PROGRAM BENEFITS

- Salary & tuition provided with successful progress toward Ph.D.
- Travel grants to (inter)national scientific conferences or workshops
- Interdisciplinary and collaborative research opportunities from biomedicine, plant stress and nutritional biology to structural biology, computational biology, metabolomics and proteomics.
- Supportive and nurturing research training environment by world-class faculty
- Professional career development opportunities beyond research and classroom
- Vibrant departmental graduate student community

For more information, visit: biochem.missouri.edu/grad-program

APPLY

Apply to the Mizzou Biochemistry Department through the University of Missouri Office of Graduate Studies at: applygrad.missouri.edu/apply/

Interested applicants should apply to the Department rather than individual professors. Please feel free to contact faculty with specific questions regarding research, but individual professors do not evaluate applicants to their laboratories.

CONTACT

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WHY BIOCHEMISTRY AT MIZZOU?

“The interactions with faculty and students both in the classroom and outside were essential in providing me with skills I continually use to navigate the academic world.” —Jermaine Jenkins, Research Professor, Univ. of Rochester School of Medicine & Dentistry

“Favorite Part of Mizzou Biochemistry: how diverse the department is in their research fields, which gives you a wide variety of options!” —Megan Sheridan, postdoc, Univ. of Cambridge, England

“I chose Mizzou because of its top notch professors in plant biochemistry and its collaborative environment.” —Erica LaMontagne, Elemental Enzymes - St. Louis

“Mizzou Biochemistry promotes a strong scientific community that actively cares about the happiness and well-being of its people.” —Jordyn Lucas, Ph.D. candidate, MU Biochemistry

“Why Mizzou: Their interdisciplinary approach to science is exceptional.” —Kwaku Tawiah, Ph.D. candidate, MU Biochemistry

“I had fantastic mentors who spent many hours not only making sure that my scientific training was the best but also that I was aware of all of my career options.” —Carina Collins, Assistant Professor, Dept. of Chemistry, Drury University

RESEARCH AREAS

Students rotate through three or four research labs their first year before choosing a PhD thesis home laboratory.

- Beamer, Lesa | Structural biology: X-ray crystallography of medically important proteins
- Burke-Aguero, Donald | Ribozyme mechanism and evolution; drug resistant HIV-1
- Chapman, Michael | Structural Biology: Viral-Host Interactions and Enzyme Dynamics
- Chen, Shi-Jie | Computational RNA folding and small molecule interaction; RNA nanotechnology
- Cornish, Peter V. | RNA folding and dynamics, single molecule fluorescence
- Deutscher, Susan L. | Phage display, peptide and antibody-based targeting of cancer
- Emerich, David W. | Enzymology, physiology and genomics of biological nitrogen fixation
- Erb, Laurie | Nucleotide receptors in inflammation and wound healing
- Folk, William R. | Gene expression and replication; plant medical uses; science education
- Gates, Kent | DNA damage by antitumor agents, toxins and mutagens
- Hannink, Mark | BTB-Kelch substrate adaptor family in development, oncogenesis and neurodegeneration
- Heese, Antje | Protein trafficking in immune signaling; plant-pathogen interaction
- Heng, Xiao | Virus-host interactions during the early replication of HIV-1; RNA structural biology
- King, Gavin M. | Single molecule biophysics
- Koo, Abraham (Jeong-Kyu) | Biotic interactions, stress signaling, lipid metabolism in plants
- Lubahn, Dennis | Biochemical genetics and epigenetics of estrogens and related receptors
- Mawhinney, Thomas P. | Carbohydrates in cancer and bacterial infection; cystic fibrosis
- McClure, Bruce | Mechanisms regulating inter- and intra-specific pollen compatibility
- Peck, Scott | Signaling in host-pathogen interactions; proteomics of stress responses
- Petris, Michael | Regulation of metal nutrition; impacts of copper on cancer and infectious disease
- Phillips, Charlotte | Inherited and acquired disorders of muscle and bone; medical genetics
- Quinn, Thomas P. | Cancer diagnostics, radiopharmaceutical imaging and therapy, nanomedicine
- Sharma, Krishna | Molecular basis of human disease
- Stacey, Gary A. | Functional genomics of plant-microbe interactions and plant development
- Sumner, Lloyd W. | Metabolomics technology development and applications, plant metabolism
- Tanner, John | Structure-based drug discovery targeting cancer and eukaryotic pathogens
- Thelen, Jay | Proteomics and phosphoproteomics of seed development, metabolism in oilseeds
- Tipton, Peter A. | Mechanistic enzymology for agriculturally and medically important enzymes
- Van Doren, Steven | Biophysical enzymology, NMR, metabolomics of pulmonary disease
- Weisman, Gary A. | Nucleotide enzymes in immunity, cardiovascular and autoimmune disease
- White, Tommi | Structural biology, Cryo-Electron microscopy
- Zhang, Shuqun | MAP kinases and signaling in plant defense responses
- Zou, Xiaojin | Computer-aided drug design; structure-function modeling of membrane proteins