



## General Information

The University of Missouri is home to more than 33,000 students and 2,000 faculty. We are in the middle of a state that's in the middle of the country seeking the farthest reaches of what is possible. Our diverse and thriving campus is nestled in the heart of downtown Columbia serving all walks of life. The perfect blend of small town and flourishing city, Columbia is consistently rated among the top places to live in the nation. This is where opposite ideas attract, grand challenges are explored every day, and where rigorous study meets the real world.

### All programs run May 27 - July 26 with travel days on May 27th and July 26th (9 weeks).

Students live in on-campus air-conditioned housing (double rooms) valued at \$1,500, and receive a meal plan valued at \$1,100 paid by the program. The Translational Biomedicine Program also provides one credit hour of research, travel to and from Columbia, and a stipend of \$5400 (minus taxes.)

Coordinated by the MU Office of Undergraduate Research, the **Undergraduate Research Internship Program** hosts 100+ students from institutions across the nation. Interns in the program participate in **educational and social activities** creating a vibrant, inclusive, and welcoming summer community. Under the guidance of an MU faculty mentor, students work on their own projects in collaboration with graduate students, lab technicians, and post-doctoral researchers and will showcase their results at a **poster Forum on July 24th**.

## Application Information

### The deadline to apply is February 16, 2025.

Students must complete the [application](#) and provide: an **unofficial transcript** (including Fall 2023 grades); **letters of recommendation** (two preferred); **a resume**; and a **personal statement** indicating career plans, prior research experience, and research interests.

## Eligibility

Applicants must have completed **at least two years of full-time college enrollment prior to June 2025**. Students should be pursuing a **major in fields related to the program** for which they are applying. Students graduating before December 2025 are not eligible. Students must be **citizens or permanent residents of the U.S.**

- Students are expected to have a minimum of a 3.0 GPA and have completed 2 years of college.
- Selection is partially based on the applicant's potential and motivation for graduate study (PhD level) in biochemistry.

## Educational Programming

As part of the program, students participate in a full series of evening and small group seminars designed to provide information about research, career preparation and options, and scientific ethics. Weekly small group seminars provide opportunities for students to focus on a topic and engage in discussion with peers and faculty. **Mandatory orientation sessions will be held May 28th & 29th.**

## MU and Columbia Communities

The MU Office of Undergraduate Research, and therefore the Summer Research Internship Program, is committed to fostering **an inclusive community of researchers**, free from discrimination and harassment as defined in MU's Student Standard of Conduct and Human Resources policy. As visiting students on the MU campus, participants in the Summer Research Internship Program join current MU students, faculty, and staff in holding the following values as the foundation of our identity as a community: **Excellence, Respect, Responsibility, and Discovery**. Upon this, we strive to build a comprehensive, engaging learning experience for all persons involved in this program.

Visit the  
program  
website!



<https://tinyurl.com/MUTranslationalBiomedicine>



The TBM summer research program is especially interested in recruiting undergraduates who are participants in their home institution's NIH-funded MARC or RISE programs. Students should indicate on their application if they are a participant in one of these programs and include a letter of recommendation from their Program Director and contact information. Stipends, transportation, housing/meals will be adjusted to fall within the NIH guidelines, in coordination with the student's home institution. The University of Missouri is home to a number of NIH training programs (ie, MARC, IMSD, PREP, T-32) and we are actively looking to provide undergraduates from other institutions with a summer experience at a research intense institution with wrap-around programming and support.

Students should expect to work 40 hours per week in their lab, attend mandatory weekly meetings, and join in various professional development activities. Additional questions may be directed to **Chelsea Stone** (c.stone@health.missouri.edu).

### Students will receive:

- Stipend of \$5,400 (minus taxes)
- On-Campus Housing (dorm room, two students per room) valued at \$1,500
- Meal Plan, valued at \$1,100
- Travel to/from Columbia, Missouri

*(Please see website for details and expense limitations)*

### Faculty Mentors

Students should list up to 8 faculty with whom they are interested in working on their application. **Note:** There is some program overlap for many mentors. Please check to ensure that mentors participate in the program(s) for which you are applying.

\*Please visit departmental websites for comprehensive lists of faculty members & their research before completing your application.

#### Biological Sciences <https://biology.missouri.edu/>

- James Birchler - Structure & function of chromosomes
- David Braun - Genetic control of carbon partitioning in plants
- Anand Chandrasekhar - Developmental biology of zebrafish
- Dawn Cornelison - Stem cells of muscle
- Michael Garcia - Molecular biology of neurofilaments
- Mannie Liscum - Phototropism & plant development
- Paula McSteen - Genetic regulation of meristem in plants
- Kathy Newton - Mitochondrial genetics of plants David Schulz - Neurobiology of ion channels
- Laura Schulz - Physiological mechanisms of placenta
- John Walker - Protein kinases in plant development



#### Biochemistry <https://biochem.missouri.edu/>

- Peter Cornish - Single molecule analysis of ribosome function
- Abraham Koo - Regulation of jasmonate plant hormone levels
- Dennis Lubahn - Botanical prevention of prostate cancer
- Scott Peck - Phosphoproteomics of plant signaling
- Brenda Peculis - Regulation of RNA stability
- Mick Petris - Trafficking & utilization of copper
- Charlotte Phillips - Mutant collagen molecules & bone diseases
- Gary Stacey - Functional genomics of plant development
- Jay Thelen - Proteomic analysis of seed development
- Peter Tipton - Chemical mechanisms of enzyme-catalyzed reactions
- Steve Van Doren - Protein structure determination using NMR
- Judy Wall - Environmental microbiology
- Gary Weisman - Purinergic receptors & human disease
- Shuqun Zhang - Biochemical & genetic analysis of MAPK in plants

#### Molecular Microbiology & Immunology

<https://medicine.missouri.edu/departments/molecular-microbiology-immunology>

- Donald Burke-Aguero - Aptamers as therapeutic agents against
- Dongsheng Duan - Development of novel gene therapies
- Bumsuk Hahm - Interplay between viruses & host immunity
- Marc Johnson - Role of gag & env proteins in HIV assembly
- Chris Lorson - Novel therapies for spinal muscular atrophy
- Habib Zaghouani - Mechanisms of autoimmune diseases

#### MU Informatics Institute <https://muii.missouri.edu/>

- Jianlin (Jack) Cheng - Bioinformatics, computational biology
- Dong Xu - Bioinformatics, computational biology

#### Veterinary Pathobiology <http://vpbio.missouri.edu/>

- Deborah Anderson - Molecular pathogenesis of Yersinia pestis
- Brenda Beerntsen - Mosquito-parasite interactions & innate immunity of mosquitoes
- Guoquan Zhang - Vaccine-induced protective immunity against Coxiella burnetii