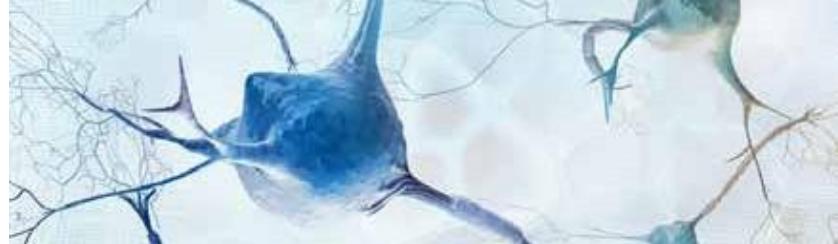


# GRADUATE PROGRAMS IN NEUROSCIENCE



Our students are our top priority.

Discovering how the brain works holds the key to understanding phenomena as basic as breathing or as complex as thinking and having emotions. Recent advances have helped unlock the puzzle of how neurobiological processes impact mental and physical health. Yet scientists have only just begun to understand such processes.

Neuroscience research also reveals insights into how changes in the structure and function of the nervous system lead to neurological and psychiatric diseases. Identification of the determinants of these pathological processes is essential for treatment, intervention or management of diverse neurobiological conditions ranging from depression to neurogenerative disorders to brain injury to chronic pain to obesity to dyslexia.

Understanding neurobiological processes sheds light on the links between physical and mental health outcomes, and how these outcomes are further affected by traumatic and chronic psychosocial, cultural, and environmental stressors. These determinants provide a basis for prevention, as well as broader interventions to alleviate risks.

Our faculty members engage in collaborative research programs covering learning and memory processes, social dynamics, hormonal involvement in behaviour and pathology, molecular biological processes in disease, brain-immune interactions in psychological and neurodegenerative disorders, and the role of environmental and social stressors on vulnerability and resilience to

physical and mental health disorders. Our research covers the entire life span, from the fetus to the elderly.

Our MSc and PhD degree programs train students to design, perform, analyze and communicate innovative research as they work alongside top mentors in a nurturing and supportive environment. Students have access to state-of-the-art facilities in microscopy, histology, neurochemistry, behavioural analysis, rodent and human electrophysiology and neuroimaging, chemo- and optogenetics, and molecular genetic analysis. Cutting edge human research facilities enable sophisticated quantitative and qualitative approaches, use of epidemiological techniques, and community-based research with Indigenous peoples, disadvantaged groups, or other at-risk populations. Students gain a combination of technical, theoretical, analytic and translational skills that equip them for a range of careers.

## DEGREES OFFERED

MSc, PhD

## CAREER OPTIONS

Graduates from our programs can pursue career opportunities in academia, education, and health-related government, non-governmental, and private sector organizations. PhD alumni interested in academia can potentially pursue postdoctoral fellowships leading to careers as

research scientists in universities, hospital research centers, and government research units.

Graduates with an MSc or PhD who are interested in health professions might consider careers (in some cases following further education) such as medicine, rehabilitation counsellors, behavioural therapists, speech-language pathologists, public health officers, microbiologists, genetic counsellors, biomedical lab technicians, health planners, consultants, toxicologists, youth workers, or mental health workers.

Within non-governmental agencies, government, and the private sector, career paths may include knowledge broker, science communicator, technical writer, pharmaceutical sales, consultant, policy analyst, patent officer, and forensic scientist.

## FALL APPLICATION DEADLINE

**February 1**, in order to be eligible for funding

## ADMISSION REQUIREMENTS

**MSc:** A Bachelor of Science degree in neuroscience, psychology, biology or a related field with a completed bachelor's thesis or equivalent, a minimum B+ average and research experience.

**PhD:** A master's degree in neuroscience, psychology, biology or related field with a minimum A- average.