

Department of Medical Neuroscience

Graduate Student Handbook

**Department of Medical Neuroscience
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INTRODUCTION

The Faculty of Graduate Studies sets the standards and regulations for graduate students to follow at Dalhousie University. The regulations and procedures of the University and the Faculty of Graduate Studies can be found at: [Graduate Studies Calendar](#)

This handbook is designed to help graduate students understand the rules, regulations, and procedures of the Faculty of Graduate Studies, Dalhousie University, and the Department of Medical Neuroscience.

The Department provides support for graduate students through a standing committee, the Graduate Studies Committee. Students may also contact the Graduate Coordinator. There is also administrative support provided by the Graduate Studies Administrative Secretary.

Please note that the procedures outlined in this handbook will apply to all graduate students for the duration of their degree program. Any further revisions to the handbook will apply to those students entering the program after the date of revision.

GRADUATE PROGRAMS

Program Overview

The Department of Medical Neuroscience offers MSc and PhD programs in Medical Neuroscience. These programs provide a sound multidisciplinary background in neuroscience and developmental biology. Students are trained in the field of modern-cellular and molecular neuroscience as a foundation to stimulate curiosity-driven neuroscience research and to develop effective strategies to detect, treat, and cure diseases of the nervous system.

Program Requirements

MSc Program

MSc candidates must satisfactorily complete 13 credit hours of courses which includes the required MNSC 5200.01 Medical Neuroscience MSc Graduate Seminar (registration required during each term of study) and MNSC 6101.03 Principles of Neuroscience: Cellular & Molecular Neuroscience. An additional 9 credit hours of elective courses are required, selected from courses offered by the Department, or where appropriate, from those offered by other departments. Thesis research (MNSC 9000.00 MSc Thesis), preparation and oral defence of a thesis is required.

PhD Program

PhD candidates must satisfactorily complete: MNSC 5230.01 Medical Neuroscience PhD Graduate Seminar (registration required during each term of study) and MNSC 6101.03 Principles of Neuroscience: Cellular & Molecular Neuroscience. For students transferring from the MSc program to the PhD program, or for students admitted directly to the PhD program, a comprehensive examination (PHDP 8000.00: Doctoral Comprehensive Requirement) should be taken in the second year of the program or not later than one full year prior to thesis submission. Thesis research (MNSC 9530.00: PhD Thesis), preparation and oral defense of a thesis are required.

Graduate students have a maximum period of time to complete all degree requirements. The normal upper limits for completion of a Master's is 5 years and 6 years for a Doctoral degree. A student cannot register in a program beyond 10 years from their initial registration.

ADDITIONAL GRADUATE COURSES OFFERED BY THE DEPARTMENT

ANAT 5000.03 Clinical Anatomy for Occupational Therapists (requires permission of the instructor: This course examines the gross anatomical structure of the human body in detail, with emphasis on the musculoskeletal and nervous system including an overview of the cardio-respiratory system. The functional relationship between the anatomical structures and the physiological, biomechanical and kinesiological applications will be highlighted to appreciate how the body works.

ANAT 5135.06 Topics in Mammalian Embryology and Molecular Developmental Biology: The course will cover various topics in general embryology, histology and molecular developmental biology. Students will learn how and why genetically engineered mice are generated. They will become familiar with different phenotypic analyses of mice and mouse embryos that are used as models of human diseases

ANAT 5217.06 Functional Human Anatomy

MNSC 5063.03 Neurobiology of the Autonomic Nervous System: Overview of classical concepts of peripheral autonomic functions, and their re-evaluation in light of recent research. Discussion of the roles of autonomic neurons in control of specific end-organs will be emphasized.

MNSC 5070.03 Chemical Neurobiology: The goal of this course is to acquaint the student with neurotransmitters and neuromodulators, including excitatory amino acids, acetylcholine, monoamines, neuropeptides. Anatomical, biochemical, physiological, pharmacological, behavioral, and clinical aspects of individual neurotransmitter systems will be discussed.

MNSC 5100.03 Human Neuroanatomy: Lectures and labs designed to acquaint students with the anatomy and organization of the human central nervous system. Topics include: cellular morphology; gross and microscopic anatomy of the spinal cord, brain stem, diencephalon (thalamus and hypothalamus), and telencephalon (cerebral hemispheres); blood supply of the

CNS, meninges, and cerebrospinal fluid. Laboratory exercises involve exposure to aspects of microscopic and ultrastructural morphology of the CNS, examination of selected cross sections of spinal cord, brain stem, and diencephalon and telencephalon, and dissection of the brain.

MNSC 5170.03 Special Topics: This is a flexible course permitting students to work closely with one or several faculty members; the content of the course is determined by the individual student in consultation with the faculty member involved and is intended to enable the students to take advantage of specialized educational opportunities that fall outside of the normal course offerings of the Department.

MNSC 5171.03 Special Topics: This is a flexible course permitting students to work closely with one or several faculty members; the content of the course is determined by the individual student in consultation with the faculty member involved and is intended to enable the students to take advantage of specialized educational opportunities that fall outside of the normal course offerings of the Department.

MNSC 6103.03 Principles of Medical Neuroscience: This course will introduce students to medical neuroscience aspects of the nervous system operation and provide the experience evaluating current literature in a variety of fields and technical areas pertaining to medical neuroscience.

Final decisions about course selection must be made in consultation with your supervisor and approved by your supervisory committee.

For further information about courses consult the [Graduate Studies Calendar](#) and, to learn which courses are offered, and when, and where, see the [timetable](#).

Seminars

MNSC 5200.01 Medical Neuroscience MSc Graduate Seminar and MNSC 5230.01 Medical Neuroscience PhD Graduate Seminar are required courses. Successful completion of which solely requires participation. Students must be registered in each term while they are in their degree program, either MSc or PhD.

Successful completion of MNSC 5200.01 (Masters students) and MNSC 5230.01 (PhD students) requires the completion in all of the course components listed below:

Components included:

1) Participation in a Responsible Conduct of Research training session provided by the Professional & Research Education Program (PREP)

<https://www.dal.ca/faculty/prep/programs/education-training.html>

2) Mandatory attendance at Medical Neuroscience departmental seminars and delivery of a seminar – Students must attend all seminars which are held mostly during the fall and winter terms. Speakers, titles and locations will be advertised in advance. Attendance will be monitored and students will only be considered as being present if they arrive within 10 minutes of the start of the seminar. Students may be absent for no more than 20% of seminars over each 12-month period of study, however the absences must be justified. (Absences resulting in students being away from the university, for valid reasons will not be included in the attendance assessment. These absences must be approved by the Graduate Studies Coordinator in advance).

MSc students are required to give at least one 25-30 minute seminar in the second year of their program. Students wishing to give more than one seminar during the course of study are welcome to do so.

PhD students are required to give at least 2 full (45-50 minutes) seminars, with the first in their second year, and a second one at some point during the remainder of their program. Students wishing to give more than 2 full seminars during the course of study are welcome to do so.

Supervisors will provide an evaluation and constructive feedback on seminars presented by their students.

3) Presentation of research results at local, national or international conferences – During the second year of study, students must present their research work, either orally or in poster format, at a local, national, or international research conference. This could include presenting at a research day affiliated with the Faculty of Medicine such as, but not limited to, The Faculty of Medicine Graduate Research Day.

4) Teaching experience through assisting with the laboratory components of courses delivered by the department - MSc students gain teaching experience by assisting, during one academic term, with the laboratory component of courses delivered by the department (10 – 20 hours per year, as assigned by the Graduate Students Coordinator).

PhD students gain teaching experience by assisting, during two academic terms, with the laboratory component of courses delivered by the department (10 – 20 hours per year, assigned by the Graduate Studies Coordinator). Students are also required to deliver 2-4 hours of lecture to non-medical undergraduate students prior to completion of their degree program. Students are encouraged to take advantage of resources offered by the Centre for Learning and Teaching (CLT) to enhance the development of their teaching skills:

Teaching Assistant Enrichment Program
<https://www.dal.ca/dept/clt/services/TAEP.html>

Certificate in University Teaching and Learning
<https://www.dal.ca/dept/clt/services/CUTL.html>

Feedback on the quality of student teaching will be solicited from the Course Coordinators and provided to students. Students are expected to document completion of the course components as part of their Faculty of Graduate Studies Annual Progress Report. The students' Supervisory Committee will determine annually that the course requirements have been met.

Failure to complete any requirement over a 12-month period will generate a warning to the student. Failure to complete two or more required components over a 12-month period, or one component over a period of 24 months, will result in a grade of Fail and could lead to dismissal from the program.

FAILURE IN A CLASS

It is a Faculty of Graduate Studies regulation that a student who fails **any** class is academically dismissed from their program of study. A dismissed student may apply in writing to the Department for reinstatement, at which time a meeting of its faculty will consider all aspects of an individual case and may, at its discretion, recommend to the Dean of the Faculty that the student be readmitted.

FGS Annual Progress Reports

All graduate students in the second year and beyond of a thesis program must submit an Annual Progress Report to the Faculty of Graduate Studies. This report is completed through the Graduate Student Information System (GSIS) in Dal Online and requires approval from both the supervisor and the Graduate Coordinator.

Annual Progress Reports are due on an annual basis one month prior to the anniversary of the student's admission date (e.g. due August 1 for September admissions, December 1 for January admissions, and April 1 for May admissions).

Students who hold specific scholarships must complete an Annual Progress Report one month in advance of the anniversary date of the start of their award. Failure to do so may result in the award being terminated or a delay in the renewal of the award. Please consult the Letter of Offer for instructions.

Research Supervisors

Graduate students must have an appointed Supervisor (or two Co-supervisors) before being considered for admission to the Department of Medical Neuroscience. Financial constraints and lab space may limit the choice for supervisors as part of the graduate student stipend is paid in part from the supervisor's research grant. As soon as possible after the start of the program, the student, in consultation with the Supervisor will nominate a supervisory committee.

Supervisors or Co-supervisors must be members of the Faculty of Graduate Studies

Supervisory Committees

The course of study of every graduate student is approved by the student's supervisory committee and determines when a student has satisfactorily fulfilled all requirements of their degree program. A supervisory committee should complement the expertise available to the student in completing their research program. Students are required to have at least one Supervisory Committee meeting per year.

Membership for both MSc and PhD supervisory committees is comprised of the student's research Supervisor and two other faculty members, at least one of whom is from the Department of Medical Neuroscience. Students with two Co-supervisors will have a four member committee.

Duties of the Supervisory Committee

- To meet with the student and to discuss a program of study in light of the student's background
- To meet one a year with the student to review and discuss progress
- To be available for consultation as requested by the student
- To form the nucleus of the examining committee

Supervisory Committee Meetings/Reports

The student, in consultation with the supervisor will arrange to a Supervisory Committee once per year which will be chaired by a member other than the supervisor. The chair will complete the Graduate Student Advisory Committee Report form. Scanned copies will go to the committee members and the student. A copy will go in the student's file.

Guidelines for the Supervision of Graduate Students

Responsibilities of Supervisors

- to provide reasonable access to their student(s) and to be available for consultation at relatively short notice;
- to be as helpful as possible in suggesting research topics and in assisting students to define their theses;
- to tell students approximately how long it will be before written work, such as drafts of chapters, can be returned with comments;
- to be thorough in their examination of thesis chapters, supplying, where appropriate, detailed comments on such matters as literary form, structure, use of evidence, relation of the thesis to published work on the subject, footnoting, and bibliographical techniques, and making constructive suggestions for rewriting and improving the draft;

- to indicate clearly when a draft is in a satisfactory final form or, if it is clear to the supervisor that the thesis cannot be successfully completed, to advise the student accordingly;
- to know the academic unit and University regulations and standards to which the writer of a thesis is required to conform, and to make sure that the student is aware of them;
- to continue supervision when on leave, possibly with arrangements also being made for members of the supervisory committee to assist the student for the leave period;
- to advise and help the student to approach other faculty members for assistance with specific problems or even to request the reading of a chapter or section of the thesis;
- to see that all ethics and animal care approvals, as appropriate, are secured.

Responsibilities of Students

- to choose a topic (with the supervisor's aid and advice) and to produce a thesis that is essentially their own work;
- to produce a thesis that meets the standards of scholarship required by the University and the academic unit, including demonstration of their capacity for independent scholarship and research in their field;
- to acknowledge direct assistance or borrowed material from other scholars or researchers;
- to realize that the supervisor has undergraduate or other duties which may at times delay the student's access to the supervisor;
- to give serious and considered attention to advice and direction from the supervisor;
- to submit their work to the judgment of the academic unit and to abide by its decision when any rights of appeal, if exercised, have been exhausted;
- to know the academic unit and University regulations and standards to which the writer of a thesis is required to conform;
- to comply with all ethics and animal care requirements.

Rights of Supervisors

- to expect students to give serious and considered attention to their advice concerning what they regard as essential changes in the research and thesis;
- to terminate supervision and advise the student to find another supervisor where evidence shows the student does not heed advice and ignores recommendations for changes in the research and thesis, or if the student is not putting forth a reasonable effort;
- to have their thesis supervision properly credited by the academic unit as an intrinsic part of their workload so that, in the assignment of duties, they are not overburdened to the point of having their effectiveness impaired as supervisors;
- to have the student acknowledge, by footnoting, all portions of the supervisor's own research over which the supervisor wants to retain future rights of authorship;
- to retain the right to use the results of research carried out under their supervision for the benefit of a larger project — this is always with the understanding that students will

retain scholarly credit for their own work and be given acknowledgment of their contribution to the larger project.

Rights of Students

- to have a clear understanding of what is expected in thesis writing (expected length, acceptable methodology, validity of topic, notification of progress);
- to expect help from their supervisor in establishing a feasible topic, in solving problems and assessing progress as the thesis is being written;
- to receive a fair assessment of the completed thesis and explanations of negative criticism;
- to be allowed to have a new supervisor when they can offer convincing reasons to the academic unit for the change and the change can be reasonably accommodated by the academic unit;
- to be protected from exploitation by their supervisor or other faculty members if the latter should:
 - a) intrude upon the student's right of authorship or fail to give a student authorship credit for team research (where applicable, the academic unit's protocols on authorship should be provided to students before they embark on research), or
 - b) divert the student's efforts from the timely completion of the thesis;
- to submit a thesis even if the supervisor is not satisfied, although such action should be taken only in extreme cases and after full consultation with the academic unit.

MSc to PhD Transfer

Students in the MSc program can, with the recommendation of their supervisory committee, transfer to the PhD program. Transferring from a Masters to a Doctoral program should be done within the first five terms of initial registration and must be requested before the term in which the transfer is to take place. MSc students wishing to transfer to the PhD program must successfully pass the written examination (details below).

Comprehensive Exams

All PhD students must pass a PhD Preliminary Exam which consists of two components, written and oral.

Written Examination

The purpose of the written examination is to ensure that the student has the basic knowledge in neuroscience. The level of knowledge should be at the level of advanced textbooks (e.g. "Kandel & Schwartz").

The written exam should be completed by the end of the 4th term in the PhD program (e.g. if the student started in September, the written examination should be completed by the end of December in the following year).

The student's advisory committee administers the written exam. The committee will select a set of questions from a Question Bank which is linked with MNSC 6101. The short answer and broader essay-type questions will be contributed by the 12 leaders for MNSC 6101 and will be at the level of advanced textbooks. The student's advisory committee will select a set of questions for the student to answer. The leader who proposed the adopted question is required to evaluate the answer.

Students will be given a set of questions by the advisory committee and will have three hours to complete the exam. Hand-written diagrams or drawings may be included in the answers.

Students must obtain a Pass on the set of questions. For any Fail, students have one month for further study before taking another written exam. Up to three attempts at the written exam are allowed within 6 months from the first attempt. The written examination must successfully be completed before proceeding to the oral examination.

Oral Examination

The purpose of the oral examination is to ensure that the student has an advanced level of knowledge in and beyond his or her specialized research area, as well as the ability to use and manipulate this knowledge. The student should be able to demonstrate the ability to answer questions on topics that are not entirely related to his or her specialized area and on the spot.

The content of the exam is determined in consultation with the advisory committee no less than three months in advance of the date of the exam. The examination committee will consist of: 1) a chairperson who is a member of the departmental Graduate Studies Committee and is responsible for the conduct of the examination, 2) the members of the candidate's advisory committee, and 3) one other faculty member, external to the advisory committee. The examination committee must consist of no less than three members (exclusive of the chairperson).

The oral examination should be completed in the student's second year and no less than 12 months from the expected thesis defence.

MSc & PhD Theses

Both Master's and Doctoral students must follow the Faculty of Graduate Studies guidelines when preparing thesis manuscripts. Failure to follow FGS regulations may cause delays in completion of the degree program and may result in the cancellation of a scheduled defence or examination.

<https://www.dal.ca/faculty/gradstudies/currentstudents/thesesanddefences/format.html>

Master's Thesis Defence/Examination

The Master's Defence/Examination is arranged by the department, however, the Faculty of Graduate Studies requires the following minimum arrangements for the examination of Master's theses. The Department of Medical Neuroscience requires an oral defence before an Examining Committee.

Master's Thesis Examining Committee

A student's Master's thesis will be examined by an Examining Committee which is made up of:

	Single Supervisor	Co-supervised
Chair (independent)	1 (Grad. Coordinator or designate with Regular FGS Membership)	1 (Grad. Coordinator or designate with Regular FGS Membership)
Minimum Examiners	1 Supervisor with Regular FGS Membership 1 Reader with Regular FGS Membership 1 Reader with FGS Membership	1 Co-supervisor with Regular FGS Membership 1 Co-supervisor with FGS Membership 1 Reader with FGS Membership 1 Reader with FGS Membership
Minimum Total	4	5

Doctoral Theses

Doctoral theses must display original scholarly work and be of such value as to merit publication.

Doctoral defences are arranged by the Faculty of Graduate Studies and must be examined in a public oral defence.

A student's PhD Examination Committee Minimum Composition is:

	Single Supervisor	Co-supervised
Chair (Independent)	1 (appointed by FGS)	1 (appointed by FGS)
External Examiner	1 (External to Dalhousie, recommended by the supervisory committee, approved by FGS)	1 (External to Dalhousie, recommended by the supervisory committee, approved by FGS)
Minimum Examiners	1 Supervisor with Regular FGS Membership 1 Reader with Regular FGS Membership 1 Reader with FGS Membership	1 Co-supervisor with Regular FGS Membership 1 Co-supervisor with FGS Membership 1 Reader with FGS Membership 1 Reader with FGS Membership
Departmental Representative	1 (Regular Membership)	1 (Regular Membership)
Minimum Total	6	7

Preparing for a Doctoral Defence

There is a timeline for doctoral candidates when preparing for a doctoral defence.

Thesis Formatting

The format for both MSc and PhD theses must follow the thesis format guidelines by FGS.

Submitting a thesis after defence

Students submit their final thesis to the Dalhousie Institutional Repository ([DalSpace](#)). Please note that all theses must be submitted to FGS for format review prior to final submission.

Guidelines for converting a thesis to PDF/A format and submitting to DalSpace can be found on the FGS website.

Thesis Submission Deadlines

There are specific thesis submission deadlines for those expecting to graduate in May or October of each year.

Required Paper Forms

There are specific paper forms that are required by FGS before the online submission of a thesis can be completed.

Thesis Binding

The Department of Medical Neuroscience will arrange and cover the costs for 3 copies (1 each for the supervisor, student, and department) of a student's thesis to be bound. Extra copies can be bound at the student's expense. Students are to provide the copies to be sent for binding.

Registration

All graduate students at Dalhousie are required to register for each and every term (Fall, Winter, Summer). All Medical Neuroscience graduate students must register for **REGN 9999, Thesis (MNSC 9000 or MNSC 9530), and Seminars (MNSC 5200 or MNSC 5230)** in each and every term of study. Students must also register for any required courses or electives needed to meet degree requirements.

Failure to register by the deadline in each term can affect processing of student stipend payments in the first month of each term.

FUNDING

Stipend

Most graduate students in the Department will be supported to some extent by a stipend that FGS will refer to as a Dalhousie Graduate Scholarship. The funds for this stipend come from a variety of sources; supervisor grants, FGS and the Department. The stipend amount may change from year to year, to reflect any increases in tuition and fees (see Appendix A at the end of this document). Masters students pay full time fees for one year after which they will move to Continuing or Thesis only fees. PhD students pay full time fees for two years and then move on to Continuing or Thesis only fees. The stipend covers tuition and fees, and allows students to have a 'take-home' monthly pay.

Please note that the Department does not pay extra for teaching. The expected contribution to teaching in the Department is regarded as part of the educational experience of graduate study. This also allows the Department to maintain consistent stipend support even in years when students are not expected to teach.

Scholarships

Several government-funded scholarships are available for graduate students. The Department, using supervisor, FGS and Department funds, will top-up scholarship amounts to reach the standard stipend levels. In the case of major government scholarships, that fund most of the stipend, the supervisor will acknowledge the success of the student in obtaining such an award by providing an additional \$1000 for Masters students and \$2000 for PhD students.

Tri-Council CGS-M Scholarship applications are reviewed and awarded through Dalhousie University with awards issued each year to applicants who, as of December 31 of the year of the competition, have not completed more than 12 months of full-time academic study in their **master's** program. There is only one application for the Tri-Council CGS-M competition. The awards in this competition are: CIHR and NSERC. Applicants must be Canadian citizens or permanent residents of Canada.

Tri-Council CGS-D Scholarship doctoral funding occurs in several separate competitions over the fall of each year. The awards include NSERC PGS-D/CGS-D and CIHR CGS-D.

There is also the Harmonized Scholarship Process that allows for current and prospective students to be considered for FGS-managed scholarships using a single application. These awards include the Nova Scotia Graduate Scholarship, Killam Predoctoral Scholarships, Eliza Ritchie Doctoral Entrance Scholarship for Women, James Robinson Johnston Graduate Scholarship for African Canadians, Nova Scotia Black and First Nations Graduate Entrance Scholarships, the Vitamin Scholarship, and the Abdul Majid Bader Graduate Scholarship.
<https://www.dal.ca/faculty/gradstudies/funding/approces/harmonizedapp.html>

Travel Grants

Conference travel can be awarded to full-time graduate students in a Master's or Doctoral thesis program only. A student is eligible for one FGS travel grant per degree and must be registered in the term when applying and the term that the conference is taking place. The maximum amount awarded is \$500, however, this amount is subject to change.

Dalhousie Association of Graduate Students (DAGS) Grants

All graduate students in the Department of Medical Neuroscience are members of DAGS as long as they are registered and paying fees. DAGS members are eligible for travel and professional development grants valued up to \$100.

Professional Development Grants are intended to help graduate students cover the cost of attending professional development workshops or programs

DAGS Travel Grants are intended to help graduate students cover the costs of attending conferences related to their program of study.

<http://www.dags.ca/grants-for-graduate-students.html>

Department Awards

MNGSS Graduate Research Day

Several awards are given out that the Faculty of Medicine Graduate Research Day which is typically held in May.

Ian Mobbs Graduate Teaching Assistant Award

Established by the Graduate Student Society and funded by an anonymous donor, for outstanding service as a teaching assistant (TA). To be nominated for this award, the faculty member(s) for which a student is TA needs to complete an evaluation. The award is announced at the Departmental Blitz in the Fall.

MNGSS Leadership award

Funded by MNGSS (Medical Neuroscience Graduate Student Society) and awarded annually to a graduate student who has demonstrated meritorious extra-curricular service while a graduate student in the Department and, in particular, providing benefit to their fellow graduate students. Students apply by submitting a summary (CV, letter or narrative statement) to the Graduate Student Secretary. The award is announced at the Departmental Blitz in the Fall.

McNee Award

This award is funded by a generous gift from the McNee family in recognition of Dr. McNee, a graduate of Dalhousie University's Medical School. This annual award recognizes the achievements of a graduate student, who has been in the Department for at least one year, with a particular emphasis on research accomplishments. Student must apply for this award. Application details are typically announced in late summer and the awardee is announced at the Department Blitz in the Fall.

Medical Neuroscience Graduate Student Society

All graduate students enrolled in the Department of Medical Neuroscience at Dalhousie University will be deemed members of MSGSS.

Mandate:

1. To represent students in the Department of Medical Neuroscience at Dalhousie University at both the faculty and student union levels;

2. To provide a source of information for new incoming graduate students within the Department of Medical Neuroscience;
3. To maintain graduate student awareness of relevant events and opportunities within the Department of Medical Neuroscience, via associated societies, throughout the university campus, and at the national level;
4. To organize social events for current and visiting potential graduate students within the Department of Medical Neuroscience.

MNGSS Meetings

Generally, meetings are held four times a year:

Summer Meeting – July
Fall Meeting – September
Winter Meeting – January
Spring Meeting – April

APPENDIX A

STIPENDS and TUITION/FEEES

Minimum stipends (listed below) take into consideration the tuition & fees that are applicable at each stage of degree and whether the program is M.Sc. or Ph.D. Full tuition & fees are applicable only to first year MSc students. International fees are collected from international students at the MSc level. **The stipends will be adjusted each year according to the tuition/fees.**

Dept. of Medical Neuroscience approximal minimum stipends

Degree level (international/Canadian)	Tuition & fees/year	International fees (yes/no)	Minimum Stipend*	Take Home Pay
MSc full fees (international)	~ \$ 20,660	YES	\$37,660	\$17,000
MSc full fees (Canadian)	~ \$12,512	NO	\$29,512	\$17,000
MSc continuing fees (international)	~ \$13,061	YES	\$30,061	\$17,000
MSc continuing fees (Canadian)	~ \$4,913	NO	\$21,913	\$17,000
Doctoral (international)	~ \$9,604	NO	\$27,604	\$18,000
Doctoral (Canadian)	~ \$8,848	NO	\$26,848	\$18,000

- **Stipend = Tuition+fees+take-home pay**

Students that transfer to PhD from MSc may receive a portion of their tuition refunded (determined by FGS at time of transfer).

The estimated tuition & fees include incidental fees.

All full-time students are provided with Health and Dental Plans. International students are also provided with a basic health insurance plan. However, these plans do cost money and students with proof of sufficient coverage from another source may opt out.

Nova Scotian students may be eligible for the Nova Scotia Student Bursary