



Summer 2021 Research Experience *for Undergraduates*



Fungal Genomics, Computational Biology and Systems Biology

This is a ten-week NSF REU program with a \$6,000 summer stipend. Our students go on to distinguished graduate programs including Harvard, University of Pennsylvania, Johns Hopkins, Albert Einstein, Boston University, Washington University, Morehouse School of Medicine, Emory University, and St. Jude's Children's Hospital. Our students successfully chart both academic and nonacademic paths at institutions and companies including Johns Hopkins, Goddard Space Center, Pfizer, Emory, Meril, NASA Langley, NIH, CDC, and Complete Genomics (Inc.). Begin building your personal network of future colleagues in the life sciences.

Contact: Jonathan Arnold (arnold@uga.edu) | Apply: <http://www.genetics.uga.edu/FGCB>

Crop Genetics and Genomics

The goal of this nine-week U.S. Dept. of Agriculture REEU (the extra 'E' is for extension) is to develop plant scientists that can address the challenges facing U.S. agricultural competitiveness and food production. Fellows are mentored by UGA faculty providing laboratory and field-based research experiences in crop genetics and genomics. Fellows will take part in a two-day, hands-on 'Plant Breeding Practicum' field course and a service-learning project to develop an understanding of the connection between research, extension and crop production. Professional development opportunities covering career options, research ethics, networking, and science and public communication are also part of the program. Students are supported with a \$4,500 stipend and housing on UGA campus.

Contact: Marin Brewer (mtbrewer@uga.edu) | Apply: <https://plantcenter.uga.edu/study/undergraduate-research/>

Department of Chemistry Summer Undergraduate Research Opportunity (SURO)

The Department of Chemistry at UGA hosts the Summer Undergraduate Research Opportunity (SURO) program. This is a nine-week program with a \$5000 summer stipend. SURO draws outstanding undergraduates from US and international universities to join active research groups in Chemistry. The projects are directed by faculty mentors, and the students are introduced to new and innovative areas of research in a variety of Chemistry sub-disciplines. This program seeks to provide students without prior research experience with the skills necessary to succeed as independent researchers. Information on faculty mentors, projects, and past summers can be found at:

<https://www.chem.uga.edu/summer-undergraduate-research-opportunities>

Contact: Dr. Amanda Frossard & Dr. Brandon Rotavera (chem-suro@uga.edu) | Apply: <https://www.chem.uga.edu/suro-program-applying>

Georgia Coastal Ecosystems LTER

The Georgia Coastal Ecosystems (GCE) LTER is an NSF-supported research project focused on the central Georgia coast. GCE LTER researchers study marshes and estuaries to understand how these ecosystems function, to track how they change over time, and to predict how they might be affected by future changes in climate and human activities. Field work for the GCE project is based at the University of Georgia Marine Institute on Sapelo Island, which has housing and laboratory space. Opportunities are available for students to work with researchers either in their laboratories at UGA or over the summer at Sapelo Island.

Contact: Kristin McNair (kfmcnair@uga.edu)

Apply: http://gce-lter.marsci.uga.edu/public/employment/summer_internships.asp

Undergraduate Biology Education Research version 3 (UBERV3)

This nine-week training program involves undergraduates in designing and conducting research on undergraduate biology teaching and learning with mentorship from faculty from the University of Georgia life science departments and College of Education. The goals of the program are to develop undergraduates' knowledge and skills in biology education research, encourage undergraduates to pursue doctoral study of biology teaching and learning, expand the diversity of the talent pool in biology education research, and contribute to the development of theory and knowledge about biology education in ways that can inform biology instruction.

Contact: Dr. Peggy Brickman (brickman@uga.edu) | Apply: <https://uber.uga.edu>

Summer Undergraduate Research Experience in Neuroscience (NSURE)

This eight-week training program is designed to provide students with an immersive research experience in neuroscience—from project design, data collection and analyses, to presentation and dissemination. NSURE engages students in innovative research approaches across multiple disciplines and model systems that extend from yeast to primates. Our program provides rigorous theoretical and methodological training in neuroscience utilizing the latest in biomedical technologies. In addition to this research focus, students receive science communication and professional development training. Special attention is given to the recruitment of students from Historically Black Colleges and Universities, students from groups underrepresented in STEM disciplines, and students from primarily undergraduate institutions.

Contact: Dr. Jim Lauderdale (NSURE@uga.edu) | Apply: <https://nsure.uga.edu>

Coastal Summer Semester

The Coastal Summer Semester is an immersive learning experience in marine ecology. The program will take place June 12 – July 10 at the University of Georgia Marine Institute (UGAMI), on Sapelo Island. Students and faculty live on-site at the Marine Institute. UGAMI is a world-renowned center for marine ecological research attracting a vibrant community of scientists and students from around the globe. The program consists of two courses, totaling 8 credit hours: MARS 4500 – Field Study in Oceanography and Marine Methods and Independent Research (either MARS 4510 or BIOL 4960R). Students will be introduced to the marine organisms and ecosystems of the Georgia Coast, and will be trained in the field and laboratory methods used to investigate them. Using this information, they will design and carry out a research project under the mentorship of faculty.

Contact: Dr. Damon Gannon (dgannon@uga.edu) | Apply: <http://studyaway.uga.edu/?go=CoastalSummerSemester>

Population Biology of Infectious Disease

Our nine-week research experience provides students with research experiences at the intersection of quantitative and experimental studies in infectious disease biology. Our goal is to catalyze a new generation of interdisciplinary infectious disease scientists by providing knowledge of life science perspectives and training in computational and mathematical approaches. Faculty mentors come from a variety of fields including ecology, genetics, entomology, veterinary science, public health, epidemiology, and mathematics. We encourage applications from students majoring in ecology and biological sciences fields, as well as those majoring in fields such as mathematics, computer science and statistics.

Students receive a \$5175 stipend, on-campus housing, and travel assistance.

Contact: Dr. Sonia Altizer (saltizer@uga.edu) | Apply: reu.ecology.uga.edu

UGA Skidaway Institute of Oceanography

The UGA Skidaway Institute of Oceanography (SkIO) is located on the coast in Savannah, Ga., and is the home institution for the research vessel R/V Savannah. SkIO hosts a cohort of undergraduate interns each summer and matches those interns with world-renowned marine scientists based on mutual interests. Interns work closely with faculty in their research programs in biological, chemical, geological and physical oceanography to gain experience and build skills using cutting-edge research facilities and technology to explore fundamental research questions in marine science. This program runs for eight weeks and includes a stipend of \$3,000. Interested students are encouraged to visit SkIO's website (<https://www.skio.uga.edu/people/faculty/>) to browse the profiles and research interests of SkIO faculty to find a scientist conducting research that interests them. Applicants are also encouraged to contact faculty members directly to discuss opportunities. On-campus housing is available at minimal cost.

Contact: Dr. Clifton Buck (csbuck@uga.edu) | Apply: <https://www.skio.uga.edu/undergraduate-internships/>

Summer Undergraduate Fellowships in Genetics (SUNFIG)

In this nine-week program, students will be matched with a faculty mentor in the Department of Genetics and be integrated into a lab research team. Research in the Genetics Department is vibrant and diverse – students can choose to work with a faculty mentor in areas related to molecular biology, functional genomics, biotechnology, developmental genetics, ecology, and/or evolution. Students will engage in an authentic research experience, from project design to data analysis and presentation. Our program also provides training in bioethics and mentoring in professional development. The Genetics Department is committed to promoting diversity and inclusiveness to enhance the field of genetics and foster the careers of its developing scientists. We encourage applications from students from groups underrepresented in STEM fields.

Contact: Dr. Andrea Sweigart (sweigart@uga.edu)

Apply: <https://www.genetics.uga.edu/summer-undergraduate-fellowships-genetics-sunfig>

Molecular and Synthetic Microbiology

REU participants will conduct independent projects with supervision. A wide variety of research topics will address the diverse functions of bacteria, archaea, fungi, and other microbes. State-of-the-art techniques will be used in interdisciplinary approaches that combine knowledge from the fields of Genetics, Biochemistry, Physiology, Molecular Biology, Cellular Biology, and Ecology. Participants will each receive a \$5175 stipend in addition to a \$500 food allowance for the summer. Housing and most travel costs will also be covered. Students will stay in air-conditioned dorms on campus. The application deadline is February 19, 2021.

Contact: Dr. Vincent Starai (vjstarai@uga.edu) or Dr. Tim Hoover (trhoover@uga.edu)

Apply: <http://mib.uga.edu/reu-site-molecular-and-synthetic-microbiology>