

University of Colorado at Denver, Anschutz Medical Campus Aurora, CO 80045

**Neuroscience Training Program
Handbook of Policies and Information
Revised July 2012**

This book is a supplement to the Graduate Student Handbook prepared by the Graduate School. Students are responsible for familiarizing themselves with the content of both.

NEUROSCIENCE TRAINING PROGRAM POLICIES AND INFORMATION

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NEUROSCIENCE TRAINING PROGRAM POLICIES AND INFORMATION

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1.0 Admission to the Program. Students seeking admission into our program should have an undergraduate degree or its equivalent and have taken the Graduate Record Examination (GRE). Foreign students must also take the Test of English as a Foreign Language (TOEFL). A baccalaureate degree in either a biological science, chemistry, physics or engineering is recommended. Applicants are strongly encouraged to take an undergraduate level biochemistry course. Students will be more favorably viewed for admission if they have Graduate Record Examination percentiles of 65 or higher. There is no absolute requirement for grade point average above that required by the graduate school, but successful applicants generally have GPAs above 3.2 (A=4.0). Undergraduate research experience is strongly recommended. Students with deficiencies may be admitted on probation, but these must be rectified during the first year. It is the continuing policy and commitment of the Graduate School of the University of Colorado to provide equal opportunity for qualified students without discrimination with regard to race, color, sex, religion, age, national origin or disability and to welcome such students to make application for admission to its graduate programs.

2.0 Student Support. Students accepted in the Ph.D. program are provided full tuition, health insurance, and a stipend of \$26,000 per year for living expenses (for the 2012-2013 academic year). Continued support is contingent upon satisfactory academic and research performance by the student. When a student enters a thesis lab, the thesis mentor assumes complete responsibility for the student's stipend, tuition, fees, and associated research costs. Out of state tuition is paid only in the first year. **All students must establish Colorado residency during and by the end of their first year in the program.**

3.0 Graduate Training Committee (GTC). Every first year student is assigned a member of the GTC as a mentor. Students are required to meet with their GTC mentors every month to update them on their progress. GTC members provide feedback to first year students on choices of rotation and thesis labs. The students also need to rehearse their rotation talks with their GTC advisors.

In subsequent years, the GTC Chair will regularly meet with student groups from various thesis years. The committee regularly monitors student progress and helps them resolve any problems that arise. The GTC Chair also acts as a liaison between the students, advisors and thesis committees in order to address, proactively, any scientific or interpersonal issues that might arise during the student's tenure.

4.0 Training Program. The program's goal is to provide a broad and solid foundation of understanding in neuroscience, and to train critical thinkers, who identify important problems, generate experimentally testable hypotheses, and who draw significant conclusions from results of their ongoing research in a specific area of neuroscience. In addition, we aim to foster development of students who approach research in a responsible, ethical, and professional manner. After the initial period of coursework, students choose their specialty fields from a diverse list of topics. They proceed with research in their specialty areas until the generation and defense of a thesis leads to the award of a Ph.D. in Neuroscience.

There are three tracks for entrance into the Neuroscience Program: some students enter directly into the NSP (neuroscience track), while others transfer from BSP (BSP track) or MSTP (MSTP track). The year by year curriculum for students who enter the Neuroscience Program directly is discussed in the following sections. Subsequently, the differences in training for those students who join the NSP through the BSP and MSTP tracks are discussed in section 4.4.

4.1 YEAR 1: Coursework, Laboratory Rotations and Preliminary Exam.

4.1.1 Required Coursework for Year 1.

FALL SEMESTER – YR 1

NRSC – 7600 Cellular and Molecular Neurobiology, 3 units

Course Director: Dr. William Sather

Covers how nerve cells go about their business of transmitting signals. Required textbook: From Neuron to Brain, 4th Edition. A Cellular and Molecular Approach to the Function of the Nervous System. Nicholls, JG, Martin, AR, Wallace, BG. Sinauer Associates, Inc., Publishers.

IDPT 7811, 7812, 7813, 7814, 7815 Biomedical Sciences Core, 10 units

Course Directors: Variable.

NRSC –7650 Research in Neuroscience (Lab. Rotations I and II), 1 unit each

Coordinated by the Graduate Training Committee, Dr. Sukumar Vijayaraghavan, Chair.

Students will perform research in the laboratory of one of the members of the program. The rotation will be followed by an oral presentation. Each rotation will occupy approximately 12 weeks. Rotation II will begin near the end of the fall semester (in November) and end early in the spring semester (in February).

SPRING SEMESTER – YR 1

NRSC 7610 Fundamentals of Neuroscience, 5 units

Course Directors: Drs. Thomas Finger, Achim Klug and Diego Restrepo

Lecture, laboratories and manuscript discussions to provide basic knowledge of the structure and function of the nervous system.

NRSC – 7615 Developmental Neurobiology, 3 units

Course Director: Dr. Kristin Artinger

Course will cover topics in the development of the nervous system, such as neuronal birth, migration, differentiation, and death, axonal path finding, cell-cell recognition, and synapse formation, modulation and elimination. Part of the course is devoted to the discussion of original literature in the field.

NRSC – 7661 Grant Writing Workshop, 1 unit

Course Director: Dr. Dan Tollin

A practicum in how to read and write a grant proposal with emphasis on the NRSA pre- and post-doctoral fellowship applications.

NRSC – 7660 Neuroscience Seminar 1 unit

Seminar Committee Chair: Dr. Steve Britt.

Seminar series designed to present recent important findings in Neuroscience research. Different topics are presented weekly by Neuroscience Training Program faculty, students and visiting faculty. **First year students are required to attend all the seminars** and all other students are strongly encouraged to attend on a regular basis. The GTC monitors the attendance of first year students. Final grade is based upon attendance and participation at these seminars.

NRSC – 7650 Research in Neuroscience (Lab. Rotation III) 1 unit

Coordinated by the Graduate Training Committee, Dr. Sukumar Vijayaraghavan, Chair.

Students will perform research in the laboratory of one of the members of the program. The rotation will be followed by an oral presentation.

4.1.2 Laboratory Rotations in the First Year. Rotations serve several important purposes. First, they enable the student to explore and compare several areas of neuroscience research and aid in the choice of a mentor and project for thesis work. Second, rotation seminars provide intense training in the craft and art of public presentation, an essential aspect of future career success. Third, they allow program faculty to evaluate the motivation and intellectual preparedness of students to undertake independent research.

4.1.2.1 Number of Rotations. *Students must perform 3 rotations, each ~12 weeks in duration, before the start of their second year.* Students should start their first rotation in the Fall Semester of year one. Optionally, students may start a rotation during the summer before formal entry into the Program. MSTP students take two rotations (during the summers after the first and second year of Medical School).

4.1.2.2 Choice of Mentor/Laboratory. First and foremost, students should choose laboratories and projects that are reasonable possibilities for a student's thesis work. *Students should avoid rotations whose main goal is the acquisition of new techniques;* there will be plenty of opportunity to learn methods informally among the Program laboratories as the need arises. Students are strongly advised to choose rotations that maximize their exposure to different areas in Neuroscience. **They should talk to their GTC mentors or the GTC Chair prior to making rotation decisions.**

Students should be aware that mentors and their groups put considerable effort into supervision of rotating students. Thus, some faculty may be reluctant to take on a rotation student if they have extensive travel plans, teaching, grant writing, or if their funding is in jeopardy. In addition, the Program allows only a single neuroscience rotation student in a lab at any time. ***For these reasons, it is imperative that students arrange for rotations as far in advance as possible.***

4.1.2.3 Limitations on the number of rotation students/lab. In order to ensure adequate supervision, a faculty member is allowed to take only one Neuroscience Program Student/ Rotation cycle.

4.1.2.4 Rotation initiation form. Students must fill out a rotation initiation form and have it signed by the GTC Chair before the beginning of the rotation period.

4.1.2.5 Duration of Rotation. All rotations will span a period of 12 weeks. The dates for the post-rotational talks will be decided by the Graduate Training Committee and are posted on the Neuroscience web site (<http://www.ucdenver.edu/neuroscience> under "seminars"). Ability to organize and perform experimental work given normal schedule constraints is an important part of the evaluation process for these rotations. Further, it is our experience that seminar performance difficulties arise when a student delays a presentation too long after the actual rotation. The GTC, in conjunction with the Seminar Committee, will assign each student a fixed date and time for each presentation. This will normally be Wednesday at noon or Thursday at the regular seminar time. No extensions to the duration of laboratory work or changes to the previously assigned seminar date will be given, except in exceptional circumstances (e.g. severe illness). In this regard, it may help to view the rotation as a normal course with a final exam (i.e. the rotation seminar).

4.1.2.6 Performance Expectations and Grading Policies for Rotations. Given the unpredictable nature of scientific progress, it is not expected or required that students complete all goals proposed at the start of their rotations. However, rotation projects should be thoughtfully designed in consultation with the mentor so that a reasonable prospect for scientific progress exists. In any case, students are expected to spend significant effort toward achieving their goals, or if progress is difficult, to be able to explain the nature of the problems involved.

4.1.2.7 Effort. While first year students have a substantial course load, the program expects that sufficient time will be devoted to the rotation project. For professionals in training, it is not appropriate to require a minimum number of hours for rotation work. Strong self-motivation is an essential characteristic for an independent scientist, and we expect our students to demonstrate this quality throughout their training. In this regard, students should expect to be in the lab beyond the normal working hours, i.e., at evening, on weekends, and possibly over vacation days during the term. This commitment of time is especially important when long, complex experiments are being done. A major part of the mentor's rotational assessment (as well as his/her willingness to accept a student) will be based on the degree and quality of lab effort. Students should always discuss time off and/or vacation days with their lab mentor in advance, both in their lab rotations and once they enter a thesis lab.

4.1.2.8 Rotation Seminar. At the end of the rotation the student will present a seminar. The purpose of the seminar is to provide intense training in the craft and art of public presentation, an essential aspect of future career success. Rotation seminars are 15 min in length. **The student will rehearse the seminar with their labs and with their GTC mentors prior to the public presentation.**

4.1.2.9 Post-Rotation Talk Guidelines.

The post-rotation talk is an essential component of the research rotation. Students are expected to present a well organized, clear, and thoughtful presentation. Students should remember that they are addressing a general Neuroscience audience and avoid the use of specialty-specific terminologies and jargon. Students should consider the following elements when designing their talk:

Introduction- a short statement of the question or problem addressed by the rotation.

Background -describe the significance of the question in broad terms for a diverse audience. Describe previous work and its relationship to the project.

Specific experimental aims- what were the particular experimental goals proposed to address the hypothesis?

Methods and Design- explain any unusual strategies or techniques employed.

Results and Conclusions- the results should be presented in a straightforward and logical manner. Wherever possible, graphs and cartoons should replace excessive verbiage on slides.

Conclusions should be summarized briefly.

Future directions- at the end of the talk, the student should provide a brief summary of results and how, in the students' opinion they should be followed upon.

4.1.2.10 Suggestions for Effective Talks

1 Avoid reading or memorizing your presentation if at all possible. Wooden, canned deliveries are dull and very hard for audiences to follow.

2 Prepare and use simple, effective visual aids. Remember that effective communication of data and ideas is your goal! Do not spend undue effort on fancy multicolored slides (especially for text) if color is not required to simplify complex data or concepts. Keep text very brief and do not read directly from the screen (audiences are much faster at reading silently!).

3 Use the marker board when appropriate. Diagramming or outlining while you are talking is a highly effective means of explaining concepts difficult to describe with the spoken word. Use of the marker board can also help answer spontaneous questions from the audience.

4 Consider audience questions carefully. Both faculty and students are encouraged to ask questions during and after rotation seminars. A few of these questions may be intended to probe your understanding of your research rather than illuminate an area of confusion. Part of your evaluation will concern your effectiveness in responding to questions. Thus, make sure that you understand the question before answering. Repeat the question or ask for a rephrasing if you need to. Second, relax and take a moment of silence if you must before answering to formulate a coherent answer. Third, if after contemplation you don't know the answer, don't be afraid to say so. We all get stumped from time to time!

4.1.2.11 Grading of the Rotation. Immediately after the seminar session the GTC will meet and evaluate the rotation talk. Final grades will be assigned, based on both the GTC's evaluation and that of the rotation mentor. **The students will subsequently meet their rotation and GTC advisors to obtain feedback on the strengths and weaknesses in laboratory and seminar performance, and may be given suggestions for improvement.** Students will be expected to show improvement to identified weaknesses in subsequent rotations and seminars. Failing a rotation (B minus or below) will be considered a serious academic deficiency that may require further action by the GTC (see Academic Standards).

4.1.3 Transfer to Thesis Lab at End of First Year: An important aim of the rotations is to enable the student to find a thesis mentor. After the completion of the three rotations for regular graduate students or two rotations for MSTPs, the student should come to a mutual agreement with a

faculty member to act as thesis mentor. **Feedback from the GTC mentor or Chair is essential to this process.** The chair of the GTC and the Program Administrator should be notified on the choice of mentor on or before June 15th of the first year. Official transfer to the thesis lab takes place on July 1st. Under exceptional circumstances and at the discretion of the GTC Chair, a student may be allowed to perform an additional rotation for the express purpose of enhancing the mentor selection process. The Graduate Training Committee must formally approve the choice of thesis. The student and faculty member together plan a thesis project. Doctoral level work requires a close collaboration with a faculty mentor. It is the responsibility of the student to establish and maintain that relationship. Continuation in the PhD program depends upon identifying a mutually agreeable thesis laboratory.

4.1.4 Preliminary Exam at the End of the First Year: The preliminary exam will be an oral one. An examining committee will be drawn from the course lecturers of NRSC 7600, 7610 and 7615 (see section on first year courses). Each of these courses will have one representative on a student's exam committee. The exam will last about 45 - 60 min. While the basis of the questions will be integration of material across the courses, the examiners will expand the scope based on perceived strengths and weaknesses of the student. If a student demonstrates appropriate knowledge and integration of the material, no other action is required. However, if deficiencies are noted during the exam, the student will develop a plan to address these weaknesses in consultation with the GTC Chair. In some cases, re-examination might be required. In all cases, problems noted during the exam should be addressed by the end of the fall semester of the second year.

4.2 YEAR 2: Coursework, Pre-Thesis Research and the Comprehensive Examination.

Courses with an asterisk are optional are not required every semester.

One Elective or Advanced Topics Course per year is recommended in year two through the completion of the Ph.D. (These are in addition to the required thesis hours)

SUMMER – YR 2

NRSC –7650 Research in Neuroscience (Pre-comps) 1 unit

Course Director: Dr. Angie Ribera

FALL – YR 2

PHCL – 7605 Ethics in Research 1 unit

Course Director: Dr. Paula Hoffmann.

Course is designed to introduce issues around ethics of research, publication, and reviewing of manuscripts and grants.

NRSC –7650 Research in Neuroscience (Pre-comps) 3-6 units

Course Director: Dr. Angie Ribera

Laboratory research with Neuroscience Training Program faculty.

NRSC – 7670 Advanced Topics in Neuroscience* 1 unit

Course Director: Dr. Angie Ribera

Course will focus on specific topics each semester.

NRSC 7675 Neuroscience, Ethics and Philosophy* 1 unit

Elective for students 2nd year and beyond.

Course Directors: Sukumar Vijayaraghavan and Dr. Gidon Felsen.

The course involves discussions on issues at the nexus of Neuroscience, philosophy and society.

SPRING – YR 2

NRSC –7650 Research in Neuroscience (Pre-comps) 3-6 units

Course Director: Dr. Angie Ribera

NRSC – 7670 Advanced Topics in Neuroscience* 1 unit

Course Director: Dr. Angie Ribera

Course will focus on specific topics each semester.

4.2.2 Thesis Proposal Form. Before the end of the fall semester in the second year the student should submit to the GTC Chair a Student Thesis Proposal form signed by both the student and the thesis advisor, and attach a brief one-page overview of the proposed thesis research. This overview should include a paragraph of background and significance, a clearly stated hypothesis to be tested and at least two specific aims, each supported by one or two sentences describing the experimental approach.

4.2.3 Comprehensive Exam. At the beginning of the second year of study Neuroscience graduate students will begin preparing for the Comprehensive Exam. It is highly recommended that the student carefully read the Graduate Student Handbook on Comprehensive Examination policies and deadlines, and pick up a packet of instructions and forms from the Graduate School well ahead of the planned examination so all required paperwork can be completed on time. Complete paperwork must be submitted to the Graduate School no later than two weeks prior to the examination date. Please make copies for the Neuroscience Program to be placed in your official file. Official forms can be found on the Graduate School <http://www.ucdenver.edu/academics/colleges/graduate-school/Pages/default.aspx>. A link is also provided on the Neuroscience website.

Note: A student must be registered at the time he/she takes the Comprehensive Examination.

Students should take the Graduate School Comprehensive Examination for admission to candidacy for the Neuroscience Ph.D. by the end of the summer of their second year. The Comprehensive Examination Committee shall consist of a minimum of five Graduate Faculty members. At least one of the members must be outside the Program's core training faculty. The majority of the members, including the chair, must be from the core training faculty of the Neuroscience Program. ***The student's dissertation advisor may not chair the examination committee.*** The student should provide the GTC with the names of seven potential committee members and discuss with the GTC Chair the committee's composition. ***The GTC and the Graduate School must approve the Thesis Committee composition prior to scheduling the examination.***

The examination will have as its focus a thesis research proposal written by the student using the format of a NIH grant application. Although preliminary data collected by the student is helpful, it is not essential for the proposal. The written proposal should be distributed to the Comprehensive Examination Committee at least two weeks prior to the examination. The student must adequately demonstrate the scientific knowledge and ability to defend this proposal, as well as satisfying the overall requirements for the examination as set forth in the AMC Graduate Student Handbook. The examination will consist of a 30-45 minute seminar by the student to the program, general questions from the audience, and then a closed exam with the Comprehensive Examination Committee. As stated in the graduate student handbook, the comprehensive examination "will test your mastery of a broad field of knowledge, not merely the formal course work completed." The student should consult with his or her committee members prior to the exam as to the subject areas each member expects the student to have mastered. ***Once a student has passed the Comprehensive Exam, he/she should register for Neuroscience Doctoral Research (NRSC 8990) instead of NRSC 7650.***

4.3 Third Year and Beyond

4.3.1 Coursework

NRSC 8990: Neuroscience Doctoral Research – Summer, Fall, and Spring

Course Director: Dr. Angie Ribera.

Students will generate an original body of research that constitutes a significant contribution to the field of neuroscience. Suitability of thesis research is judged by the Thesis Committee. Students write a Ph.D. thesis and defend the document at an oral examination.

NRSC – 7670 Advanced Topics in Neuroscience* 1 unit

Course Director: Dr. Angie Ribera.

Course will focus on specific topics each semester.

* One Elective or Advanced Topics Course per year is recommended in year two through the completion of the Ph.D. (These are in addition to the required thesis hours).

4.3.2 Ph.D. Thesis.

After passing the Comprehensive Proposal, the student enters Ph.D. candidacy. During the following years the students perform research towards a thesis defense. Students will give annual reports on the progress of their thesis research to the Neuroscience faculty in the form of 30-minute seminars, and meet at least bi-annually with their Thesis Committee. The Chairman of the Thesis Committee will meet with the GTC to discuss the student's progress and will submit a brief written summary of the outcome of each meeting with the student.

Upon completion of a body of original research that constitutes a significant contribution of new knowledge to the field of Neuroscience, students will write a Ph.D. thesis containing this information, and defend this document at an oral examination scheduled by the Graduate School. A student will not be allowed to defend the thesis unless s/he has submitted for publication at least one first author research manuscript.

The student will submit a detailed version of his/her thesis to the thesis committee six weeks prior to the anticipated date of defense. The committee will then have two weeks to let the student know if he/she can go ahead with the oral defense. The student may defend in the face of the thesis committee's disapproval, provided he/she knows the risks involved.

Check with the Graduate School for current deadlines, thesis format requirements and required paperwork prior to writing the thesis and scheduling the defense. (Students must be registered in NRSC 8990 to defend.)

4.4 Curriculum for BSP and MSTP Track Students

MSTP and BSP Students. MSTP and BSP students will take the Biomedical Sciences Core Course in the fall semester of the first year. They will be asked to take a total of at least five credits of Neuroscience Courses before their Comprehensive exam through any combination of the following courses:

NRSC 7600: Cellular and Molecular Neurobiology (3 credits, fall). **NRSC 7610:** Fundamental Neurobiology (5 credits, January–March). **NRSC 7615:** Developmental Neurobiology (3 credits, spring semester), 2 credits of Advanced Topics Neuroscience courses, or other Graduate School courses approved by the Neuroscience GTC. In the case of Graduate School courses, students will be able to choose from an array of courses that are offered. Potentially suitable courses in the Spring Semester include Receptors & Cell Signaling (**PHCL 7606**) and Molecular Basis of Neuropsychiatric Disorders (**NRSC 7614**). The ultimate decision on courses will be made following consultation with the GTC, which will consider factors such as the thesis lab that a student is joining and gaps in prior studies.

The 5 credit requirements can be fulfilled in several different ways. For example, the student can take **NRSC 7610** (5 credits which starts in January and goes to March). Alternately, the student can take the 3 credit course **NRSC 7600** in the fall of the first or second years (most likely during their first full year in the lab) and fulfill the other 2 credits by one-on-one tutorials (taken under the Advanced Topics heading), larger group Advanced Topics courses, or other Graduate School courses (which would be taken under the Advanced Topics heading).

Both BSP and MSTP students need to pass a program-specific Preliminary Exam, in order to be eligible to transfer into the Neuroscience program.

5. Academic Standards for Neuroscience Graduate Students.

Applicants to the Graduate Program in Neuroscience are highly screened and rigorously evaluated for their potential to become creative and independent scientists. This means that each student in the Program was admitted with the Faculty's full confidence in their ability to complete training requirements for the Ph.D. Thus, the Program does not operate to weed out students during training. Rather, we

regard any dismissal or withdrawal as a serious detriment to the success of our program, and a situation that we will do our best to avoid.

However, it infrequently happens that a student will fail to satisfy the Program standards and expectation for academic performance. Given the importance and intensely competitive nature of biomedical research, as well as our commitment to the future of our students, such instances invoke serious concern from the Program. Students should be assured that in an initial instance of failure the Program will do its best to help the student to remediate failure. However, multiple deficiencies indicate a poor prognosis for future success and demand close examination of a student's tenure in the Program.

The GTC is charged with maintaining the academic standards and with evaluating the ability of students to continue with the training in cases of failure. The Academic Standards of the Program are described below, as well as the procedures used by the GTC to deal with performance deficiencies.

5.1 General Graduate School Standards

The minimal standards of the Graduate School must be satisfied. These are:

- 1 Maintenance of a 3.0 GPA at all times. Less than a 3.0 cumulative GPA puts the student on a two semester probation. During this time, the student must raise the overall GPA to 3.0 while achieving a 3.0 GPA for each probationary term. Failure to satisfy this requirement may result in dismissal from the Program.
- 2 Passing grade on the Comprehensive Exam. A grade of "Fail" on either the Comprehensive or Dissertation Defense exams results in dismissal.

5.2 Additional Standards for Neuroscience Graduate Students

- 1 Students must achieve grades of B or better in each required course in Neuroscience. **Grades of B minus or lower are failing for Neuroscience courses.**
- 2 Students must achieve grades of B minus or better in all other core courses (currently Basic Science Core Course). Grades less than B minus are failing.
- 3 A student must not receive more than one failing grade for all required courses during the entire training program.
- 4 In order to continue in the program, a student must demonstrate adequate integration of the first year rotations and course material during the Oral Preliminary Exam and/or any required follow-up.
- 5 Remedial and Disciplinary Actions. Failure to satisfy these conditions will result in a thorough review of the student's entire performance in the Program, with a recommendation for dismissal a possible outcome.

A single failing grade of C, C+, or B minus in a course may be remediated at the discretion of the GTC, in accordance with conditions developed in consultation with the course director. Usually this will consist of independent study by the student followed by a make-up exam. A lower grade than a C or the unavailability of satisfactory means of remediation will absolutely require the student to retake the course. In the case of remediation, no change of grade will be given. However, the student must achieve a passing grade (B or better) for any make-up exam. In addition, the course cannot be retaken if the student fails the make-up exam. Failure to remediate a course successfully, or to pass a course on the second attempt, will likely be cause for a recommendation of dismissal by the GTC to the Graduate School.

Unsatisfactory progress in dissertation work is cause for serious concern for the GTC. The Thesis Committee for each student, which meets with the student and mentor every six months, will assess progress. Students are also strongly urged to meet informally with their committee members often to apprise them of progress made and discuss problems. If the Thesis Committee deems progress inadequate, the GTC will meet with the student, mentor, and Thesis Committee to ascertain whether the student is capable of continuing in the program. A recommendation of dismissal is a possible outcome of these deliberations. If the student is allowed to proceed further, an additional unsatisfactory assessment of thesis work will be cause for a mandatory recommendation for dismissal to the Graduate School without further review, subject only to appeal by the student (see below).

5.3 Further Conditions.

All students are expected to complete their academic requirements according to the schedule as outlined in the Handbook. Unexcused inability to complete any requirement on time will be seriously considered by the GTC as a reason to recommend dismissal to the Graduate School.

In rare cases, the GTC may allow a student an additional opportunity to reverse deficiencies when otherwise they would be recommended for dismissal. In exchange for such consideration, the GTC may impose any additional academic requirements that they deem appropriate. Naturally, failure to satisfy these additional requirements will very likely result in a recommendation of dismissal to the Graduate School.

Continuing financial support by the Program is contingent on satisfactory academic progress as defined above. The Program and its faculty will normally support students on Graduate School probation or undertaking to correct academic deficiencies. However, support will automatically terminate 30 days after a recommendation of dismissal to the Graduate School.

5.5 Due Process.

A student will have 7 days to appeal any decision of the GTC that affects them. Such appeals must be in writing and delivered to the Program Office. The GTC will respond to appeals within 7 days of receipt. Students will be given the opportunity to meet in person with the GTC to discuss their appeal if they so desire.

5.6 Further Appeals.

Unchallenged decisions or decisions after appeal to the GTC regarding the correction of academic deficiencies are final. Decisions regarding recommendation for dismissal to the Graduate School may be appealed to the Dean of Graduate Studies as described in the Graduate Student Handbook.

5.7 Illness or Personal Problems.

Students are encouraged to bring any problems that might affect their academic performance to the attention of any GTC member. This must be done as soon as possible, preferably before such problems result in academic difficulties.

6. Other Neuroscience Program Events and Related Activities

6.1 Neuroscience Seminar.

During fall and spring semesters, first year Neuroscience students are expected to attend all Neuroscience seminars (NRSC 7660). In subsequent years, attendance at a minimum of 50% of the seminars is required. Speakers during the academic year include Neuroscience students, Neuroscience faculty, and numerous invited guest speakers from other institutions. From time to time, students will be invited to luncheons or discussion sessions with these guests and are encouraged to take advantage of these opportunities to interact with top scientists from around the world.

6.2 Neuroscience Annual Retreat.

The Neuroscience Program holds an annual weekend retreat during the academic year to foster faculty-student interactions with lectures, poster sessions, and opportunities for informal discussions during meals and free time. The event provides an opportunity for faculty members to present brief overviews of the research being conducted in their labs, and for students to present posters showing their own research from lab rotations or thesis work. One visiting speaker from another institution is usually invited to give lectures.

The Neuroscience Program covers the cost of the retreat for all Neuroscience students. Neuroscience faculty members may partially cover the retreat cost for themselves and must cover all costs for postdoctoral associates or other members of their labs who attend. Since time with family members may diminish the time available for interactions with faculty and students, the

Neuroscience Program discourages family member attendance at this function.

6.3 Rocky Mountain Regional Neuroscience Group (RMRNG) and Front Range Neuroscience Group (FRNG).

The RMRNG and FRNG are chapters of the Society for Neuroscience dedicated to promoting communication and interaction among area neuroscientists. The RMRNG is based in Denver and the FRNG is based in Fort Collins (CSU). You automatically are a member of the other group if you are a member of one. You do not have to be a member of the Society for Neuroscience in order to join the RMRNG or FRNG. Annual Neurosymposium are held in the spring and fall, including lectures by visiting speakers and members, a poster session, and evening banquet.

6.4 Opportunities for Student Research Presentations. The Neuroscience Program encourages students to present their research findings through various poster presentations throughout the year. The following is a list of student poster presentation opportunities and the approximate time of year each event is held:

Neuroscience Annual Retreat September/October Neuroscience Meeting Practice Session October AMC; Student Recruitment Weekend in February. Students also get to present their work during the RMRNG and FRNG annual meetings

7. Neuroscience Program Promotion and Recruitment Activities

7.1 Publications and Acknowledgments. All student publications, including abstracts, journal articles, and theses, should acknowledge the Neuroscience Program along with other University acknowledgments. Students supported by the Neuroscience training grant should acknowledge the grant number in all publications. This is our best form of advertisement for our Program. Since we want our Neuroscience Library to include copies of all theses by our students, please be sure and provide one bound copy of the final version of your thesis to the Neuroscience Program at the same time you turn it in to the Graduate School. The Neuroscience Program will cover the costs of the one bound copy required for the program.

After you leave the University, we want to keep up with your progress as a scientist. Please keep the Program informed as you continue with your postdoctoral work. From time to time, we may request that you send us your complete CV. This will help us document the success of our students for future grant proposals and renewals.

7.2 Participation in Recruitment Functions. During February/March each year, prospective student applicants visit our program for interviews. It is in the Program's best interest to attract and retain the best of these prospective students. To do this we need the help of current students and Neuroscience faculty who can convince these individuals that our Program is the place to be! When asked, please be willing to spend some time with prospective students during dinners or other functions. Our Neuroscience Program can flourish with your help.

8. Information for New Students

8.1 Mailing Address

The mailing address for Neuroscience Program is:
Director Neuroscience Program, MS 8315 RC1N P18

12800 E. 19th Ave., 7107

P.O. Box 6511 Aurora, CO 80045

Phone: (303) 7243120 FAX: (303) 7243121

www.ucdenver.edu/neuroscience

8.2 Housing. The Student Assistance Office (Office Annex 1C36, x. 57620) can provide

apartment directories, rents, a computer search for available units, and roommate matching. They also have other resources available on campus life and student organizations. A link to their web site is on our Neuroscience web site under the Resources tab.

8.3 Colorado Residency. If you are a U.S. citizen and not already a Colorado resident, you will need to change your residence status **prior** to fall semester of your second year. The Neuroscience Program will only pay out-of-state tuition during the first year. Please stop by the Admissions and Records Office **during the first few weeks of school in your first year** to ask for instructions on changing your residency or you can check <http://www.ucdenver.edu/student/> webpage for instructions. Normally you must be able to establish physical presence in the state for a **full** year before being granted in-state status. **See the information provided by Admissions and Records for details.**

8.4 Payroll Paperwork. Before you can receive your stipend, you must fill out the appropriate paperwork with the Neuroscience Program and the payroll liaison. Note: An original social security card is required before you can be entered in the University payroll system. If you do not have an original card, you must apply for one immediately after you arrive. Be sure to get a letter from the clerk in the social security office stating that you have applied for a new card. A copy of this letter must be given to the Payroll and Benefits office before you can be paid. When your new card arrives, bring your card to the payroll liaison in the department so a photocopy of your card can be kept in your file

8.5 Health Insurance. All students are required to be covered by health insurance. You must sign up for the University Student Health Insurance Program unless you have another plan in place and specifically waive the University plan. Before Fall semester each year, you will receive a form to fill out to select the student health plan or to waive it. Please notify the Neuroscience office if you plan to waive the student insurance. For more information on the plan and what it covers, contact Student Insurance, x. 5-0800. You may also go to the Neuroscience Program website www.ucdenver.edu/neuroscience and click on the Resources tab.

Also, each student is responsible for making sure that s/he has health insurance coverage **each** semester. If a student registers for at least 5 credits or more, then s/he is considered a full-time student and University Student Health Insurance coverage is provided. Make sure you sign up for it with the Student Insurance office. The Student Health Insurance coverage is effective until August 31st each year.

8.6 ID Cards. You will receive a University ID Card at Graduate School or Neuroscience Program orientation. You will need this card for library privileges and building access after hours and weekends.

8.7 Course Registration. The current year's course book showing course numbers and details can be picked up from the admissions office or can be found online at www.ucdenver.edu/gs. Registration is done online.

Note: You are responsible for knowing registration and drop/ add deadlines each semester, and making sure you have registered on time. Late registration results in a \$60 fine. The Neuroscience Program will not pay any late charges assessed because of missed deadlines! You will be responsible for paying any of these charges yourself.

Note: You must register for at least 5 credits to be considered a fulltime student. A minimum of 5 credits are required in order to be eligible for University Student Health Insurance coverage. You must register for 1 credit in the summer in your second and above years. (The coverage is effective until August 31 of each year).

8.8 Tuition Bills. A few weeks following registration, you will receive a tuition bill in the mail. Please bring these bills to the Neuroscience office for payment as soon as you receive them. **You will be personally responsible for any late charges if you do not bring your bill in before the payment**

deadline.

8.9 Parking. Most students either walk, bike, or take the bus. To find out where to park at the Anschutz Medical Campus, go to the Parking Office in Building 500 on the ground floor across from the Information Desk. Discount RTD bus passes are also sold there. There are bicycle racks located conveniently to most of the buildings; however, you need to supply your own lock. You may also look at the Parking and Transportation website located at <http://www.ucdenver.edu/facilities/parking/>.

8.10 Keys. The Neuroscience Program Administrator will make sure you are issued appropriate keys during your first week on campus. You will have access to the Neuroscience student rooms. To access the shared Conference Rooms, please contact the Program Administrator. Room keys are distributed at Anschutz Medical Campus in Building 500, second floor North wing. **All keys must be returned to the Work Control Center when you no longer need them or you will be charged \$50.**

8.11 Student Office and Study Space. First year students in the program have desk space allocated in the Neuroscience Student Room, in the North Tower, P18-6106. Once a thesis lab is chosen students are provided desk space in their mentor's laboratory.

***** **END OF HANDBOOK** *****

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