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

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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biochemistry@missouri.edu

For more information, visit: biochem.missouri.edu/grad-program
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
Thelem, 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 receptors in inflammation, 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