

N. Preparation for Doctoral Dissertation

Students are expected to meet regularly with their Thesis Advisory Committee to review progress and obtain valuable input. Decisions about the scope of the dissertation should be reachable by consensus. **The Molecular Medicine Program requires a minimum of 1 first author peer-reviewed, original research publication as an outcome of the student's Dissertation research, and our most successful students generally have multiple first author and/or co-authored publications.**

The Thesis Advisory Committee is responsible for deciding when the dissertation is ready for defense. This decision is based on a detailed evaluation of the student's research progress - including all tables, figures and data analyses as well as a review of published papers - in a final Thesis Committee Meeting. The Thesis Advisory Committee will determine if additional research or training is required, or whether the student is ready to defend her/his dissertation. Students may formally begin to draft their thesis and plan for their formal Public Dissertation *only after receiving written approval* from the Thesis Advisory Committee signified by indication that 'this is the final Committee meeting before defense' on the Post-Candidacy Committee Meeting Record (**Appendix 5**).

O. Doctoral Dissertation

The Doctoral Dissertation is expected to be an original contribution to scholarship or scientific knowledge and to exemplify the highest standards of the student's discipline. The dissertation is the culmination of a training process designed to prepare the student to conduct independent research. The successful completion of the dissertation provides proof that the student has the ability to ask significant questions, develop appropriate, detailed approaches to addressing these questions and that the student can effectively gather and interpret data.

Once the student is preparing to write their thesis, they should consult the Graduate School website (<http://www.graduate.umaryland.edu/Forms/>) for the current forms and deadlines for graduation. For clarification on any of the information provided students should call the Graduate School at 410-706-7131. The student must be registered for at least one credit in the period in which they intend to graduate, including summer and winter sessions, and must have been registered overall for a total of at least 12 doctoral dissertation research credits (*GPLS 899*) as well as having completed a successful Dissertation Defense. It is the responsibility of the student to follow and meet all Graduate School deadlines. Please note that the first deadlines occur 6 months prior to graduation and plan accordingly.

The Doctoral Dissertation and Thesis Style Guide is available on the Graduate School's website: (<http://www.graduate.umaryland.edu/Forms/>). Students are expected to carefully read and follow these guidelines as the final dissertation is being prepared. The Dissertation consists of an Introduction, several chapters presenting research results and a Discussion. The Introduction should include a thorough review of the literature and a general justification for the research project. Each chapter should include an introduction and justification for that particular experiment, unique methods, results and a discussion. A comprehensive final chapter should review the findings presented in the chapters, integrate them with each other and place them in the larger context of the existing literature. Questions left unanswered or identified for future exploration should be elucidated. Publication of findings in peer reviewed journals prior will facilitate final preparation of the dissertation and is strongly encouraged.

The Doctoral Dissertation should be completed and reviewed by the mentor at least 1 month prior to the anticipated defense date. The student should allow 2 weeks for the readers to provide comments, and then a minimum of an additional 2 weeks for review by the entire Doctoral Dissertation Committee. The Certification of Completion of the Doctoral Dissertation form, completed and signed by the readers, is provided to the Program Director along with the student's CV for certification of completion of all molecular

Medicine program requirements, and then must be submitted to the Graduate School at least 2 weeks prior to the proposed examination date.

The Dissertation Defense will consist of a public seminar, announced campus-wide, and will be followed by a private meeting of the candidate with the Doctoral Dissertation Committee (composed of the members of the Thesis Advisory Committee). At this meeting, committee members may discuss with the candidate any issue related to the dissertation. This may include, but is not limited to: challenges encountered, approaches considered to address problems, appropriateness of experiments, limitations of the approach, alternative interpretations of results, and future directions. The Committee will meet briefly in private to vote and will then immediately inform the candidate whether or not the defense has been accepted. If the committee decides that the defense is not acceptable, the candidate will be given one more opportunity to pass.