

## **PRELIMINARY EXAM PROCEDURES**

**Purpose of the Preliminary Exam.** There are several areas that are tested by the preliminary exam.

1. The student's knowledge base in cell and developmental biology, with particular emphasis on the area of the student's preliminary exam proposal.
2. The student's critical thinking skills. It examines the student's ability to critically evaluate relevant literature needed to prepare the proposal.
3. The student's knowledge of, and application, of the scientific method. It examines the student's ability to generate sound hypotheses, design experiments, evaluate the results and offer alternative approaches and interpretations.
4. The student's ability to write an organized, coherent scientific document.
5. The student's ability to prepare and present a Powerpoint presentation in a timely, well organized manner.

**Timing of the Preliminary Exam.** Students in the CDB program take the comprehensive exam in the second year of enrollment in the graduate program. To initiate the process, the student submits a one-page abstract containing two specific aims. Starting in 2015 the proposal should be directly related to the student's thesis research project. The abstract should be submitted to the Chair of the CDB Curriculum Committee. This is typically done by the end of the Spring 1 semester of the second year of study. This summary of the proposal will be evaluated by the Curriculum Committee and the student will be notified if it is approved/disapproved. After notification of approval, the student will have one month to complete the written proposal.

**The Examination Committee.** An Examination Committee is appointed by the Curriculum Committee, consisting of 3-4 faculty members with broad expertise in the area of the proposal. The Examination Committee will be composed of individuals who are standing faculty members in the College of Graduate Studies. The chair of the curriculum committee and/or directors of the graduate program will attend all the preliminary examinations and will serve as Chair of the Examination Committee. The

student's Research Advisor is excluded from the Examination Committee. The student may make recommendations to the chair of the Curriculum Committee regarding suitable members of the faculty who can serve on Preliminary Exam Committee. The Committee Chair will prepare a summary of the Preliminary Exam recommendation on behalf of the Committee to be part of the students record.

- The chair of the Curriculum Committee will make the arrangements regarding the members of the Preliminary Examination Committee and schedule the date of the examination.
- The Comprehensive Examination has both oral and written portions. The Chair of the Preliminary Examination Committee will meet with the student after the Preliminary Exam to address any deficiencies raised by the Committee. In addition, members of the committee will be asked to provide the student with short written critiques of the proposal.

**The Proposal and Format of the Exam.** The format of the proposal follows the guidelines for an F30/F31 NRSA predoctoral fellowship. The graduate school would like to encourage all students to consider the preliminary exam proposal as a starting point for submission of a fellowship application to the NIH. The written Preliminary Exam Proposal is to be 7 pages. Page 1 will be the SPECIFIC AIMS which can be the same ( or modified ) version of the document originally submitted to the committee. The RESEARCH STRATEGY is 6 pages. There is no page limit for the CITATIONS. All pages should be single spaced and use Arial 11 font and 1/2 inch margins on all sides of the page. The RESEARCH STRATEGY should contain the following sections: b) BACKGROUND AND SIGNIFICANCE c) INNOVATION and d) APPROACH. The student is encouraged to read the description of these sections on pages 103-104 of the application guide at the NIH web site ([http://grants.nih.gov/grants/funding/424/SF424\\_RR\\_Guide\\_Fellowship\\_VerC.pdf](http://grants.nih.gov/grants/funding/424/SF424_RR_Guide_Fellowship_VerC.pdf) ) .

The APPROACH section must include the predicted outcomes of experiments as well as potential pitfalls and alternative approaches. It is important that the document clearly states what hypothesis is being tested. At the beginning of the Preliminary Exam the student provides a 30 minute presentation summarizing the goals of the proposal. This is followed by a 1.5 h oral exam by the Committee. Once the exam is completed and after deliberation by the Examination Committee, the

student is notified of the outcome immediately: Pass or Fail. The student can take the comprehensive exam twice. That is, if the student fails on the first attempt, he/she will be re-tested according to the Examination Committee's directive. The outcome of the second attempt is Pass or Fail. Failing the comprehensive exam twice results in dismissal from the program. Upon successful completion of the comprehensive examination, the student officially becomes a candidate for the degree of Doctor of Philosophy. During the remainder of his/her tenure as a graduate student, the candidate's time is devoted primarily toward completion of the research thesis.

**The Role of the Thesis Advisor.** The Preliminary Exam Committee is a test of the student's ability to pursue advanced studies in Cell and Developmental Biology. While it is understood that the student may seek advice and assistance from their advisor, the student must be solely responsible for the preparation of the written and oral portions of the exam. The student may:

1. Contact the Chair of the Preliminary Examination Committee to request clarification regarding the Preliminary Examination process.
2. Conduct a "mock exam" after submitting their proposal to receive feedback from their thesis advisor, faculty and peers.

**Time Frame for Rectifying Failures.** A student who fails the Comprehensive Exam is expected to retake it and pass no later than two months after the first attempt.

**Extensions of the Deadlines.** A student who is unable to comply with the deadlines must petition the CDB Executive Committee for an extension. Extensions will be granted only for verifiable extenuating circumstances such as illness or serious personal situations.