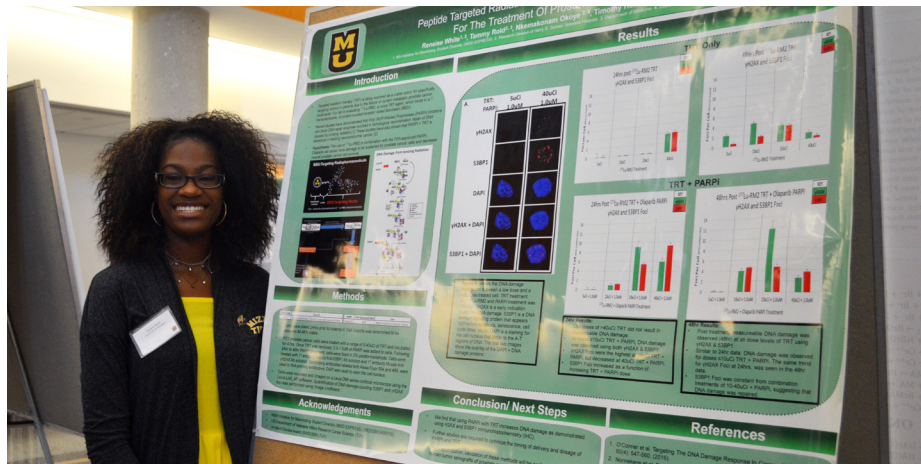




Missouri Louis Stokes Alliance for Minority Participation (MoLSAMP)

Summer 2018 Research Program at Mizzou



May 29 - July 28, 2018

**Application Deadline:
March 15, 2018**

Interns are provided:

- \$4000 stipend
- Free Room & Board in an MU Residence Hall
- Travel support to Columbia, if needed
- One hour of Research Credit

Research Areas include (but are not limited to):

Engineering Sciences | Chemistry | Physiology & Neurobiology | Plant Sciences | Physics & Astronomy
Math & Statistics | Geology | Computer Science & Informatics | Immunology | Animal Sciences
Ecology & Natural Resources | Bioengineering | Biochemistry | Cell & Molecular Biology | Genetics



Undergraduate Research
University of Missouri

Missouri Louis Stokes Alliance for Minority Participation (MoLSAMP)

Summer 2018 | Undergraduate Research at Mizzou

General Information: The Office of Undergraduate Research at the University of Missouri coordinates a number of summer research programs for undergraduates enrolled at other institutions. All programs run from May 30 - July 27 with travel days on May 29 & July 28 (9 weeks). Students live in on-campus air-conditioned housing (double rooms), and receive a meal plan paid by the program. Many programs provide one credit hour of research, travel to & from Columbia, and stipends starting at \$3600. **The MoLSAMP program at MU provides a \$4000 stipend.**

MoLSAMP Summer Program at Mizzou: MoLSAMP is a program funded by the National Science Foundation specifically for students at Missouri LSAMP schools (Harris-Stowe State University, Lincoln University, St. Louis Community College, Truman State University, University of Central Missouri, University of Missouri – St. Louis, and Washington University in St. Louis). Undergraduates from Alliance Schools selected for this program will live on campus in Columbia and conduct research for 9 weeks. This is a full-time program and students may NOT enroll in other coursework or hold part-time jobs. Students are expected to be in Columbia for the whole 9 weeks (no vacations); although, no activities are planned on weekends and students may go home if they wish. Most students find that staying in Columbia on weekends is beneficial to their overall experience. Students will participate in all aspects of the larger summer program at Mizzou including orientation, educational programming, social events, and the Forum (poster session) at the end of the summer on July 26, 2018. The MU Office of Undergraduate Research will process applications and make selections and research placements in collaboration with MU science faculty. We are seeking students with career interests that include scientific research.

Placement with Mentors: MU has more than 25 STEM departments. We encourage students to browse the MU website (missouri.edu) to become familiar with our departments, programs, and individual faculty research interests. Please be as specific as possible in your statement of research interests on your application. It will be most helpful to know what subspecialties and types of questions you are interested in, rather than generalities. For example, “biology” is too general. “Cellular Biology” is better and “How do cell membranes control permeability?” is even more helpful.

Eligibility: Applicants are expected to have completed at least one year of full-time college enrollment prior to June 2018 and be currently enrolled at a MoLSAMP college or university. Students graduating prior to December 2018 are not eligible. Students must be citizens or permanent residents of the U.S. Applicants must also have a GPA of 3.0 or higher, and **provide a letter of endorsement from your MoLSAMP site director.**

About Summer Research at Mizzou: Each year approximately 100 undergraduates conduct research at MU and participate in educational programming activities, creating a vibrant community of undergraduate scholars. Students will work on their own research project under the guidance of an MU faculty mentor and present their results at a poster Forum at the end of the summer program. Students become part of a research team that typically includes other undergraduate students, graduate students, lab technicians, and post-doctoral researchers.

Office of Undergraduate Research | undergradresearch.missouri.edu | ugr@missouri.edu

MU is a great place for undergraduates preparing for a challenging career in science research and education. Our Columbia campus includes schools and colleges of Arts & Science; Agriculture, Food & Natural Resources; Engineering; Health Professions; Human Environmental Science; Medicine; and Veterinary Medicine -- all within walking distance. MU is home to the nation's largest (10MW) nuclear reactor found on a college campus. The MU Research Reactor (MURR) provides advanced research opportunities for students and faculty in the neutron-related sciences and engineering and is an excellent facility for radiochemistry research.

Summer program alumni have entered graduate programs at University of California-Irvine, University of California-San Diego, University of Chicago, University of Colorado, Indiana University, Iowa State University, University of Michigan, University of Missouri, Purdue University, University of Virginia, Washington University in St. Louis, and the University of Wisconsin.

Educational Programming: In addition to their research work, students participate in a series of evening seminars and small group sessions designed to provide them with information about research, career preparation and options, and scientific ethics. Speakers from previous years have included MU faculty, a scientist from the Stowers Medical Institute, members of the National Academy of Science, clinical oncology researchers, science teachers, directors of graduate programs, and other scientists. Weekly small group seminars provide opportunities for students to focus on a topic and engage in discussion with peers and faculty members. These specialty discussions are open to all students, regardless of program affiliation. Social activities also provide opportunities for participants to get to know each other and other members of the MU science community. A mandatory orientation session that includes team-building activities is scheduled for Wednesday, May 30.

Examples of speakers and topics from our past summer programs:

- Bill Allen (Journalism) *A Career of Science Writing*
- Brandon Blakey (Applied Biosystems Genomic Analysis Division & 1992 Summer Intern Alumnus) *This is My Life: Industry Sales, Service & Consulting*
- Dr. Linda Blockus (Undergraduate Research) *Writing Effective Personal Statements*
- Dr. Jon Dyer (Dermatology & MU Intern Alumnus) *You're a pediatric what?!? Pediatric dermatology clinical research*
- Dr. Sherry Flint-Garcia (USDA) *Using sequence diversity to understand agronomic traits*
- Dr. Michael Garcia (Biological Sciences) *Insulin and your nerves: Myelin to multiple sclerosis*
- Dr. Linda Godwin (Physics & Astronomy) *Space: A Personal Perspective from Low Earth Orbit*
- Dr. Sheila Grant (Bioengineering) *Nanostructure Materials for Tissue Engineering*
- Dr. Pam Hinton (Nutritional Sciences) *Determinants of Bone Health*
- Dr. Casey Holliday (Pathology & Anatomical Sciences) *21st Century Paleontology: Functional morphology and evolution of the reptile head*
- Dr. Salman Hyder (Veterinary Biomedical Sciences) *Tumor Angiogenesis: A Target for Treatment and Prevention of Breast Cancer*
- Dr. Marc Johnson (Molecular Microbiology & Immunology) *How do viruses put themselves together?*
- Dr. Brick Johnston (Health Psychology) *The Neuropsychology of Spirituality: Identifying the Neurologic Mechanisms of Mysticism after Tramatic Brain Injury*
- Dr. Gavin King (Physics & Astronomy) *Poking Molecules with Sharp Needles: Biophysical Insign via Force Microscopy*
- Dr. Mannie Liscum (Biological Sciences) *Plants do cool things too: Molecular genetics and cell biology of phototropism*
- Dr. Dennis Lubahn (Biochemistry and Animal Sciences) *How wanting to live forever leads to one-eyed sheep and prostrate cancer*
- Dr. Joel Maruniak (Biological Sciences) *Finding your right livelihood*
- Dr. Stephanie McKay (Animal Sciences) *Bovine Genome: Development of the first generation bovine haplotype map*
- Dr. Fred vom Saal (Biological Sciences) *Plastics-based endocrine disrupters and your health*
- Dr. Jack Schultz (Bond Life Sciences Center) *Talking science to the public: Why don't they listen?*
- Dr. Ray Semlitsch (Biological Sciences) *The graduate application process*
- Dr. Angela Speck (Astronomy) & Dr. Alan Whittington (Geological Sciences) *Balancing Academic Science Careers and Family Life*
- Dr. Gary Stacey (Plant Sciences) *The Importance of Public Policy to your Scientific Career*

Examples of Small Group Seminars from our past summer programs:

- Single Molecule Biophysics
- 3D Modeling and Printing
- Planning/Writing NSF GRF Essays
- Professional Development Topics for Sophomores and Juniors
- Professional Development for Students Seeking to Attend Graduate School
- Current Readings in Cancer Biology
- Medical School Seminar
- Learning to Read Scientific Literature
- Communicating Your Science
- Solar Eclipse of the Century!
- Science & Society: Evolution
- How Animals Work: Modern approaches to animal form and function

The Campus and Community: MU, the flagship campus of the University of Missouri system, is home to more than 33,000 students and 2,100 faculty. Columbia, midway between St. Louis and Kansas City, is a vibrant community with a population of more than 120,000. Columbia offers most of the benefits of large cities (restaurants, art, theater, music, and a variety of churches) and yet maintains the atmosphere and convenience of a small, diverse college town. There are numerous trails for walking, running, and biking, and a variety of city and state parks nearby.

Application Information: The deadline for applying to these programs is **Thursday, March 15, 2018**. Students must complete the attached application form and provide an unofficial transcript (including fall 2017 grades); at least one letter of recommendation (two preferred); a personal statement including career plans, prior research experience (if any); a statement of research interests; a resume; and **a letter of endorsement from your school's MoLSAMP site director**. Completed application packets should be sent to Office of Undergraduate Research, 150 Christopher S. Bond Life Sciences Center, University of Missouri, Columbia, MO 65211. FAX: 573-884-9395 **OR** completed electronically and emailed to ugr@missouri.edu. Questions can be directed to Jenn Brown, Assistant Director of Undergraduate Research (BrownJen@missouri.edu, 573-882-4818).

Please visit department websites or www.missouri.edu for comprehensive lists of faculty members and their research areas before completing your application form.

Office of Undergraduate Research | undergradresearch.missouri.edu | ugr@missouri.edu