### OFFICE OF THE VICE CHANCELLOR FOR RESEARCH

618-453-5289 ovcr@siu.edu

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### Contact Us

Office of the Vice Chancellor for Research 900 S. Normal Avenue, MC 4344 Woody Hall 350

618-453-5289

Carbondale, IL 62901







### Research Support Facilities

Faculty, staff, and students across campus may use the services of these facilities for a reasonable fee. See below for descriptions. Most of these facilities are administered by the Office of Vice Chancellor for Research; some are administered by other units.

- Aquatic Research Laboratory and Saluki Aquarium
- · Core Facility for Ecological Analyses
- DNA Sequencing & Allele Analysis Facility
- · Fermentation Science Institute
- · Genomics & Robotics Services
- IMAGE (advanced microscopy; computer graphics and photography, including conference posters)
- <u>Laboratory Animal Program</u>
- Mass Spectrometry Facility

#### Aquatic Research Laboratory and Saluki Aquarium

(618) 453-5289

McLafferty Annex Collaborative Research Facility

Mail Code 4344

This facility will be used to raise both marine and freshwater animals for ecology, aquaculture, and conservation research and student training. Researchers will have access to dozens of replicated mesocosm environments and individual culture tanks designed to support work in marine biology, fisheries biology, aquaculture, environmental education, aquarium and zoo curation, herpetology, and coral husbandry.

#### Core Facility for Ecological Analyses

(618) 453-3218 Life Science II 417

Mail Code 6509

Manager: Amanda Rothert, mandy118@siu.edu

Director: Dr. Sara Baer, <a href="mailto:sgbaer@siu.edu">sgbaer@siu.edu</a>, 453-3228

Provides analysis of nutrients for water, soil, and tissue samples. Equipment includes OI Analytical Flow Solution IV, Thermo Flash 2000 Elemental Analyzer, Trilogy 7200 Fluorometer, Shimadzu GC-2014 and GC-8A.

### DNA Sequencing & Allele Analysis Facility

(618) 453-5727 or (618) 453-3121 Public Policy Institute Basement B7

Mail Code 4415

Operator: Ali Srour

Director: Dr. David Lightfoot (618) 453-1797)

Provides two-day DNA sequencing services and same-day user center support for plasmid, PCR, and BAC DNA. Short courses to teach the sequencing techniques are held regularly. The facility has PE377 gel sequencers as well as ABI3700 and CEQ8000 capillary sequencers. Sequences are derived from DNA or colonies in tubes or plates. Provides fragment size analysis with fluorescent labeled probes for microsatellites and other genetic markers. Highresolution melt and real-time PCR available. Visible or UV light excited fluors used.

# **Fermentation Science Institute**

(618) 453-7508

McLafferty Annex Collaborative Research Facility

Mail Code 6833 Director: <u>Dr. Matt McCarroll</u>

Supports independent and cross-disciplinary research at SIU in addition to providing analytical services and technical assistance to growers and producers. Facility capabilities currently include pH and YAN analysis, with plans to expand to grapes, wine, beer, hops, barley, must, and distilled spirits analysis.

# Genomics & Robotics Services

(618) 453-2606 or (618) 453-3121 Public Policy Institute Basement B1

Mail Code 4415

Manager: Ali Srour

Director: Dr. David Lightfoot ((618) 453-1797)

Provides robotic services attuned to high-throughput marker assisted selection, BAC and cDNA library construction and arraying, physical map generation, micro-array analysis, GMO content testing, genotyping, and genetic identity testing. The facility has a Genomic solution GS2 for colony picking, 384 well plate assembly, cherry-picking, high clone density nylon filter generation, and micro-array generation; a GeneTAC for array analysis; an ABI6700 and Qiaextractor for high-throughput DNA and RNA extractions; and a Biomek2000 and two Hydras for liquid handling, reaction assembly, and automated agarose electrophoresis. Real-time PCR available.

# IMAGE - Integrated Microscopy and Graphics Expertise

(618) 453-3730 Mail Code 4402

750 Communications Dr.

Provides training, technical service, and research in scanning electron, transmission electron, atomic-force, and light microscopy. Advanced capabilities include X-ray analysis, image analysis, and viewing of specimens under nearatmospheric conditions. See the web site for more information on available instrumentation and microscopy fees.

IMAGE also administers a computer graphics and photography facility (476 Life Science II), which offers consultation and technical assistance to faculty and students who need posters for research conferences or photographs or illustrations for research publications. For computer graphics, call Steve at (618) 453-3041; for photography, call Cheryl at (618) 453-3043. A brochure with a price list is available from the facility.

# <u>Laboratory Animal Program</u>

(618) 536-2346 1062 Life Science III Mail Code 6506

Director: Dr. Joseph Scimeca

A centralized facility for housing vertebrate animals used in research or teaching activities is accredited by the Association for Assessment and Accreditation of Laboratory Animal Care. It is maintained under the direction of a board-certified veterinarian with specialized training in laboratory animal medicine to ensure proper and humane care and management of animals and compliance with federal regulations and guidelines. All research and/or teaching activities involving vertebrate animals must be reviewed and approved by the Institutional Animal Care and Use Committee prior to commencing.

# Mass Spectrometry Facility

(618) 453-6428 Neckers 103 Mail Code 4409 Director: Dr. Mary Kinsel

Provides sample analysis, research, and training opportunities to the SIUC community. The facility has a ThermoFisher TRACE GC ultra/PolarisQ MS, an Applied Biosystems 4700 Proteomics Analyzer TOF-TOFMS, a Bruker Daltonics MicroFlex MS, and a Bruker Daltonics Esquire HCT MS equipped with an LCPackings nano-HPLC system.