

Neuroscience

About the Program

One of the most exciting and dynamic fields of modern science worldwide is neuroscience, the study of how the nervous system is organized and how it functions. The field of neuroscience encompasses many disciplines, including biology, biochemistry, computer sciences, electrical engineering (neural modeling of neural networks and biomedical instrumentation), neurology, neurosurgery, pharmacology, physics, physiology, psychology, psychiatry, and radiology. Neuroscientists have advanced our understanding of nervous system development, neural function, injuries of the nervous system, and disease processes. At MU, neuroscientists investigate the molecular and cellular organization of the nervous system, the structure and function of neural systems (including vision and hearing), behaviors generated by the nervous system, and neurological diseases and disorders.

Faculty

Professor W. David Arnold**, D. Beversdorf**, P. Carney**, A. Chandrasekhar, J. Coates**, D. Cornelison**, N. Cowan**, T. Cui**, S. Ding**, B. Froeliger**, G. Laxman**, D. Geary**, K. Gillis**, Z. Gu**, M. Hannink**, M-L Ho**, J. Kerns**, D. Kline**, T. Lever**, D-P Li**, A-L Lin**, C. Lorson**, S. Nair**, M. Petris**, J. Santin**, T. Schachtman**, J. Schul**, D. Schulz**, S. Sheinkopf**, S. Shukla**, S. Saxena**, M. Thakkar**, G. Weisman**, B. Zhang**

Associate Professor K. Aldridge**, C. Boychuk**, S. Christ**, K. Cummings**, M. Garcia**, M. Greenlief**, S. Hackley**, S. Hou**, J. Johnson**, T. Kazic**, T. Lever**, J. Limberg**, S. McKarns**, N. Nichols**, T. Pitts**, L. Reneker**, R. Whiting**, M. Will**

Assistant Professor S. Behuru**, R. Castoro**, S. Koh**, B. Kundu**, C. Larson**, B. Morgan-Jack**, L. Morett**, C. Nutter**

Assistant Research Professor C. Cirstea**, B. Ferguson**

Associate Teaching Professor D. Miller**

* Graduate Faculty Member - membership is required to teach graduate-level courses, chair master's thesis committees, and serve on doctoral examination and dissertation committees.

** Doctoral Faculty Member - membership is required to chair doctoral examination or dissertation committees. Graduate faculty membership is a prerequisite for Doctoral faculty membership.

Undergraduate

While MU does not offer undergraduate degrees specifically in neuroscience, the University does offer baccalaureate opportunities in a number of related areas in the other Schools and Colleges that make up the University. The catalog provides a complete list of these degree options (<https://catalog.missouri.edu/degreesanddegreeprograms/>).

Graduate

- MS in Neuroscience (<https://catalog.missouri.edu/graduateschool/neuroscience/ms-neuroscience/>)
- PhD in Neuroscience (<https://catalog.missouri.edu/graduateschool/neuroscience/phd-neuroscience/>)
- Graduate Certificate in Neuroscience (<https://catalog.missouri.edu/graduateschool/neuroscience/grad-cert-neuroscience/>)

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Students interested in the program are encouraged to contact members of the faculty directly by phone or e-mail, or visit the Interdisciplinary Neuroscience Program website.

Career Opportunities

MU's Interdisciplinary Neuroscience Program offers talented graduate students a chance to train for a career in one of the most exciting fields of modern science. Most of our students pursue research and teaching careers in basic neuroscience departments at prestigious research universities. Others opt for challenging and rewarding positions in applied fields, such as drug research or neurodiagnostic technology. Whatever their ultimate goals, the graduate neuroscientists who are trained at MU gain a solid understanding of the nervous system and of the experimental methods by which this knowledge is acquired.

Plan of Study

Typical undergraduate majors that constitute preparation for graduate work in neuroscience include, but are not limited to, biochemistry, engineering, biology, computer science, chemistry, physics, neurobiology, physics and psychology.

After completing comprehensive course work in molecular, cellular, systems and behavioral neuroscience, graduate students join a research laboratory and work with other lab personnel to master the relevant technical skills and theoretical concepts in their chosen field. Students in the Interdisciplinary Neuroscience Program have the opportunity to present their findings at lab meetings, seminars, journal club sessions, and both national and international professional scientific conferences.

Financial Aid from the Program

Some programs require an extra form or statement from those who wish to be considered for internal assistantships, fellowships or other funding packages. Check the program website or ask the program contact for details.