MISSION STATEMENT
The Bioanalytical Core Laboratory is dedicated to the analytical support of collaborative research throughout the university and the external scientific community. The laboratory carries out faculty and graduate student research and offers consultation for faculty and student research projects.

GENERAL DESCRIPTION
The Bioanalytical Core Laboratory Service Center is located within the School of Pharmacy, Department of Pharmaceutics at Virginia Commonwealth University. The service center combines the management skills of an outside independent laboratory with the scientific expertise of an academically-based center. This combination provides a synergistic environment where scientific and management objectives are dealt with in a timely and cost-effective manner.

PERSONNEL
From left back row: J. Randy James, Brian Parris, Dr. Tom Karnes, Matt S. Halquist.
Front Row: Yakun Chen, Poonam Delvadia, Morse Faria

Analytical Capabilities
The Bioanalytical Core Laboratories Service Center offers a complete range of analytical services. We offer highly sensitive analysis of drugs and metabolites in biological fluids, radioactive and stable isotopic drug metabolism studies, tissue residue analysis, in vitro dissolution testing and peptide, protein, lipid and nucleic acid analysis. The following instrumentation is available for sample analysis and has been used in a variety of basic research and clinical studies. Many of these have been in support of NDA and ANDA submissions to the FDA.

- LC with triple quadrupole mass spectrometry detection
- Hybrid triple quadrupole/linear ion trap mass spectrometer
- HPLC with fluorescence, UV, and diode array detectors
- GC with mass selective, nitrogen-phosphorous, electron capture and flame ionization detectors
- Radioimmunoassay
- Nonisotopic Immunoassay-Fluorescence Polarization
- Isotope Analysis - both Gamma and Beta Scintillation Spectroscopy
- Tissue Oxidation
- Molecular Spectroscopy - Absorption, Fluorescence
- Quantitative analysis of large and small molecules
- Stability studies
- Certificate of analysis

Method Development
We specialize in quantitative analysis of large and small molecules. Our HPLC and LC/MS/MS development experience spans the range of available technology. Methods have been developed for drugs and endogenous compounds in biological, environmental, and pharmaceutical sample matrices. Our goal in method development is to establish robust procedures that minimize problems during sample analysis and keep projects on schedule.

Quality Assurance
Our Quality Assurance Provider (QAP) maintains quality through frequent monitoring when needed for cGLP projects. The QAP is independent of the analytical laboratory and reports directly to the Executive Associate Dean of the School of Pharmacy. The QAP ensures that the laboratory conducts analytical projects in strict compliance with appropriate regulatory guidance and SOP’s.

- Checks and balances to ensure proper sample identification throughout the analytical process
- Regulatory submissions to both FDA and EPA successfully completed
- Dimenna and Associates provide quality assurance services, a local firm with more than 25 years of experience conducting and monitoring cGLP studies

Contact Us
Bioanalytical Core Laboratory Service Center
Box 980533
Richmond, VA 23298-0533

Phone: (804) 828-4320, Fax: (804) 828-1273
E-mail: tom.karnes@vcu.edu
http://www.pharmacy.vcu.edu/pharmaceutics/page.aspx?id=130