Boston University School of Medicine Division of Graduate Medical Sciences

Behavioral Neuroscience

Welcome to the Program in Behavioral Neuroscience

The Behavioral Neuroscience Ph.D. Program offers specialization in experimental neuropsychology, a broad field that encompasses the analysis of perceptual, cognitive, linguistic, affective, and behavioral changes observed in human neurobehavioral conditions that are consequent to stroke, alcohol and drug abuse, post-traumatic stress disorder, Alzheimer's disease, Parkinson's disease, schizophrenia, head injury, and other brain abnormalities. Basic knowledge about neurobehavioral disorders contributes to our understanding of normal and abnormal brain function. Current methods of clinical assessment, cognitive psychology, experimental design, neuroimaging, and basic neurosciences are integrated into a comprehensive program of clinical and basic research.

Program Highlights

The focus of the Ph.D. Program in Behavioral Neuroscience is on the delineation and analysis of perceptual, cognitive, linguistic, affective, and behavioral disorders observed in neurologic diseases, since our understanding of these disorders helps us explore normal brain function and its modification by pathology. Students are trained in a variety of clinical assessment, cognitive psychology, experimental design, and the neuroscience methods through an integrated program of clinical and basic research. Most faculty and their students study clinical populations with neurological disorders that affect higher processes, particularly syndromes involving selective impairment of functional systems such as memory, emotion, language, or purposeful movement.

The faculty of the Behavioral Neuroscience Ph.D. Program is comprised of members of the Boston University School of Medicine's Departments of Anatomy & Neurobiology and Neurology, and the Division of Psychiatry. Many faculty members hold joint appointments at the Department of Veterans Affairs [VA] Healthcare System in Boston or Bedford, MA, providing a rich learning and research environment for trainees.

The intent of the course requirements is to provide students with a firm foundation in basic principles and methods of Experimental Neuropsychology. Each student shall fulfill the minimum requirements corresponding to the major area of specialization as well as the following courses:

Human Neuropsychology Seminars I and II Neuropsychological Assessment Basic Neurosciences Neuroimaging Seminar Communication Disorders Brain Asymmetry: Functional & Structural Hemispheric Differences Child Clinical Neuropsychology Forensic Neuropsychology Case Studies in Neuropsychology Statistics Functional Neuroanatomy Research in Behavioral Neuroscience Students with primary interests in Aphasia will be required to take an additional course in Linguistics. Students with primary interests in Psychopharmacology will be required to take additional courses in Pharmacology. Each student will work with an advisor to develop a plan of course work tailored to the student's background experience and ultimate career goals.



Students will also

display in-depth preparation by passing written and oral parts of the Ph.D. Qualifying Examination in at least five areas, of which the following are examples:

Language disorders Disorders of purposeful movement Dementias and pathology of learning and memory Affective disorders Visuospatial and other perceptual problems Developmental disorders Neuropsychology of alcoholism Neuropharmacology Behavioral pharmacology Frontal brain systems Neuroimaging Psychoneuroimmunology Cerebral dominance

Research Interests

Parkinson's disease

The major research interests of the Behavioral Neuroscience faculty include:

Neuropsychological sequelae of brain damage

Behavioral consequences of brain lesions in nonhuman animals Brain laterality in healthy people and in brain damaged patients Effects of alcoholism on cognitive and emotional function Clinical effects of various treatments on neurological patients Ethical issues in working with human research participants Memory disorders Language and the aging brain Posttraumatic Stress Disorder Sleep and its disoders Autistic spectrum disorders Traumatic brain injury Alzheimer's disease

Career Paths

Graduates of the Behavioral Neuroscience Ph.D. program have secured outstanding post-doctoral fellowships and faculty positions at institutions such as Harvard Medical School's Center for Sleep and Cognition and the Center for Morphometric Analysis, McLean Hospital, University of California at San Diego, Saratoga Hospital and Saratoga County Mental Health Center, Boston University, and University of Vermont School of Medicine.

Boston and Boston University Community

Boston University is located in the heart of Boston- one of the nation's most dynamic and vibrant cities. Boston is a hub of cosmopolitan style, intellectual inquiry, and cultural opportunity. Boston is also an accessible city and the "T"- Boston's network of subways, trolleys, and buses- makes it easy to explore the history and culture of the city.

Boston University is an independent, coeducational, nonsectarian university housed on the Charles River and the Medical Center campuses, which are located 3 miles from one another in Boston. Boston University's academic diversity meets the needs of one of the largest bodies of scholars in the world. Its sixteen schools and colleges provide students with the advantages of a large contemporary educational complex, including opportunities to conduct interdisciplinary research, meet students from other schools and colleges, and participate in a wide array of extracurricular activities and sports.

Boston University is home to nearly 500 social, athletic and artistic organizations. The South End Fitness Center, located near the Medical Campus, and the Boston University Fitness and Recreation Center on the Charles River Campus, provide superb state-of-the-art facilities for exercise, fitness and wellness programs. BU competes in 23 NCAA Division I varsity sports and our Terriers were the 2009 NCAA Men's Hockey Champions.

Boston and the surrounding areas offer a rich selection of cultural and recreational activities, including museums, music and theater, major league sports teams, and skiing, to name a few. Close by are Cape Cod, the White Mountains, and the picturesque New England countryside.

Student Life

Student Services

The Division of Graduate Medical Sciences office is the primary resource for graduate student services at the School of Medicine. The Division office provides travel grants for students to present their work at scientific conferences and offers professional development workshops to help students launch their scientific careers. The GMS Office hosts special events such as Russek Day to celebrate student research accomplishments, Arts Day to showcase the artistic talents of all members of our community, and Hockey Night to cheer the BU team on to victory. The GMS Office collaborates with the Office of Diversity and Multicultural Affairs to foster an appreciation of cultural competence and health disparities and their role in biomedical science research.



Financial Support

All students in good standing in the Ph.D. program in the Department of Behavioral Neuroscience receive tuition and health benefits as well as a stipend for duties as a research assistant.

"I decided to attend BU School of Medicine for my Ph.D. for basically three reasons. The Research: there is a wide variety of top level research to choose from. The People: the environment at BU is very friendly and collaborative. The Location: Boston is a fantastic city to live in!"

Boston University Medical Campus, home to the Schools of Medicine, Dentistry, and Public Health, is located in the historic South End neighborhood of Boston. Many streets in the area have elegant Victorian brownstone buildings and homes built in the 1800s. The South End has one of the most diverse populations in the city. It is a short walk to shops, restaurants and a thriving arts community. Boston University Medical Campus is linked to its Charles River Campus by The Bus, a free shuttle service. GMS students take advantage of the tremendous academic and extracurricular opportunities on both campuses.

Doctoral students become part of our diverse community through the Division of Graduate Medical Sciences and the Graduate Medical Sciences Student Organization (GMSSO), a well-organized student group representing graduate students from our 14 doctoral programs. The GMSSO arranges social activities, coordinates campus-wide social action initiatives, and publishes the Graduate Student Survival Guide, a handy overview of housing, transportation, attractions and FAQs for new students.

Contact Information:

Ms. Rose Razzino Program in Behavioral Neuroscience Boston University School of Medicine 72 East Concord Street, L-815 Boston, MA 02118

Phone: 617-638-4803 Fax: 617- 638-4806 Email: hcr@bu.edu

