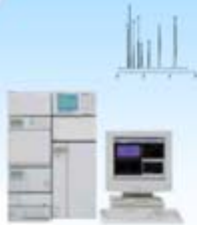


Liquid Chromatography



Shimadzu Class VP and Prominence HPLCs

- Fully automated with autosampler
- Photodiode array and fluorescence detection
- Separate, identify, purify and quantify chemicals in complex mixtures

Mass Spectrometry



API 2000 LC/MS/MS System

- State-of-the-art technology in chemical analysis
- Revolutionary LINAC™ collision cell technology
- Automated method development
- Robust ion sources and proven Curtain Gas™ interface
- Single point control of LC and built-in syringe pump

Thermal Analysis



Perkin Elmer Diamond DSC

- HyperDSC™, the leading fast scan DSC technique
- High calorific accuracy
- Superior signal resolution and sensitivity
- Multiple cooling options for temp -170 °C to 725 °C
- StepScan for Modulated Temperature DSC

Nanoparticle Fabrication



- Microfluidizer 110L
- Silverson SL2T Homogenizer
- Beckman L8M Ultracentrifuge
- Labconco Freezone 2.5 Lyophilizer

- Fabricate, isolate and freeze dry polymer, lipid and biomaterial based nanoparticles
- Entrap, embed or encapsulate choice of materials, including drugs, in nanoparticles

Butler University College of Pharmacy & Health Sciences
Pharmaceutical Sciences Laboratories

Research Infrastructure and Capabilities

Nanotechnology Applications in Drug Delivery, Drug Metabolism and Pharmacokinetics, Polymer and Biomaterial Characterization, Drug-Receptor Binding and Enzymatic Assays

Contact: Dr. Sudip K. Das
317/940-9134, sdas@butler.edu

Liquid Scintillation Counting



Perkin-Elmer Tri-Carb® Liquid Scintillation counter

- Detects small amounts of radiolabeled chemicals
- 80-97% of background radiation removed
- Automatic efficiency control adjusts counting regions for highest accuracy
- Direct DPM measurements eliminate the necessity of quench correction

Mammalian Cell Culture



- Hirayama HiClave HV-85 Autoclave
- SafeArie Vertical Laminar Flow Hood
- Fisher Scientific Floor-Model Incubator
- Thermolyne nitrogen dewar, tabletop centrifuges, ovens, shakers and supporting equipment

Particle Size Characterization



Nicomp 380/ZLS

- Proprietary analysis can split close bimodals
- Zeta potential and sizing
- High sensitivity for measuring dilute dispersions
- Size range (1nm – 5µm)
- Low sample volume (10 µl)

Drug Stability Analysis



VWR Low-Temperature/B.O.D. Incubator Model 2020

- Microprocessor control
- Temp -10 to +45°C (±0.5°C)
- Equipped with chart recorder
- Analysis supported by HPLC, mass spectrometry and thermal analysis