

## Guidelines for the Ph.D. Candidacy Exam in Basic and Translation Biomedicine Program

### Purpose:

1. To evaluate the candidate's basic knowledge in the field
2. To evaluate the candidate's ability to organize and defend a hypothesis-based research project in grant format
3. To evaluate the candidate's ability to think and integrate ideas and concepts

### Overview of the written portion of the exam:

The Integrated Pharmaceutical Medicine program uses a grant proposal format (NIH F31, NRSA) as the basis for the candidacy evaluation. The grant proposal ***should be on a topic that is relevant to the student's field of research***, however, cannot be a duplication of their advisor's current or pending grant proposal (i.e. a student can choose to study a different protein, circuit, type of behavior, using same techniques/similar approaches in same disease state or conditions being explored by the lab, but must be something that is not currently be explored). The proposal should be based on clear hypotheses and should be developed based on real data. That is, the assumptions and hypotheses should be based on the student's own data or data obtained from the literature with proper citation. The document should follow a traditional NIH format consisting of three parts, the Specific Aims (1-page), the Research Strategy (6-pages max; includes Significance, Background, and Approach), and Literature Cited.

### Process for administering the Oral Exam:

The exam will be administered by the advisory committee. Approximately 6-7 weeks prior to the candidacy exam, the student should meet with the advisory committee to discuss a general outline of the grant proposal. At this initial meeting, the advisory committee will discuss with the student the topic and general approach to writing the grant proposal. The advisory committee will share any major concerns they have regarding the approach including the research question, hypotheses, aims, or other issues. Either at this meeting or in a subsequent meeting (if required) the advisory committee will approve the Doctoral Candidacy Exam Topic. **After the committee's approval is in place there should be no further discussion between the candidate and the advisory committee or other faculty.** The candidate is encouraged to talk with other students or postdoctoral fellows regarding the writing of the proposal and for help in practicing the oral defense. **The candidate will have approximately 6-weeks to write the proposal.**

At the conclusion of the 6-week writing period, the student will submit their written proposal to the committee. The committee will have 1-2 weeks to evaluate the proposal to judge the student's knowledge of the key literature and background material surrounding the topic, as well as, the logic of the scientific approach. At the conclusion of that evaluation, the committee will convene to determine if the student in their document has satisfactorily met these conditions to proceed to the oral portion of the examination. In the event that the student's proposal is deemed unsatisfactory, the committee will meet with the student to review necessary revisions and the timeline for completion.

The oral examination will consist of an oral presentation by the student summarizing the grant proposal. The presentation should be 25-30 minutes in length. The oral presentation will be followed by two rounds of questioning. The first round will permit each advisory committee member to ask questions and engage in discussion with the candidate for approximately 10 minutes. The second round should be shorter in duration with approximately 5 minutes of time allocated per committee member. A selected moderator will be responsible for keeping time. There are no absolute rules regarding the type of questions to be asked, though it would be reasonable for the first round to focus on issues specific to the proposal and the second round to be more general or more related to background information. Additionally, if the committee determines that additional questioning time is required to complete the assessment of the student, a third round of questioning (maximum 20 minutes *en toto*) can be implemented at the committee's discretion.

#### **Exam Outcomes:**

There are three general possible outcomes; pass, conditional pass, fail. The outcome will be based both on the written document as well as the oral defense of the grant proposal. If the candidate receives a "conditional pass," then the student must fulfill the agreed-upon conditions either related to the written document, the oral defense or both. **The student should be provided approximately 2 weeks to prepare for additional examination or to provide document revisions.** A candidate who fails the exam, but otherwise is a student in good standing, will be given the opportunity to repeat the Candidacy Exam or they may be failed for the Candidacy Exam, which leads to dismissal from the doctoral program.

#### **Sequence of events leading to the Ph.D. Candidacy Exam:**

1. The following documents/information must be provided to the Program Director at least six weeks prior to the PhD Candidacy Exam:
  - a. A copy of the "Guidelines for the PhD Candidacy Exam" signed by the student and the supervisor. Signatures are required in order to ensure that the student and supervisor have read the guidelines.
  - b. A list of the PhD Candidacy Exam Committee (Chair, advisory committee, and the two proposed additional academic members of the University). At least one of the committee members must be from outside the department of the student's primary advisor.
  - c. The date on which the grant proposal needs to be handed in to the PhD Candidacy Examination Committee including the Chair and supervisor.
  - d. The date and time of the PhD candidacy exam.
2. Once these documents have been received, they will be reviewed by the Program Director to ensure that the conditions for scheduling the PhD Candidacy Exam have been met.
3. Once the PhD Candidacy Examining Committee has been approved by the Program Director, a copy of the form will be sent to every member of the Committee. The scheduling of the PhD candidacy exam will not take place until the student and supervisor indicate that they have read and will adhere to these guidelines.
4. A copy of the completed grant proposal that serves as the Candidacy Exam will be submitted to the Program Director along with a copy of the "Candidacy Signature Page".

The scheduling of the Ph.D. candidacy exam will not take place until the student and supervisor indicate that they have read and will adhere to these guidelines. Please sign below to indicate that you have read the "Guidelines for the Ph.D. Candidacy Exam" and agree to adhere to these guidelines.

### Snapshot: BTB Canidacy Examination Timeline

Start

6-7-weeks out	6-weeks out	2-weeks out	Oral Exam
<p><b>Preliminary Committee Meeting with Student</b></p> <p>Committee Discussion and Approval of Topic</p> <p>Exam Date is Determined</p>	<p><u>Writing period</u></p> <p>Student works idependently to draft a NIH F31 style written proposal based on comittee approved topic</p> <p>Student works idependently to draft a NIH F31 style written proposal based on comittee approved topic</p>	<p><b>Submission/Review</b></p> <p>Students submits written document to committee for review</p> <p>Student creates PPT</p> <p>Student prepares for presentation and oral defense</p>	<p>2-3 Rounds of Direct Questioning from the Committee</p> <p>Committee discusses and determines Exam Outcome</p>

***Signatures are required from the Advisor and Student indicating that they have read, understand, and accept the terms and expectations of the BTB Candidacy exam. Please return via email to the BTB program directors.***

Student Signature \_\_\_\_\_ Date \_\_\_\_\_

Advisor Signature \_\_\_\_\_ Date \_\_\_\_\_