

**PHARMACOLOGY DEPARTMENT GUIDELINES**  
*for the*  
**ADVANCEMENT TO CANDIDACY EXAM**

Revised, August 2015

THE ADVANCEMENT TO CANDIDACY EXAM is comprised of two parts: a grant-style document, or proposal, and an oral examination/defense of this document. Five Examination Committee members selected by you and your mentor will evaluate both parts of the exam. The Graduate Committee will make the final decision concerning each student's eligibility for Advancement to Candidacy in the Ph.D. program. Below are some guidelines to help you and your mentor better understand the Advancement to Candidacy process.

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**TOPIC:**

You will work with your mentor to select a topic for the Advancement to Candidacy Exam. The topic may or may not be related to your Ph.D. thesis.

**COMMITTEE MEMBERS:**

The Examination Committee will be comprised of **five members**, to be selected as follows:

- **Three members of the Pharmacological Sciences Training Grant.** You and your mentor, with the approval of the Graduate Committee, will select these members. (It is possible for *one* of these three Committee Members not to be part of the Training Grant Faculty, but only with very good reason.) A list of PSTG mentors is available on the Pharmacology Department website.
- **Two members of the Graduate Committee.** The Graduate Committee will appoint these members and one of them will serve as Chair of the Examination Committee. You may suggest which two members you and your mentor think are most appropriate to review your proposal, but the Graduate Committee will make the final decision.

**Members of the Graduate Committee:**

- **Paula Barrett**, 5058A Jordan, 924-5454, pqb4b
  - **Doug Bayliss**, 50009A Jordan, 982-4449, dab3y
  - **Thurl Harris**, 5221B Jordan, 924-1584, teh3c , *Director of Graduate Studies*
  - **Norbert Leitinger**, 5039A Jordan, 243-6363, nl2q
  - **Kevin Lynch**, 5227B Jordan, 924-2840, krl2z
  - **Ira Schulman**, 5218B Jordan, 924-5682, igs4c
- Committee members do not need to be the people you plan to do your Ph.D. research with. **Your mentor may not be one of the Examiners chosen above.**

## WRITTEN PROPOSAL:

The document will be in **grant format**; it should be typed using **11 pt Arial** and **single line spacing**. It must be **10 pages** in length **including figures, excluding references** (try to keep it under 50, if you can). The proposal should **pose a scientifically sound question** that integrates what you have learned in your classes. The Examination Committee will evaluate your proposal and assign it a grade of High Pass, Pass, Conditional Pass, or Fail.

1. **Specific Aims** (not to exceed 1 page)
  - Abstract summarizing rationale (1-2 paragraphs)
  - **Specific Aims:**
    - **Aim 1-3: declarative phrase or question**
    - 2-3 lines listing the experimental approaches (1.1, 1.2, 1.3) used to explore the question
  
2. **Background and Significance** (2 pages)
  - Use **bolded** subheadings to divide the information
  - Explain what is known and NOT known indicating where your studies will address these knowledge deficiencies.
  
3. **Preliminary data and significance** (1 page)
  - Usually this is your own data but for this exercise data from others can be included
  
4. **Research Design and Methods**
  - **Specific Aim 1** (and for subsequent specific aims): Repeat statement of aim
    - **Rationale:** Provide a succinct one paragraph summary of the rationale
    - **Protocols: for each individual approach (1.1, etc.)**
      - (1.1) Subheading of experiment
        - **Design:** explain experiment
        - **Control Experiments**
        - **Data Analysis:** exactly what you will measure, number of cells, experiments, statistical analysis
        - **Anticipate Results/Limitations**
      - (1.2, 1.3)
    - **Methods**
  
5. **Literature Cited** (try to keep it under 50, if you can)

**Note:** When discussing the literature in the background and significance section or explaining an experiment under research design and methods, a small diagram is sometimes very helpful:

- To delineate cascades
- Explain complicated experimental approaches
- List constructs or reagents that might be compared

### ORAL EXAM/DEFENSE:

The Examination Committee will separately evaluate and grade your ability to orally defend the written proposal. This defense will also be assigned a grade of High Pass, Pass, Conditional Pass, or Fail. Questions will focus on, but may not be limited to, the written document and the oral presentation. Your mentor may be present at the defense as a “silent partner,” but cannot serve as an Examination Committee member.

### ADVANCEMENT TO CANDIDACY:

The Graduate Committee will determine Advancement to Candidacy within **two weeks** of the oral examination. In making their decision, the Committee will take into consideration your **overall performance in course work, laboratory rotations, and Journal Club presentations**. The Committee will also consider the **evaluation(s) provided by the Examination Committee** on your written proposal and oral defense, as well as the **letter of support from your mentor**.

### DEADLINES:

- **April 1<sup>st</sup> – Submit the Candidacy Examination Form** to Jolene Kidd in the Graduate Office. The Graduate Committee will review your form and approve (or suggest changes if necessary) your proposal topic and Examination Committee members.
- **Set the examination date!** As soon as you receive notification that the Examination Committee and proposal topic have been approved, set a date for the oral defense of your proposal. You must coordinate this date with your Examination Committee members and, once confirmed, notify Jolene of the date, time, and location for your oral exam. Your examination can take place as early in the semester as you would like, **however it must be completed no later than July 15<sup>th</sup>**.
- **Two weeks prior to your oral defense:** All Examination Committee members must receive a copy of your written proposal *at least* two weeks before the date of your oral exam. One copy of your written proposal must be given to Jolene for inclusion in your student file.
- **One week before your defense:** Make sure **your mentor** gives a **letter in support of your Advancement to Candidacy** to Jolene. This letter should detail why your mentor believes you will succeed in the Ph.D. program and why you should Advance to Candidacy.