

Memo: **Guidelines for a Biomedical Sciences PhD Dissertation**, January 2010

From: Alison Hall

To: PhD students and faculty on thesis committees at the SOM, Graduate Studies

Background: The purpose of this document is to provide general guidance with which to format a biomedical sciences doctoral dissertation, and key steps at which plans must be discussed with the advisor and thesis committee. Detailed instructions for electronic dissertations are described on the Graduate Studies website (<http://www.case.edu/provost/gradstudies/>). Those instructions specify ordered components (title page, list of tables, etc) to meet CWRU Graduate Studies requirements. The following recommendations concern the TEXT portion in biomedical sciences PhD dissertations. The content of this memo has been discussed and revised with input from the Graduate Program Directors, Basic Science Chairs and Health Science Librarians at the SOM. This memo includes guidelines concerning

A. Structure and Style of Dissertation

B. The relationship of material in the dissertation and journal articles

C. Use of the Delay Request Form to Embargo the Thesis, Checklist

A. Structure and Style of Dissertation. The thesis committee has full responsibility to determine structure and style of the dissertation, and there is no other “checking” after the committee approval. Students are advised to consult with the committee chair and/or thesis committee regarding an acceptable structure and style before they begin to prepare the dissertation manuscript. The structure of the TEXT of the chapters may follow one of several common examples:

Example 1: General Introduction (~20 p)
 Research Chapters 1...each with 1 p rationale, lengthy approach
 and results, and 1 p summary (each chapter ~20p)
 General Discussion (~20p)
 Appendices

Example 2: General Introduction (~20 p)
 General Methods (~20p)
 Results Chapters 1... (each chapter ~20p)
 General Discussion (~20p)
 Appendices

In general, the style should conform to the major professional or scientific journals in the academic discipline of the program. For the TEXT, the Biomedical Graduate Program Directors suggest the use of the **International Committee of Medical Journal Editors “Uniform Requirements for Manuscripts” also known as the Vancouver Style (for full text <http://www.icmje.org/>)**. For example, the Vancouver style suggests numerical references in the text, as Smith (10), and provides key information on how to reference websites. The EndNote bibliographic software has a “Vancouver” output style.

B. The relationship of material in the dissertation to proprietary interests and journal articles. It is a CWRU requirement to publish all doctoral dissertations through UMI/ProQuest via OhioLink, using directive forms on the Graduate Studies website. Before electronic dissemination, dissertations were considered “unpublished” but now they are essentially immediately available internationally

through the internet. The dissertation is the scholarly product of the student, but represents research that may have been performed by teams of collaborators, or partially financed by interests outside the University. Because these relationships can be complicated, the student must discuss the relationship of figures and information in the thesis and that of sponsors with the mentor and the thesis committee. Most School of Medicine doctoral programs also require students to publish their work in peer reviewed scientific journals. *Electronic dissertation publication carries with it new concerns about copyright, intellectual property and novelty that did previously come up.*

Obtain Copyright Release for materials in the dissertation. The signature page signed by members of the thesis committee to “approve” the dissertation includes an asterisk that indicates

*We also certify that written approval has been obtained for any proprietary material contained therein.

Thus, the thesis committee is also the only and final “gate” responsible for active review of the dissertation content for any copyright release, proprietary info, etc.

Many Biomedical sciences PhD dissertations include figures to describe a general overview or working hypothesis, as well as figures for primary data. It is NOT permissible to download a figure from a website and use or adapt it in a dissertation without explicit permission from the publisher. Students are strongly advised to completely redraw a general figure for use in a dissertation.

The journal publishers’ instructions to authors are likely to include information on how to seek permission to use previously published information in a dissertation. Alternatively, Rightslink Automated Reprints and Permissions (<http://www.copyright.com/viewPage.doc>) may be of use in obtaining publishers’ release. Students should present the release to the thesis committee and attach the permission letter from the publisher as an appendix to the thesis.

C. Potential redaction, Thesis Embargo and use of the Delay Request Form

Electronic dissertation publication may also impact the ability of the work to be published in a journal and/or may affect contract or intellectual property agreements with those who sponsored the work. Students and their committee may wish to discuss a written dissertation and redact proprietary information before final submission. Further, many committees encourage the inclusion of pilot data for new avenues of research in the thesis, but may not wish this material to be immediately disseminated. Indeed, if a student releases the thesis to ETD and wishes to publish similar information in a subsequent primary journal article, it is important to work with the journals, and indicate that the material was previously published in a dissertation. It is very important that students discuss these possibilities with their research mentors, and consider the opportunity to temporarily embargo publication of the dissertation, using “Delay Request” form.

The SOM Graduate Program Directors now require the student to bring the “Delay Request Form” with the thesis signature cards to the thesis committee approval meeting.

Checklist for Faculty Thesis Committee Members

Completion of the dissertation can be an exciting and anxious time for students and faculty alike. In addition, completion of publications, interviews for new positions, and fellowship applications can impose time constraints on the process. Several key steps of the doctoral completion process described online at Graduate Studies require close attention:

1. Student Announces Intent to Graduate.

The “Calendar of Important Deadlines” online at Graduate Studies indicates the deadlines associated with the January, May and August graduation dates. It is the students’ responsibility to communicate these deadlines as needed to their thesis committee and research advisor.

The oral examination must be announced to the University at least 3 weeks in advance, using “*Notification for Scheduling the Final Oral Exam for the PhD*” form available online at Grad Studies.

This “*Notification*” form requires the Department Chair signature. Students are strongly advised to inform the thesis committee and the chair well before this deadline of their intent to graduate so that any concerns from the committee may be addressed. Chairs may elect to use their signature (or absence) on the form as a gate to bar progression if there are concerns.

2. The Dissertation Content, Permissions and Embargo.

Students must provide a complete copy of the dissertation to the examining committee at least ten days in advance of the oral examination.

The thesis committee has responsibility for some aspects of the content of the dissertation. Thesis committee members will eventually sign a “*Committee Signature Sheet*” as part of the dissertation that indicates:

***We also certify that written approval has been obtained for any proprietary material contained therein.**

Thus, committee members should be scrupulous about identifying whether any figures reflect work not done by the student, and that appropriate permission has been obtained for their use in the dissertation. In some cases, previously published work by the student will also require publisher permission. Further, proprietary materials etc may require further discussion. **Students must seek copyright release or permission for any of these materials, and provide that release in the appendix of the dissertation.**

In addition, it has become customary that students include unpublished work, pilot data in a new area, or future studies in the thesis. The student and mentor may not wish for this work to be electronically published immediately, and choose to temporarily embargo the thesis.

It is at this point—before the defense or revisions of the dissertation-- that the student, mentor and thesis committee should discuss whether to embargo the thesis before release internationally. The student and thesis committee should review and sign the “*Delay Request Form*” as necessary.