



University of Georgia Research Core Facilities

research.uga.edu/core-facilities

University of Georgia Research Core Facilities provide state-of-the-art equipment and services to university and industry researchers. Contact facilities for rates and more information.

Bioexpression & Fermentation Facility

The Bioexpression & Fermentation Facility (BFF) maintains an array of equipment to speed the pace of research, development and manufacturing. Areas of expertise include molecular biology, fermentation, protein purification, high-containment cell culture, and monoclonal antibodies.

bff.uga.edu

Bioimaging Research Center

The Bioimaging Research Center (BIRC) is a multi-imaging research suite providing a full range of biological imaging technologies for human, animal, and cellular scientists. Imaging capabilities include all major MRI (structural, fMRI, MRS, MRA, DTI), Magnetoencephalography (MEG), dense-array electroencephalography (256 ch EEG), fluorescence, and small animal DEXA.

birc.uga.edu

Biomedical Microscopy Core

The Biomedical Microscopy Core (BMC) houses state-of-the-art deconvolution, confocal and super resolution microscope systems useful for multiple applications; including live-cell imaging and examination of fixed and immunolabeled cell and tissue samples. The facility provides expertise, training, and assistance to researchers who work on different model organisms.

bmc.uga.edu

Center for Applied Isotope Studies

The Center for Applied Isotope Studies (CAIS) is a multidisciplinary research center with a wide range of expertise to collaborate with industrial and academic partners on research programs and method development applications including: stable isotope ecology, natural products authenticity testing, biobased content testing, AMS radiocarbon dating, water quality, heavy metal speciation, soil analysis, organic compound analysis, and quantitative and qualitative elemental analyses.

CAIS has two accelerators dedicated to radiocarbon measurement and houses the second largest stable isotope laboratory in the U.S. Additional analytical facilities include: ion chromatography (IC, HPLC, GC, GC/MS, GC/MS/MS); X-ray fluorescence; and inductively coupled plasma analysis (MC-ICP-MS, ICP-MS, ICP-OES).

cais.uga.edu

Center for Tropical & Emerging Global Diseases Cytometry Shared Resource Laboratory

The CTEGD Cytometry Shared Resource Laboratory provides access to and training for three flow analyzers with capabilities ranging from four-color to nine-color analysis as well as a Luminex multiplexing instrument. Two cell sorters – one user-operated S3 cell sorter (Bio-Rad) and one facility operated MoFlo XDP (Beckman Coulter) - also are available. Staff offer expert advice and consultation for the design and analysis of experiments.

ctegdcytometry.uga.edu

College of Veterinary Medicine Cytometry Core Facility

The CVM Cytometry Core Facility provides expertise and training in general principles of flow cytometry, confocal microscopy and bead-based multiplexing technology, experimental design, operation of core equipment, and data collection and analysis. Individual one-time experiments can also be run for or with clients. Use of the facility for educational and diagnostic purposes is encouraged.

cvmcytometry.ovpr.uga.edu

Comparative Pathology Laboratory

The Comparative Pathology Laboratory provides expert diagnostic and research pathology services to investigators using laboratory animals in their research projects. Gross pathology, histopathology, immunohistochemistry, electron microscopy, clinical pathology services, and phenotyping of genetically modified animals. Genetically modified mouse lines are available for cancer research.

vet.uga.edu/vpp/labs/comparative-pathology

Complex Carbohydrate Research Center Analytical Services

The Complex Carbohydrate Research Center (CCRC) offers custom synthesis and analysis of complex carbohydrates derived from animal, bacterial, fungal, and plant sources. Analyses of glycoconjugate-derived products include structural elucidation and validation of polysaccharides, glycoproteins, and glycolipids. Analytical Services offers training courses in principles, methods, and analytical techniques used to study complex carbohydrates.

ast.uga.edu

Complex Carbohydrate Research Center NMR Spectroscopy Facility

The CCRC NMR Spectroscopy Facility is used to determine molecular structures of carbohydrates and proteins and to investigate the structural and dynamical basis of protein-carbohydrate interactions. The CCRC NMR Facility consists of seven high-field Agilent spectrometers equipped for high-resolution liquid and semi-solid experiments.

ccrc.uga.edu/~ccrcnmr/nmrfacility.html

Georgia Advanced Computing Resource Center

The Georgia Advanced Computing Resource Center (GACRC) provides researchers with a high-performance computing and networking infrastructure; a comprehensive collection of scientific, engineering, and business applications; and consulting and training services. GACRC specializes in Linux/UNIX system administration, storage administration, computational computing, virtualization, and database administration.

gacrc.uga.edu

Georgia Electron Microscopy

Georgia Electron Microscopy (GEM) provides application of electron microscopy and related analytical methods for diverse research areas including biology, biomedical sciences, plant biology, geology, chemistry, textiles, archaeology, engineering, physics, and nanotechnology/materials analysis.

gem.uga.edu

Georgia Genomics Facility

The Georgia Genomics Facility (GGF) is a core sequencing and genotyping laboratory. Services include single tube and 96-well plate-based capillary (Sanger) sequencing, as well as next-generation DNA sequencing on Illumina platforms. The mission of the GGF is to enable and foster institutional science by providing expertise, state-of-the art resources, and necessary training to promote cutting-edge genomic research.

dna.uga.edu

Integrated Bioscience and Nanotechnology Cleanroom

The Integrated Bioscience and Nanotechnology Cleanroom (iBioNC) includes a 2,200-square-foot (Phase I) Class 100/1,000 part and a 1,000-square-foot (Phase II) Class 10,000 part. This is a multidisciplinary, nanotechnology-focused fabrication, characterization, and manipulation facility.

cleanroom.uga.edu

Proteomic and Mass Spectrometry

The Proteomic and Mass Spectrometry (PAMS) Core Facility is equipped with an ThermoScientific Orbitrap Elite mass spectrometer for high-resolution and high-mass accuracy analysis. It is coupled with a nano HPLC, increasing its capacity to analyze more complex protein mixtures. A Bruker Autoflex MALDI offers quick analysis of tryptic digests of pure proteins. In-gel digestion and subsequence analysis are available for protein identification. An in-house version of Mascot provides customers with the option of loading a database to search for protein identification.

pams.uga.edu

Quantitative Biology Consulting Group

The Quantitative Biology Consulting Group (QBCG) brings the combined expertise of multiple UGA quantitative biology consultants to bear on a single problem. Areas include:

- experimental design (e.g., power calculations, genomic technologies)
- sequence data generation, hosting large data sets (via the GGF, GACRC)
- data processing (e.g., sequence assembly & mapping; database searching, parsing)
- analysis of results (e.g., statistical significance)
- short- or long-term data storage

qbcg.uga.edu

Statistical Consulting Center

The Statistical Consulting Center (SCC) provides statistical consultation and collaboration to UGA faculty, staff, and students, as well as off-campus clients. The SCC's faculty and students provide expert statistical assistance in all stages of quantitative research, from proposal and study design through programming and interpretation of results.

stat.uga.edu/consulting

University of Georgia CoreServe

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