

## QUALIFYING EXAM GUIDELINES

### ***What does the qualifying exam consist of?***

The qualifying exam consists of writing **one** NIH-style proposal and defending it in front of a thesis committee. It is also called the **Thesis Proposal**, and it must relate to your thesis work.

### ***When should I take the qualifying exam?***

The exam must be taken during the 5<sup>th</sup> semester (for Ph.D. students) or 3<sup>rd</sup> semester (for MSTP students) of graduate school. However, it may be taken earlier. In other words the exam must be taken by December 31 of the 3<sup>rd</sup> year in graduate school, i.e., during the 2<sup>nd</sup> year in your advisor's laboratory. Exceptions to this deadline will be granted **only** in the case of medical or personal emergency/need but **not** because you did not start the process with sufficient time. Students are urged to begin the Qualifying Exam process in the summer at the end of their 2<sup>nd</sup> year of graduate school: do **not** wait until the Fall of the 3<sup>rd</sup> year to begin the process. It takes significant time and effort to prepare the written proposal and the oral defense. Furthermore, it is difficult to schedule all of the members of your thesis committee to be in one room at the same time for the Qualifying Exam: **DO NOT WAIT UNTIL THE LAST MINUTE AS YOU WILL NOT BE ABLE TO ADHERE TO THE DECEMBER 31 DEADLINE.**

In order to be eligible to take the qualifying exam, students must take all required Pharmacology courses, in addition to meeting the Sackler requirement of obtaining 32 course credits in total (research and seminar do not count towards this total) with a minimum 3.0 GPA. If a student has 1 or 2 credits remaining in the Fall of their 3<sup>rd</sup> year, which they anticipate to complete by taking a Readings course, the student can take the qualifying exam with the permission of the MPTP graduate advisor.

### **NOTE: New Rules at the Sackler Institute Fall 2008.**

- 1) **The Qualifying exam must be taken by December 31 of the 3<sup>rd</sup> year in graduate school.** Students who have not done so by December 31 will be placed on academic probation for the Spring semester of their third year. These students will receive a directive from Sackler to schedule the exam within 6 months. Students who have not passed their qualifying exam by the end of their third year will be terminated from the program.
- 2) **Students who fail to meet with their committee at least once a year will be placed on academic probation.** Failure to schedule a meeting after a semester on probation will result in termination from the program.
- 3) **Timeline for graduation. Students entering their 5<sup>th</sup> year of graduate school must submit, with the assistance of their committee, a status**

**report with a timeline for completion.** Lisabeth Greene of the Sackler Institute is currently working on a form that will be distributed to the students to be completed after committee meetings in the 5th year. With the reality that some students do stay on into their 6th year, this form must be updated if students enter the 6th year. It should be noted that NYUSoM housing is guaranteed for only 6 years.

***Who should be on my proposal committee?***

A student's thesis committee should consist of three Sackler faculty members and your thesis advisor (a total of 4 members). At least one member of your committee (other than your thesis advisor) must be from the Molecular Pharmacology Training Program. Members from other programs will likely be needed to round out your committee. Ideally, the members of your committee should also have some knowledge of your field of study. The make up of the committee should be discussed with your thesis advisor. The student must ask one of the committee members to be the Chair of the Thesis Committee, who is responsible for filling out the Thesis Committee Report (see below) and sending it to the MPTP Graduate Advisor (Erika Bach, MSB-497B). The proposal should be handed out at least 2 weeks prior to the thesis defense date (no exceptions).

**Chair of the Thesis Committee:** The Chair will voice the recommendations of the committee and interface with the graduate adviser. The chairperson is responsible for a written evaluation of the candidate's performance and committee decision. The MPTP Thesis Committee Report file can be downloaded under the Pre-doctoral tab at <http://www.med.nyu.edu/pharmacology/>. The committee members and the student should read and approve the evaluation. The MPTP graduate advisor will forward a copy to Lisabeth Greene in the Sackler office.

***What is the format for the written Thesis Proposal?***

The proposal is modeled after an NIH grant application. It should follow the guidelines indicated below. The document must not be more than 20 pages, not including preliminary data and references. A complete figure legend is expected to accompany each figure. The thesis proposal should be realistic. It should be focused and is expected to include what can be accomplished in a three-year period. Proposals must adhere to these guidelines to be accepted for oral defense.

The proposals should have an introduction providing background

| <b>Guidelines for the Thesis Proposal:</b> |                            |
|--|----------------------------|
| <b>Section:</b>                            | <b>Typical # of pages:</b> |
| Introduction                               | 4-6                        |
| Methods                                    | 1-2                        |
| Preliminary results                        | at least 1                 |
| Specific Aims                              | 1                          |
| Research Design                            | 9-11                       |
| References                                 | at least 1                 |

**Requirements:**

Length: 20 pages not including preliminary data and references  
Line spacing: 1.5  
Font: 12 point  
Margins: 1" all sides

information that cogently discusses the current state of knowledge in the field and provides a context in which the goals of the proposed experiments are formulated. This will be followed by a Methods section in which the experimental protocols used will be explained. The next section of the thesis proposal will present preliminary results. **Note, however, that students need not have any significant results to submit the thesis proposal for the qualifying examination since it is considered an intellectual exercise.** This will be followed by a one page Specific Aims section that outlines succinctly the long range goals of the proposed work and a description of the specific short term goals that include the specific experimental approaches that will be used to achieve these goals. The main section of the proposal, termed "Research Design", includes a coherent (i.e. rationally ordered) presentation of the proposed experiments. This section may include additional background information not given in the introduction to illuminate the rationale for the specific experiments proposed. The experiments themselves should be clearly described and appropriately referenced. Pdf copies of successfully defended thesis proposals from other MPTP students are available from Erika Bach, the MPTP graduate advisor ([erika.bach@nyu.edu](mailto:erika.bach@nyu.edu)).

For each experiment proposed, you should discuss the possible outcomes (expected results) and their interpretations. Importantly, you should discuss difficulties you expect to encounter. You should show that you are aware of the limitations of the proposed experimental approaches and suggest potential alternatives if the anticipated results are not obtained. Students should also discuss the priority of experiments to be performed. The student must email the following to Erika Bach at least 2 weeks prior to the thesis proposal defense date: (1) a copy of your proposal in pdf format (MS Word documents will be not accepted); (2) names of the members of your committee; (3) the date and time of the scheduled oral defense of your thesis proposal.

***What is the length of the oral exam and what is expected of the students?***

The oral exam should take between 1.5 -2 hours, during which time the Thesis Proposal must be orally defended. The student should give a Powerpoint presentation that serves to focus the attention of the committee on those aspects that the student feels are most important. The student and not the advisor should prepare figures. Remember that poor visuals will detract from you presentation. **Students are strongly urged to practice their presentation with their mentors, lab members and colleagues.**

During and after a brief introduction and presentation of pertinent preliminary results, the examiners will question the student, attempting to assess the depth of knowledge in the area of the proposal, understanding of the experimental approaches and his/her ability to rationally analyze a problem or issue. Although your advisor will be present during the exam, the candidate is responsible for answering all questions on background, preliminary results and future directions posed by the committee. Your advisor is a silent observer.

**How are students evaluated?** There are three possible outcomes to the qualifying exam that can be recommended by the committee:

**Pass:** The committee feels that the student has met expectations and passed the exam.

**Conditional Pass:** The committee feels that the proposal needs improvement. The student will have 4-6 weeks to rewrite the proposal and resubmit it to the committee for approval. No oral exam is required, if the committee approves the rewritten proposal.

**Did Not Pass:** This has rarely happened to MPTP students. To avoid not passing the exam, students are strongly encouraged to practice the oral defense of their proposals in an audience of peers. Very infrequently, the committee may feel that there are very serious problems with the written proposal and/or oral defense. The committee will consult with the student's thesis advisor and the graduate student advisor as to whether the student should be given an opportunity to rewrite the proposal. This decision will be based on the student's prior performance in the program including coursework, rotations, and the evaluation of the student's thesis advisor. If the student fails the exam and the student has performed adequately in coursework, rotations and has the support of his/her thesis advisor, he/she will be given an opportunity to rewrite the proposal and retake the oral exam a second time within the next 4-6 weeks. Students who fail the exam a second time will be not be allowed to continue in the Molecular Pharmacology Training Program.

### ***Thesis Update Meetings***

After the student successfully defends his/her Thesis Proposal, s/he must meet with his/her committee **every 6 months** to review the student's progress and provide guidance. **This means that you must meet with your committee twice a year.** It is the responsibility of the student to schedule these meetings accordingly. Only in the case of medical/personal emergency/need will there be an exception granted for the requirement of meeting with your committee twice a year.

For a thesis "update" meeting, the student must write a short, succinct report (4 pages maximum) documenting the progress that the student has made since the last committee meeting. The student should prepare a Pointpoint presentation (typically ~30-45 minute in length) in which the student documents his/her progress. As before, the student and not the advisor should prepare figures. Pdf copies of progress reports from other MPTP students are available from Erika Bach ([erika.bach@nyu.edu](mailto:erika.bach@nyu.edu)). Again a copy of the filled-out and signed MPTP Thesis Committee Report for the thesis update meeting must be given to the MPTP Graduate Advisor (Erika Bach, MSB-497B). Again this file can be downloaded under the Pre-doctoral tab at <http://www.med.nyu.edu/pharmacology/>.

In accordance with new rules from Scakler, if the committee determines that sufficient progress has **not** been made, the student will be placed on probation for one semester and will be required to schedule another meeting before the end of the probationary period. If sufficient progress is not demonstrated in the second

meeting, the student may be asked to leave the program. Progress will be judged by several criteria including: the ability to communicate in a written report and an oral presentation the nature of the experiments performed, place them in the context of current scientific dogma and direction for the future.

**As stated above, students entering their 5<sup>th</sup> year must submit, with the assistance of their committee, a status report with a timeline for completion.** With the reality that some students do stay on into their 6th year, this form must be updated if students enter the 6th year.

**The MPTP Graduate Advisor must have copies of Thesis Committee Reports for the Qualifying Exam and all Thesis Update Meetings in order to approve the student's graduation.**

### ***Thesis Defense***

A student will have at least 2 meetings with his/her thesis committee after the Qualifying Exam and prior to his/her thesis defense. When the thesis committee feels that the student has carried out an important body of work sufficient to defend their thesis, they will recommend that the student begin writing their thesis. For the oral thesis defense, the student needs to select an additional outside committee member who is not a faculty member of the NYU.

### ***Insufficient progress made after passing the Qualifying Exam***

The MPTP guidelines have been designed to help MPTP students defend their PhDs with 6 years of matriculation. Currently, the average time to completion of a PhD at Sackler is 5.25 years (5.4 for MPTP students), as compared with 5.5 years nationally. The student's thesis committee will document in writing the progress made by the student after passing the qualifying exam. **Students entering their 5<sup>th</sup> year must submit, with the assistance of their committee, a status report with a timeline for completion. This form must be updated if the student enters his/her 6<sup>th</sup> year.** Students entering the 7<sup>th</sup> year in graduate school without significant progress to be able to defend their thesis will be placed on academic probation. They may also be asked to leave the MPTP if sufficient progress has not been made after one semester on probation.

Note: This file (MPTP Qualifying Exam Guidelines 2008-9) can be downloaded under the Pre-doctoral tab at <http://www.med.nyu.edu/pharmacology/>