THE GRADUATE PROGRAM IN
MOLECULAR PATHOLOGY AND IMMUNOLOGY

FACULTY AND STUDENT HANDBOOK:
REQUIREMENTS AND RESPONSIBILITIES

DEPARTMENT OF PATHOLOGY, MICROBIOLOGY AND IMMUNOLOGY
VANDERBILT UNIVERSITY

Revised September 2020
CONTENTS

I. OVERVIEW ...................................................................................................................... 3

II. PROGRAM ...................................................................................................................... 3

   A. First Year
      Special note concerning direct admission ................................................................. 3-4

   B. Course Requirements — Ph.D.
      Required Courses .................................................................................................... 4
      Electives in the Molecular Pathology and Immunology Graduate Program ............. 4

   C. Course Requirements — MSTP (Medical Scientist Training Program) ................. 5

   D. Selection of Thesis Advisory Committee ............................................................... 6

   E. Qualifying Examination Phase I ............................................................................. 6-7

   F. Qualifying Examination Phase II ........................................................................... 7-8

   G. Role of Thesis Advisory Committee ...................................................................... 8-9

   H. Role of the Mentor During Phase I Exam, Phase II Exam, and Dissertation Defense.. 9

   I. Journal Club and Research Presentations .................................................................. 9

   J. Conflict Resolution .................................................................................................. 9-10

   K. Thesis
      Preparation ............................................................................................................... 10-11
      Defense ..................................................................................................................... 11
      Summary .................................................................................................................... 11
      Final Examination .................................................................................................... 11
      Guidelines for Examiners ...................................................................................... 11
      Final preparation and binding ............................................................................. 11-13

   L. Graduate Student Travel .......................................................................................... 13

III. THESIS ADVISORY COMMITTEE REPORT FORM ......................................................... 14

IV. FORMS LIST .............................................................................................................. 15

V. GRADUATE SCHOOL POLICY ON PARENTAL LEAVE .................................................... 16
I. OVERVIEW

The graduate program in Molecular Pathology and Immunology provides training in biochemical, cell and molecular biological research to elucidate the fundamental mechanisms of human disease processes. The program emphasizes training in experimental laboratory investigation leading to the Ph.D. degree for students interested in pursuing careers in basic biomedical research and teaching. Graduate study in this area offers students the opportunity to integrate principles of immunology, molecular genetics, cell biology, biochemistry, and biophysics into research relevant to improving the quality of life through the discovery of new avenues for treatment of disease.

II. PROGRAM

A. First Year

The first year of graduate study in Biomedical Sciences at Vanderbilt is under the direction of one of the introductory programs, such as the Interdisciplinary Graduate Program (IGP), Quantitative Chemical Biology (QCB) or Medical Scientist Training Program (MSTP). All graduate students in the Biomedical Sciences, regardless of their specific interests will be enrolled in one of these programs for their first year of study. During this tenure, the students take a common curriculum that is designed to provide a solid core of knowledge in all of the disciplines of basic biomedical science. Even though the students entering this program come from diverse academic backgrounds, it is the aim of this program to prepare students to enter any department with the foundation to perform effectively in any advanced course and to complete the requirements for the Ph.D. degree. During this initial training, students identify the laboratory in which they will pursue their thesis research through research project rotations or discussions with the laboratory PI. At the end of the Spring semester, the students declare their choice of a department and laboratory for their thesis research. If the student chooses the laboratory of a PI with primary or secondary appointment in Pathology, Microbiology and Immunology, they will decide with their mentor which of the two graduate programs (Molecular Pathology and Immunology or Microbe-Host Interactions) with which they will associate.

* Special Note concerning direct admission:

On rare occasions, a student can gain admission directly into the graduate program in Molecular Pathology and Immunology. Direct admission usually occurs when the prospective student has already identified a research laboratory and a mentor within the Department, and the mentor has agreed to provide the financial support (tuition, fees, and stipend) for the student. In most cases, students gaining direct admission will be required to take the IGP coursework during their first year. They will not be limited to 8 hours/semester as with the typical IGP student.

In the rare occurrence of a student wishing to gain direct admission into the Molecular Pathology and Immunology program without first having identified a laboratory and a mentor, the student will be required to complete three 7-week research rotations with Pathology faculty members. These rotations will be interdigitated with course work or they may be taken during the summer. No rotations may be arranged and undertaken without prior approval of the Director of Graduate Studies (DGS). In addition, when a laboratory rotation is undertaken, the student and faculty member involved should notify the DGS in writing. This should include a brief outline of the nature of the proposed project. At the conclusion of the rotation a brief report should be filed by the faculty member and a grade reported to the DGS.
Direct admission to the Cellular & Molecular Pathology Program without having first identified an advisor will occur only under very unusual circumstances.

B. Course Requirements — Ph.D.

Required:

**Summer (generally of first year)**
- M&IM 8332. Foundations In Microbiology And Immunology I

**Fall (generally of second year)**
- PATH-GS 8331: Seminar in Experimental Pathology (Journal Club)
  - Each week must attend either Pathology or Immunology Journal Club
- MPI Introductory Course (choose one of the following)
  - PATH-GS 8351: Cellular and Molecular Basis of Disease I or
  - PATH-GS 8339: Foundations of Immunology

**Spring (generally of second year)**
- PATH-GS 8332: Current Topics in Experimental Pathology (Journal Club)
  - Each week must attend either Pathology or Immunology Journal Club
- M&IM 8335: Research Proposals: Preparation & Critical Review
- M&IM 8334: Special Topics in Molecular Pathogenesis (you must choose at least 4 of the offered half-credit Modules for a total of 2 credits)

**Each Semester**
- Research
  - PATH-GS 8999: Non-Candidate Research (*research prior to entering into candidacy*)
  - PATH-GS 9999: Ph.D. Dissertation Research (*research after entering into candidacy*)

Elective courses:

Required coursework is minimal to allow the student flexibility in their education. Elective coursework will generally be required to complete the graduate school requirements. Students are encouraged to choose courses that fit into their career plans from any biomedical graduate program.

Students must make a grade of B or better in all course work, complete at least 24 hours of didactic work and receive satisfactory (S) grades in Pathology 8999 and Pathology 9999. Three unsatisfactory grades will result in dismissal from the program.

Other venues: Students in the Molecular Pathology and Immunology Graduate Program are expected to attend weekly "Journal Club" sessions in either Immunology or Molecular Pathology and "Molecular Pathogenesis Trainee (MPT)" presentations. Attendance can be excused if the student has an emergency, is attending an offsite conference or if an important seminar or meeting is occurring on site that conflicts with attendance at "MPT" or "Journal Club." It is expected that absences will be rare during the semester. For anticipated absences, it is the student's responsibility to obtain permission to be absent from the DGS (for MPT) or course director for "Journal Club" as soon as they realize a conflict exists. In the case of emergencies, notification should be as soon as possible but no later than one week following the absence. It is at the discretion of the "MPT" or "Journal Club" directors whether an absence is excused. The DGS and MPI Program Manager should be copied on all requests for absence. Attendance is kept at "MPT" or "Journal Club" and the student's attendance record is provided to the student's
Dissertation Advisory Committee Chair prior to each meeting of the committee. The student's attendance is factored into the committee's overall evaluation of the student's progress.
C. Course Requirements — MSTP (Medical Scientist Training Program) Students

<table>
<thead>
<tr>
<th></th>
<th>GS Credit</th>
<th>Semester</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MOLECULAR PATHOLOGY AND IMMUNOLOGY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MEDICAL SCHOOL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall (VMS I)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• HBA, M&amp;IMM, Homeostasis</td>
<td>8</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>• MSTP Seminar (IGP 8310)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring (VMS I)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• EDR, BB&amp;M</td>
<td>4</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>• MSTP Seminar (IGP 8310)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall (VMS II)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• MSTP Seminar (IGP 8310)</td>
<td>0</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Spring (VMS II)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• MSTP Seminar (IGP 8310)</td>
<td>0</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Didactic Hours</strong></td>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td><strong>GRADUATE SCHOOL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Journal Club</td>
<td>1</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>• Cellular and Molecular Basis of Disease or Immunology</td>
<td>2</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>• MSTP Seminar</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Journal Club</td>
<td>1</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>• Research Proposals: Preparation &amp; Critical Review</td>
<td>2</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>• Selected Topics in Molecular Pathogenesis</td>
<td>2</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>• MSTP Seminar</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Didactic Hours</strong></td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td><strong>Total Didactic Hours</strong></td>
<td></td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>
D. Selection of Thesis Advisory Committee

The Thesis Advisory Committee helps advise the student throughout the course of their graduate training. Members should be selected carefully, based on their specific areas of expertise and their expected contributions in advising the student during the dissertation research. The committee will also administer both Phase I and Phase II of the Qualifying Exam and the final defense of their thesis. To help assure that the committee make up provides a breadth of guidance and has a range of experience, the student and preceptor should consult with the DGS regarding prospective committee members. The DGS will submit the proposed committee members to the MPI Graduate Education Committee (GEC) for advice and consent. After obtaining approval from the GEC, the student may contact the faculty to determine their willingness and availability to serve. Faculty members should not be asked to serve on the committee until the list has been approved by the DGS and GEC. The committee will consist of at least five faculty members including the mentor, but a committee can consist of more than five members. All committee members should be a member of the Graduate School Faculty. At least three members, including the Thesis Advisor, must be a member of the MPI program*. At least one member of the committee must have a Graduate Faculty Appointment within another program other than MPI and MHI. A majority of the committee members should be tenured faculty members, particularly if the Thesis Advisor is non-tenured. When the list has been approved by the preceptor and the GEC, the Chair of the Thesis Advisory Committee should be selected by the Thesis Advisor and the student in consultation with the DGS, prior to the first committee meeting. In general, the Chair of the committee should be a tenured member of the MPI program.

After faculty members have agreed to serve on the committee and a chair chosen, a "Request to Appoint a Thesis Committee" form should be completed and submitted to the Graduate School. The Graduate School then officially appoints the committee and notifies each member. The "Request to Appoint a Thesis Committee" form and other forms can be found on the Graduate School website https://gradschool.vanderbilt.edu/academics/forms_timeline.php

*All primary faculty graduate faculty within the Molecular Pathogenesis division are members of both the MPI and MHI program.

E. Qualifying Examination Phase I

Phase I of the qualifying exam will, (1) test the student’s ability to independently define a basic scientific research question, evaluate relevant literature, and propose critical experiments to address the question; and (2) explore the student’s basic knowledge in the field of immunology and pathology. The examination will be administered by the student’s Thesis Advisory Committee and should take place by the end of November of the students second year (first year in the MPI program).

For this examination, the student is required to develop a set of specific aims based on the research they plan to undertake in the Thesis Advisor’s laboratory and defend the aims and their rationale before the Thesis Advisory Committee. A one page outline the specific aims (following the guidelines and rules for the aims section of an NIH F31 grant) must be submitted to the Thesis Advisory Committee and DGS at least 10 days prior to the date of the exam. Although the Aims document will only be one page, the student should come to the exam prepared to explain and defend the hypothesis to be tested and explain how the specific aims directly address the hypothesis, why the proposed experimental approach and design were selected, what outcomes are anticipated for each aim, and what problems
with the approach might be encountered. In addition, the student should provide the committee with a written list of ten key journal articles they found the most critical in developing their hypothesis. The list should also include 2-3 bullet points for each paper that highlight the importance of these papers to the hypothesis. During the exam, the student should be prepared to discuss how these papers contributed to their hypothesis and research design.

The examination will begin with the student presenting a brief overview of hypothesis and aims followed by questions from the committee. It is important that the committee ask questions focused on the proposal to be able to evaluate the student's ability to define a basic research question and propose experiments to address that question. Equally important, the committee should ask questions to test the student's breadth of knowledge of basic immunology and cell pathology as it relates to their proposal. While the amount of time for examination in each of these areas is not specified, it is important that sufficient questions are asked to determine if the student is prepared to proceed with the dissertation proposal and thesis research and to allow the committee to provide the student with substantive feedback regarding areas that need to be improved prior to taking Phase II of the exam.

The examination should last no longer than two hours. During the examination, the thesis advisor should not assist the student in answering questions nor participate in questioning. Unsatisfactory performance may require additional coursework or study followed by reexamination. The student is allowed to consult the Thesis Advisory Committee and/or Thesis Advisor for advice on how to address weaknesses identified in the proposal or examination, and how to improve the proposal or performance in the examination. The reexamination may focus on the identified weaknesses or may be comprehensive. If performance on the re-examination is not deemed satisfactory by a majority vote of the Thesis Advisory Committee, a student may be dismissed from the MPI program.

In order to assure that the examination occurs prior to the end of November, the student should finalize the date of the exam as soon as possible after the specific aims have been determined. The student should notify the MPI Director of Graduate Studies and the Program Manager as soon as the exam date is finalized. The Program Manager can help arrange a suitable room for the exam. Notification of the exam date and scheduling of a room for the exam should be completed no less than four weeks in advance of the exam.

A student should feel free to use the revised aims page, as well as an expanded document describing the experiments to accomplish the specific aims, as the written material for the "Research Proposals: Preparation & Critical Review" course.

Following the exam, the Chair of the committee should meet with the student to discuss how the student did and pass on any comments from committee members. The chair will also author a letter indicating those aspects of the exam in which the student performed well and indicating aspects were deficiencies were noted. In the case of deficiencies, their severity should be indicated and a mechanism for the student to improve his/her performance should be described. This letter should be approved by all committee members and then sent to the student (with copies going to the mentor and DGS).

F. Qualifying Examination Phase II

A student must have completed at least 24 hours of didactic work prior to taking Phase II of the Qualifying Exam. Unless there are special circumstances approved by the DGS (in consultation with the MPI GEC), the Phase II Qualifying Examination should be undertaken during the fall semester of the student's third year (second year in the MPI program).
Once you have established a date for your Phase II Qualifying Examination, you should fill out the Request to schedule qualifying exam form and submit to the DGS for their signature. The DGS will submit the form to the Graduate School. The form is available at https://gradschool.vanderbilt.edu/academics/forms_timeline.php.

For the Phase II examination, the student must submit to the Committee and to the DGS a dissertation research proposal in the format of an NIH F31 grant proposal. (Use Arial, Helvetica, Palatino Linotype, or Georgia typeface, and a font size of 11 points or larger with 0.5 inch margins, no more than 6 lines/inch, and no more than 15 characters per inch average spacing.) The proposal should include a Specific Aims page (1 page) and Research Strategy (Significance, Innovation, and Approach) up to a maximum of 7 pages (6 pages for Research Strategy and 1 page for Specific Aims). The Phase II proposal could be an extension or refinement of work proposed in Phase I or could be based on a new research direction as decided by the student and her/his mentor. The student in consultation with the committee will set a date and will notify the DGS who in turn notifies the Associate Dean of the Graduate School. The DGS and Program Manager must be notified four (4) weeks prior to the date of the exam. The written proposal must be submitted to the members of the committee at least 10 days prior to the examination.

The format for the examination will be determined by the committee but generally includes a brief oral presentation by the student followed by a question/answer period. All questions should be related to the proposal but can include general knowledge when it relates to the proposed experiments or outcomes.

If the student passes the examination, they are admitted to candidacy for the Ph.D. degree. If the committee feels the student has failed the exam, they will be withdrawn from the Ph.D. program. If, however, the committee feels that the student could remediate the deficiencies in the exam, the student can be given a "provisional pass" and asked to re-write all or part of the proposal or undertake other remediation. The committee may also specify a time period in which the students must respond to the concerns. If the student does not successfully address the concerns of the committee (determined, at the committee’s discretion, either by written documentation or reexamination), the student will have been deemed to have failed the examination and will be asked to withdraw from the Ph.D. program. By the regulations of the Graduate School the candidate has a maximum of 4 years from the date of passing the qualifying examination to complete the Ph.D. degree.

Following the exam, the Chair of the committee should meet with the student to discuss how the student did and pass on any comments from committee members. The chair will also author a letter indicating those aspects of the exam in which the student performed well and indicating aspects were deficiencies were noted. In the case of deficiencies, their severity should be indicated and a mechanism for the student to improve his/her performance should be described. This letter should be approved by all committee members and then sent to the student (with copies going to the mentor and DGS). The Chair is also responsible for completely all paperwork (REDCap SACs forms, etc) needed to record the results of the exam.

G. Role of Thesis Advisory Committee

It is the responsibility of the Thesis Advisory Committee to assure that the requirements of the department and the Graduate School are met by the candidate for the degree. In addition to reviewing the scientific progress of the student, the committee should be generally concerned with the student's
development during the program. Students should feel free to seek help from any member of the Thesis Advisory Committee.

After the Phase I qualifying exam, the Thesis Advisory Committee should meet with the student at a time about midway between the Phase I and Phase II qualifying exams to review progress. Following successful completion of Phase II of the Qualifying Exam, the Thesis Advisory Committee should meet with the student and Advisor at least every 6 months to review progress and to assist the student in planning the direction of research. The DGS should be notified of the committee meetings. Prior to these meetings, the student will develop a progress report for the period of time since the last meeting. This report should be given to each committee member at least one week prior to the meeting. The Chair of the Thesis Advisory Committee will use the Student Advisory Committee report form (available through RedCap) to record the results of each meeting. The student will make arrangements through RedCap and invite, via Redcap, the Committee Chair to access the form. The report form should be approved by the student after discussion with the committee Chair. In addition, the Chair should provide a letter to the applicant detailing the results of the meeting. After discussion with the committee chair, the student should prepare a draft for this letter that the Committee Chair will critique and edit as necessary. The final letter should be agreed upon by all committee members before being sent to the student. Copies of the letter should be sent to each member of the Thesis Advisory Committee and Mentor. Copies of the report and letter also must be filed (via RedCap) with the Program Manager and copies sent to the DGS. This procedure will help maintain open communication between student, thesis advisor, DGS, and the Committee. If a student receives two unsatisfactory reports, they must schedule a meeting with the DGS to discuss the situation.

H. Role of the Mentor During Phase I Exam, Phase II Exam, and Dissertation Defense

Mentors provide a unique perspective on the student and their research. Their participation in committee meetings is crucial. However, in the Phase I and Phase II examinations as well as at the final examination, the student must perform unaided and unhindered. Consequently, mentors are not allowed to participate in the examinations nor in the subsequent deliberations concerning the student’s performance, unless directly called upon by the committee chair to provide clarification or advice.

I. Journal Club and Research Presentations

Written and oral communication are the key methods by which scientists communicate their work and excellent communication skills are critical to scientific progress and advancement of one's career in science. For that reason, MPI students are required to attend the programs MPT and journal clubs each semester they are in the program. MPI students are expected to actively participate in discussion during these sessions and also to present. Updated attendance records and evaluation of performance and participation will be provided to a student's Thesis Advisory Committee prior to each scheduled meeting of the committee and will be included as part of the Committee's overall assessment of the student's progress.

J. Conflict resolution

It is recognized that there may exist scientific or other issues that interfere with the student’s progress or with the mentor-student relationship. The student may feel that his/her academic progress is being limited in some way or is being unfairly evaluated; that his/her intellectual contributions are not being fairly
acknowledged; or that another type of interpersonal conflict exists. Students have several avenues available to them to achieve resolution of such concerns. However, the DGS is always available to discuss an issue. For students who already have a thesis advisory committee are encouraged to discuss scientific concerns with the chair or members of that committee. In addition, students are always free to discuss concerns with the Division Chief.

The counseling personnel in the BRET office or the Student Care Network are also reasonable avenues to gain advice on resolving conflicts. Students should communicate any such concerns with the appropriate persons while the problems are still in their early stages. If confidentiality is required, the student is advised to consult with the counseling personnel at the Student Care Network (https://wp0.vanderbilt.edu/studentcarenetwork/helping-others/)

It is the intention of the MPI program to provide a safe, understanding, and nurturing environment. Students should not hesitate to bring forward issues of sexual harassment or discrimination of any kind to the attention of their mentor or the MPI program leadership. However, please realize that faculty and staff are not confidential sources. They are required by law to report any information they have about harassment, assault or discrimination. On the other hand, the Professional Counselors and Project Safe Staff ARE confidential sources and can provide advice and direct you to other resources. Information on Project Safe is available at:

https://wp0.vanderbilt.edu/projectsafe/

K. Thesis

Preparation

The Thesis Advisory Committee, in consultation with the student, the thesis advisor, and the DGS, will determine when the student has completed the requirements for the dissertation research and is prepared to write the thesis. Since the generation of original knowledge and publication of this knowledge is felt to be an integral part of graduate education, the student cannot defend the thesis until at least one first-authored manuscript describing original work has been accepted for publication by a refereed journal. At the discretion of the dissertation committee, a co-first author paper is acceptable for meeting this requirement as long as the committee is convinced that the student has contributed intellectually in a substantial way to the design of experiments, analysis of data and the writing of the manuscript, in addition to performing the experiments. In deliberating whether a co-first author paper will be accepted for meeting the first authorship requirement, the committee should keep in mind that first authorship is only one of several guides they should consider in determining whether the student has completed a body of work that reflects independent scholarship signifying that the student is ready for their next step towards an independent career in science.

The student should obtain the document (http://www.vanderbilt.edu/gradschool/form_locator/) "Instructions for the Preparation of Theses and Dissertations" from the DGS. This describes the requirements for the writing of the thesis as dictated by the Graduate School. If further questions arise, the Graduate School office in Alumni Hall should be consulted. The format for the thesis is flexible; however, the student should obtain approval for the format from the thesis advisor, the DGS, and the Graduate School prior to writing the document. A suggested format is given below:

1. **Introduction** — Background of the problem (historical or contextual) and the rationale for the approach to the problem
2. **Methods and Materials**
3. **Results** (*en bloc* or in sections)
4. **Discussion of each section**
5. **General Discussion**
6. **Appendix** — Reprints of published work, if not incorporated into the body of the thesis.

The student must notify the DGS and the Program Manager of the Thesis Advisory Committee membership, date, time, and location of the defense at least four (4) weeks in advance of the defense date. The student must submit a copy of the thesis to each member of the committee at least two weeks prior to the final defense and examination. The student will fill out the Intent to Graduate Form and take to the program manager. The student will schedule an appointment with Liz Leis or Linda Harris to review dissertation format.

**Defense**

Graduate School rules for the formal Thesis Defense are laid out in the Graduate School Handbook. Below are the MPI-specific rules for the defense.

The defense will occur in two parts. A closed exam involving only the members of the Thesis Advisory Committee and a public exam involving a presentation of the research to the academic community. The student should contact the program manager who can help the student make arrangements for a room and send out appropriate notifications for each part of the exam.

The **closed exam** will involve evaluation of both the written thesis and the student’s ability to answer questions regarding their research. The committee must receive a completed copy of the dissertation no later than 2 weeks before the exam. Failure to submit the Thesis to the committee by the deadline may result in the exam being cancelled and rescheduled. The DGS will be the final determiner regarding whether to postpone the exam.

The committee will review the Thesis in advance of the meeting and, if significant problems exist in the written document, the exam can be postponed by a unanimous decision of the committee (excluding the mentor). A decision to postpone should be made no later than 1 week before the exam.

**Guidelines for reading and evaluating the thesis are the following:**

1. The data presented are adequate in scope and no major questions arise concerning the design of experiments employed to collect the data.
2. Introduction, Results, Discussion are not flawed to a degree that requires drastic rewriting and/or reinterpretation.
3. The thesis is well written and the presentation is sufficiently clear to allow unambiguous understanding of the principal themes.
4. Overall, the thesis as presented is acceptable as the basis for examination of the candidate.

The exam will be conducted by the members of the Thesis Advisory Committee (except the mentor). Other members of the graduate faculty may attend the exam with the approval of the DGS. The DGS will make a determination about whether a faculty members presence is warranted in consultation with the student and committee members. The visitors may not take part in the formal questioning of the candidate nor the decision regarding whether the student has passed or failed the exam. The format for
the examination will be determined by the committee but generally includes a brief oral presentation by the student followed by a question/answer period. The exam should last no longer than 2 hours. In determining whether the student has passed or failed, the committee will evaluate both the written thesis and the student’s ability to answer questions about their research. At the end of the examination, the student is asked to leave the room while the committee discusses the examination and evaluates the student's performance. The student is then informed of the results of the examination. The SACS forms may be filled out at this time but should not be submitted to the Graduate School until both portions of the exam are completed.

No earlier than 4 weeks after the successful completion of the closed exam, the student will present the public portion of the exam. This will be in the form of a standard one hour seminar on their research. The Program Manager can help make arrangements for this presentation and send out notifications. The graduate school must be notified no later than 14 days in advance of the open portion of the exam using the form available on the Graduate School website (see the Forms List appendix below)

The seminar portion of the exam is presented to the Thesis Advisory Committee and the academic public. At the conclusion of their seminar, the student will answer questions from the public and their committee members. The public will be dismissed and the committee will make a final determination of whether the student should be awarded a Ph.D. If successful, the members of the examining committee will sign the appropriate forms. The signed form should be provided to the Program Manager who will submit the forms to the Graduate School.

Final Preparation and Thesis Submission

Following the examination, the student must, with the help of the Thesis Advisor, make any necessary corrections to the thesis. It is then the responsibility of the student to submit the thesis to the Graduate School.

The following items must be submitted to the Graduate School by the deadline listed on the Intent to Graduate form:

1. One copy of the title page on 8.5 X 11 inch plain, white paper (copy paper is acceptable) with the original signatures of committee members (month, day, and year of conferral date must be listed on the title page—see selections on Intent to Graduate form).
2. One copy of the abstract on plain, white paper (copy paper is acceptable) with original signature of dissertation director. Take copy of title page and abstract to defense to get signatures.
3. One photocopy of the signed title page on plain, white copy paper.
4. ProQuest Publishing Agreement (printed submission) or ProQuest Publishing Agreement (electronic submission). Complete pages 4 & 5 only. Include page 6 if you elect to register your copyright.
5. Survey of Earned Doctorates http://sed-ncses.org. Email confirmation of completed survey to GradSEDsubmission@vanderbilt.edu.
6. Curriculum vitae. Send electronically to GradCVsubmission@vanderbilt.edu.
7. Fees: The MPI Program will pay the 25.00 Traditional Publishing fee.
One check for the total amount due should be made payable to Vanderbilt University. Cash is accepted in the exact amount only.

**Thesis or Dissertation Submission**

**Students are encouraged to submit electronically.** Printed manuscript copies are not required when electronic submission is selected.

**Electronic submission:** Revise title page with typed names of committee members, then convert document to a PDF. Name your file with your last name (for instance, Schemmer.pdf). Upload on the ETD (Electronic Theses and Dissertations) web site. There are no binding fees.

Authors determine the access to their work when creating their ETD account. Choices are listed below. The availability can be changed at a later time by the author or by a graduate school staff member, with permission from the author.

- Release immediately for access worldwide.
- Restrict to campus access only. Will be released in two years from approval date unless the Graduate School authorizes an extension.
- Restrict to campus access only. Will be released in one year from approval date unless the Graduate School authorizes an extension.
- Restrict to campus access only. Will be released in six months from approval date unless the Graduate School authorizes an extension.
- Withhold all access for patent and/or proprietary purposes. Will be released in two years from approval date unless the Graduate School authorizes an extension.
- Withhold all access for patent and/or proprietary purposes. Will be released in one year from approval date unless the Graduate School authorizes an extension.
- Withhold all access for patent and/or proprietary purposes. Will be released in six months from approval date unless the Graduate School authorizes an extension.

**Printed submission:** Two copies of the entire thesis or dissertation, printed on white, acid-free 8.5 X 11-inch paper, of at least 20-lb. weight and 25% cotton content, must be turned into the Graduate School. Copies must be sharp, clear, and free of smudges or extraneous marks. Text print must be consistently clear and in black ink. Print on one side of the page only. The use of color in graphics, figures and tables enhances detail and is encouraged.

The binding fee is $38.00. Both copies are placed in the Vanderbilt University library system. The electronic publishing fee is also required from doctoral students (Traditional or Open Access).

**L. Graduate Student Travel**

The Molecular Pathology and Immunology Graduate Program encourages all students to present at national and international meetings during their training. Dissemination of research findings and engagement with scientific peers is a professional obligation of being a research scientist.
In order to facilitate student travel, the BRET office has developed guidelines to help students navigate the process of planning a trip and getting reimbursed for the expenses associated with the travel. Students in MPI are expected to follow these guidelines. By following these expectations and guidelines, students’ needs will be met in the most efficient manner. Aaron Howard aaron.w.howard@vanderbilt.edu in the BRET office is the travel coordinator for Molecular Pathology and Immunology Graduate students. Please read the student travel guidelines before contacting Aaron. Here is the link https://medschool.vanderbilt.edu/bret/guidelines-student-travel.

Graduate School Travel Grant

Students are encouraged to present their research at major regional, national, and international conferences. After completing at least one academic year at Vanderbilt, students may apply for a travel grant from the Graduate School for up to $500 per budget year (July 1-June 30) for domestic or international travel. Students are allowed a total of three travel grants during their entire tenure at Vanderbilt.
Molecular Pathology and Immunology
Committee Evaluation

Date: __________________________________________

Student: ________________________________________ Advisor: ______________________________________

COMMITTEE MEMBERS

<table>
<thead>
<tr>
<th>Committee Member 1</th>
<th>Committee Member 2</th>
</tr>
</thead>
</table>

Verbal Communication
Written Communication
Laboratory Skills and Techniques
Attention to Detail
Ability to Organize Scientific Data
Familiarity with Research Literature
Self Reliance
Departmental Participation
Critical Thinking Skills
Progress since last meeting
Understanding of Responsible Conduct in Research

RATINGS:

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Outstanding - exceeds expectations</td>
</tr>
<tr>
<td>2</td>
<td>Very good - meets expectations</td>
</tr>
<tr>
<td>3</td>
<td>Acceptable - some improvements recommended</td>
</tr>
<tr>
<td>4</td>
<td>Unsatisfactory - significant improvement required</td>
</tr>
</tbody>
</table>

RCR Issues Discussed (Check all that apply)

- Data Acquisition, Management, Sharing and Ownership
- Conflict of Interest and Commitment
- Human Subjects
- Animal Welfare
- Research Misconduct
- Publication Practices and Responsible Authorship
- Mentor/Trainee Responsibilities
- Peer Review
- Collaborative Science

The Committee finds that the overall progress is:

- [ ] OUTSTANDING
- [ ] VERY GOOD
- [ ] ACCEPTABLE
- [ ] UNSATISFACTORY

Next Meeting in ___3 months ___6 months ___9 months ___ Other (specify)

The CMP Program strongly suggests a meeting every six (6) months, unless there is a valid reason for more or less frequent meeting. A summary of the meeting will be prepared by the Chair of the committee and distributed to the student, mentor, committee, DGS, and CMP Graduate Program Manager.

The following individuals have read and understand the comments on this form:

Committee Chair Signature: ________________________________

Student Signature: ________________________________ DGS Signature: ________________________________
V. FORMS LIST

All pertinent forms (as listed below) can be accessed via the Graduate School Website: https://gradschool.vanderbilt.edu/academics/forms_timeline.php

Registration Related Forms:
- Request for Graduate Credit Form
- Request for Independent Study Form
- Transfer credit worksheet
- Permission to audit form

Intent to Graduate Forms:
- Intent to Graduate Form, December
- Intent to Graduate Form, May
- Intent to Graduate Form, August

Ph.D. Committee, Qualifying Exam, and Dissertation Defense forms:
- Dissertation Defense Results Form
- Dissertation Enhancement Grant Application
- Qualifying Exam Results Form
- Request to Appoint Ph.D. Committee Form
- Request to Change Ph.D. Committee Form
- Request to Schedule Dissertation Defense Form — Must be submitted to the Graduate School at least two weeks before date of defense.
- Request to Schedule Qualifying Exam Form — Must be submitted to the Graduate School at least two weeks before date of exam.

Forms for Faculty:
- Petition for Change of Grade Form
- Request for Change in Graduate School Curriculum Form
- Submission of Final Grade for Temporary or Missing Grade Form

Travel and Exchange Programs:
- Free University of Berlin Exchange Application
- Graduate Student Travel Grant Application
VI. Graduate School Policy on Parental Leave (October 2009)

**Eligibility:**

All students enrolled full-time in the Graduate School and supported by funding from either internal or external sources are covered by this policy. This includes students with funding through stipends, such as training grants or service-free fellowships, and students compensated for services, such as teaching assistants or research assistants. Students supported by external funding sources may be subject to additional rules of the granting agency regarding parental leave. Students are not employees and thus are not subject to the provisions of the Family and Medical Leave Act (FMLA).

**Period of Leave:**

Prior to and/or following childbirth or adoption of an infant, the primary caregiver (whether mother or father) will be allowed to take six weeks of parental leave. During this period, the student’s current stipend, and, if applicable, funding for health insurance and tuition, will be continued without interruption. The student’s enrollment status will be continued during this period, as well.

**Limitations:**

If both parents are Vanderbilt graduate students, only one may take parental leave. The parental leave provided by this policy may be taken during the semester in which the child is born or adopted, or during any subsequent semester that begins no later than six months after the birth or adoption.

**Advance notice and approval:**

The student must request a parental leave from her or his departmental chair, through the Director of Graduate Studies (DGS), at least three months prior to the beginning of the anticipated leave or, in the case of adoption, as soon as the adoption is confirmed. The request must be made in writing and, once approved by the department chair and DGS, forwarded to the Graduate School. Students should also make appropriate arrangements as needed with their course instructors to make up any missed coursework during the leave period.

**Documentation upon return:**

As soon as possible, the student must provide her or his DGS with (a) a copy of a birth certificate or, (b) in the case of adoption, written certification of child adoption from the adoption agency.

**Extended leave:**

Students who wish or need to take a longer period of leave, without continuation of funding, may request a leave of absence for up to one year through the established policy of the Graduate School. Graduate students who are not receiving funding through Vanderbilt should request a leave of absence for childbirth or adoption if they anticipate an interruption in progress toward their degree.

This policy is applicable to all students enrolled in the Graduate School and establishes minimum standards for parental leave for graduate students. Departments may offer greater accommodations as are warranted by the individual circumstances of the student.