The Neuroscience collaborative specialization provides an opportunity for MSc/MBS/PhD students engaged in research in the rapidly expanding field of neuroscience, to combine their departmental degree program with multidisciplinary exposure to the field of neuroscience. This unique combination of multidisciplinary studies provides students with the best possible foundation for academic careers in neuroscience and related areas. The collaborative specialization includes participation from core faculty in the following departments: Animal Biosciences, Biomedical Sciences, Clinical Studies, Human Health and Nutritional Sciences, Integrative Biology, Molecular and Cellular Biology, Pathobiology, Population Medicine and Psychology. Students wishing to pursue a Master’s or PhD degree with the designation Neuroscience must enter the collaborative specialization in Neuroscience through a participating department.

**Administrative Staff**

Boyer Winters  
Director (3005 MacKinnon, Ext. 52163)  
bwinters@uoguelph.ca

Lana Trick  
Graduate Program Coordinator (4003 MacKinnon Extension, Ext. 53518)  
ltrick@uoguelph.ca

Robin Sorbara  
Graduate Program Assistant (4014 MacKinnon, Ext. 53508)  
robinfra@uoguelph.ca

College Representatives  
Craig Bailey (OVC)

**Graduate Faculty**

*This list may include Regular Graduate Faculty, Associated Graduate Faculty and/or Graduate Faculty from other universities.*

**Naseem Al-Aidroos**  
B.Sc. Waterloo, MA, PhD Toronto - Associate Professor  
Graduate Faculty

**Craig D. Bailey**  
B.Sc., PhD Queen’s - Associate Professor  
Graduate Faculty

**Andrew J. Bendall**  
B.Sc. Australian National, PhD Macquarie - Associate Professor  
Graduate Faculty

**Leah Bent**  
B.Sc., M.Sc. Guelph, PhD British Columbia - Associate Professor  
Graduate Faculty

**Nicholas J. Bernier**  
B.Sc. McGill, Diploma Aquaculture Malaspina College, M.Sc. British Columbia, PhD Ottawa - Professor  
Graduate Faculty

**Elena Choleris**  
B.Sc., PhD Parma (Italy) - Professor

**Graduate Faculty**

**Donald Dedrick**  
BA, MA Carleton, PhD Toronto - Associate Professor  
Graduate Faculty

**Mark J. Fenske**  
B.Sc. Lethbridge, MA, PhD Waterloo - Professor  
Graduate Faculty

**Christopher Fiacconi**  
B.Sc. Western, PhD McMaster - Assistant Professor  
Graduate Faculty

**Andreas Heyland**  
B.Sc., M.Sc. Zurich, PhD Florida - Professor  
Graduate Faculty

**Fiona James**  
HB.Sc. Toronto, M.Sc. Western, DVM, D.V.Sc. Guelph, Dipl. ACVIM - Assistant Professor  
Graduate Faculty

**Nina Jones**  
B.Sc. Guelph, PhD Toronto - Associate Professor  
Graduate Faculty

**Bettina E. Kalisch**  
B.Sc., M.Sc., PhD Queen's - Associate Professor  
Graduate Faculty

**Jibran Khokhar**  
B.Sc. Queen's, PhD Toronto - Assistant Professor  
Graduate Faculty

**Frederic Laberge**  
B.Sc., M.Sc. Laval, PhD Manitoba - Associate Professor  
Graduate Faculty

**Jasmin Lalonde**  
BA Ottawa, MA, PhD McGill - Assistant Professor  
Graduate Faculty

**Francesco Leri**  
BA, MA, PhD McGill - Professor  
Graduate Faculty

**Ray Lu**  
B.Sc. Wuhan (China), M.Sc. Beijing Medical, PhD Saskatchewan - Associate Professor  
Graduate Faculty

**David W. L. Ma**  
B.Sc., PhD Alberta - Professor  
Graduate Faculty

**Neil J. MacLusky**  
B.Sc. Leeds, PhD London - Professor  
Graduate Faculty

**Georgia Mason**  
BA, PhD Cambridge - Professor  
Graduate Faculty

**Robert L. McLaughlin**  
B.Sc. Windsor, M.Sc. Queen’s, PhD McGill - Associate Professor
Neuroscience

Graduate Faculty

Daniel V. Meegan
BA SUNY Albany, PhD McMaster - Associate Professor
Graduate Faculty

Robert T. Mullen
B.Sc., PhD Alberta - Professor
Graduate Faculty

Jennifer Murray
B.Sc. Nebraska-Kearney, MA, PhD Nebraska-Lincoln - Assistant Professor
Graduate Faculty

Lee E. Niel
B.Sc. Simon Fraser, PhD British Columbia - Assistant Professor
Graduate Faculty

Geoffrey A. Power
BKin, M.Sc. Memorial, PhD Western - Associate Professor
Graduate Faculty

Rebecca Shapiro
B.Sc. McGill, PhD Toronto - Assistant Professor
Graduate Faculty

John Z. Srbely
B.Sc. Laurentian, DC Canadian Memorial Chiropractic College, PhD Guelph - Associate Professor
Graduate Faculty

Lana M. Trick
B.Sc. Calgary, MA, PhD Western Ontario - Professor
Graduate Faculty

Lori A. Vallis
B.Sc., MA Ottawa, PhD Waterloo - Associate Professor
Graduate Faculty

Terry Van Raay Van Raay
B.Sc. Windsor, M.Sc. Guelph, PhD Utah - Associate Professor
Graduate Faculty

Tina M. Widowski
BS, MS, PhD Illinois - Professor
Graduate Faculty

Boyer D. Winters
BA Dalhousie, PhD Cambridge - Professor
Graduate Faculty

John L. Zettel
BS Waterloo, M.Sc., PhD Toronto - Associate Professor
Graduate Faculty

MSc/MBS Collaborative Specialization

The MSc/MBS collaborative specialization in Neuroscience enables students engaged in neuroscience research to combine their departmental degree program with a multidisciplinary specialization in the field of neuroscience.

Admission Requirements

MSc/MBS students in the collaborative specialization in Neuroscience must meet the admission requirements of the participating department in which they are enrolled. The application process has two stages: first, application to the primary program of interest, identifying interest in the collaborative specialization as a secondary focus. If the student is admitted to the primary program, the second stage is then admission to the collaborative specialization.

Program Requirements

Students in the MSc/MBS collaborative specialization must complete NEUR*6000 Principles of Neuroscience and a major project/paper or thesis in the field of Neuroscience. Further, student must register for NEUR*6100 Seminar in Neuroscience each term that they are in the collaborative specialization. In NEUR*6100 Seminar in Neuroscience, students and faculty will meet once a month to discuss issues/ hear talks/ present research in neuroscience.

Requirements of this collaborative specialization may also serve as elective requirements in the student's home program.

PhD Collaborative Specialization

The PhD collaborative specialization in Neuroscience enables students engaged in neuroscience dissertation research to combine their departmental degree program with a multidisciplinary specialization in the field of neuroscience.

Admission Requirements

PhD students in the collaborative specialization in Neuroscience must meet the PhD admission requirements for the participating department in which they are enrolled.

Program Requirements

If a student enters the PhD collaborative specialization in Neuroscience at the doctoral level, students must complete NEUR*6000 Principles of Neuroscience, or show evidence of course equivalence in prior training. Students must be engaged in neuroscience dissertation research. During each term of their program of studies, doctoral students must enroll in NEUR*6100 Seminar in Neuroscience. The seminar will meet monthly. Students must take their qualifying exams within five semesters of entering the program, as required by University graduate policies. One member on the qualifying exam committee must be a core member of the collaborative specialization in Neuroscience outside the student's home department or a faculty member from another university approved by graduate studies. As well one member of the student's advisory committee must be a core member of the neuroscience collaborative specialization outside the student's home department or a faculty member from another university approved by graduate studies.

Requirements of this collaborative specialization may also serve as elective requirements in the student's home program.

Courses

NEUR*6000 Principles of Neuroscience Unspecified [0.50]
This course is designed to ensure that graduate students with diverse neuroscience backgrounds registered in the collaborative specialization in Neuroscience are exposed to the fundamentals in all areas of neuroscience.

Department(s): Department of Biomedical Sciences
Location(s): Guelph
NEUR*6100 Seminar in Neuroscience Unspecified [0.00]
This course will expose graduate students to some of the major theories, issues and methodologies driving research in neuroscience. Students will learn to critically evaluate presentations by researchers in this field as well as to communicate the results of their own research.

Department(s): Department of Psychology
Location(s): Guelph