

EXPECTATIONS FOR ADVANCEMENT TO CANDIDACY EXAM

Developmental and Cell Biology, revised September 29th, 2017

10.3 GOAL OF EXAM (From the Grad Handbook):

The purpose of the AtC exam is to determine if the student is capable of Ph.D. quality research. This encompasses two related aspects: 1) defining a tractable research problem; and 2) demonstrating requisite knowledge, skills and experimental sophistication to convince the committee that there is a high probability for the project to succeed.

You need five members on the AtC Committee, see page 12 of the DCB Grad Handbook for details on composition of the Committee.

Points the Committee will consider in evaluating your performance:

1. Are the experimental Aims proposed supported by a strong rationale? Is it clear you have selected problems that you *should* address and not just problems that you *could* address?
2. Will testing the hypotheses underlying your Aims lead to significant and impactful research worthy of publication in a peer-reviewed journal?
3. Have you or the lab acquired the necessary preliminary data to support the feasibility of your experimental plan?
4. Will you have access to the reagents, tools, and equipment necessary to complete the experiments you propose?
5. Will you have the skills necessary to complete the work you have planned? If not, how will you acquire these skills?
6. Can the project be completed or at least lead to a publication within the normal time to degree?
7. Are the Aims proposed connected, cross-informative, or synergistic in any way? This is desirable, but not essential in every case.
8. Can you fluently discuss the answers to questions 1-7 without significant assistance from your thesis advisor?
9. Are you familiar with the relevant background literature for your project? Mastery is not expected at this stage, but students who successfully advance will have demonstrated the ability to identify, read, understand, and summarize primary literature relevant to their thesis work.
10. Do you understand the appropriate controls for the experiments proposed and the caveats of the techniques you will utilize? Can you explain at a basic level how the assays that will be utilized work?
11. Are you able to prepare a cogent oral presentation describing your research plans? Again, training is on-going, but it is expected that a student who successfully advances will be able to prepare a clear and organized slide set to support their proposed research.
12. Is the written AtC document carefully prepared and does it use appropriate scientific language? Are figures clear, accurate, and readily understood? Are appropriate references cited throughout the document? Again, you are in training, but should meet standards appropriate for a 3rd yr student.

REMEMBER TO BRING THE FORMS THE COMMITTEE NEEDS TO SIGN TO THE ATC EXAM! :)

Students who do not successfully AtC on the first attempt will be allowed a second attempt without any punitive action as long as standard deadlines for adequate progress to degree are met