

GRADUATE PROGRAM IN LIFE SCIENCES

Molecular Microbiology & Immunology



2021

PhD Graduate Student Guidelines

This document is not a contract and all information is subject to change at any time at the sole discretion of the Program.

Welcome to the Molecular Microbiology and Immunology (MMI) Graduate Program! We hope that you are excited to begin your graduate career with us. The MMI leadership are here to help guide you through the program and support your training towards earning your doctoral degree. Program Director, Dr. Bret Hassel and Program Coordinator, Dr. Heather Ezelle, are always available for student concerns and provide an environment of scholarship, collaboration, and community within the program. As part of the MMI, you will be learning in innovative courses, attending journal clubs, engaging with internationally known seminar speakers, presenting your research at our annual symposium, helping your fellow students at research-in-progress meetings, and conducting your own world class research.

Our program has over 80 faculty of diverse research interests. They are part of the Microbiology and Immunology Department, School of Dentistry, School of Pharmacy, Marlene and Stewart Greenebaum Comprehensive Cancer Center, Institute of Human Virology, Institute for Genome Sciences, Center for Vaccine Development and Global Health, Institute for Marine and Environmental Technology, and several other departments at the School of Medicine. In addition to maintaining their research programs, they are also leaders within their fields serving as journal editors, conference organizers, study section members, and even the President of the American Association for the Advancement of Science!

The following guidelines will provide the program requirements and rules for maintaining good standing in the MMI PhD program. You will also find the necessary forms to be submitted to document your progress. The policies stated are subject to change and you will be notified of any revisions in writing. These guidelines, in addition to the <u>Graduate Assistant Guide</u> and the <u>Graduate School Catalogue</u>, will provide the policies that govern the MMI Program.

Graduate Student Responsibilities

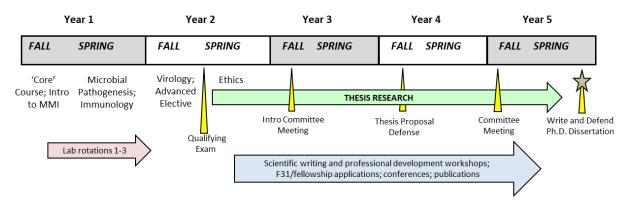
- University of Maryland Baltimore graduate students supported by Graduate Research Assistant (GRA) stipends are not permitted to hold outside employment. They may be compensated for teaching opportunities during the summer semester only.
- It is expected that students pursuing a Ph.D. in our program will attend all of their classes and required events and arrive on time except in the case of illness. If a student must miss a class, the student should email the course director or Elice Garcia-Baca for the Core Course. Her phone number is 410-706-6042 and her email is EGarcia-Baca@som.umaryland.edu. The correct person should be notified before the start of the class.
- In addition to classes, new students are also required to perform three laboratory research rotations. While taking classes, laboratory research rotations will consist of approximately 20 hours per week in the lab you have chosen. If a student is not enrolled in a course, time invested in research will be full time, approximately 40 hours a week.
- Students have the responsibility of informing their research mentor in advance if they require leave to study for an exam, appointments, etc., or if they are ill and unable to come to lab. Students that need to take leave while enrolled in a course should make arrangements and receive prior approval from the course director. Students that need to take leave during lab rotations or thesis work, need approval from their mentor. Vacation and sick leave are outlined in the Graduate Assistant Guide and lab policies should be discussed at the beginning of the rotation and when the mentor agreement is signed.
- Students must adhere to all guidelines in this handbook or future amendments.

In an effort to ensure that all Program and University mandated documentation is completed in a timely manner and that MMI student records are kept current, there is a policy entitled "Administrative Probation" in place. Under this policy, students who have not fulfilled administrative requirements such as turning in mandatory forms and documents, completing Title IX training etc., will be placed on Administrative Probation such that administrative support on the student's behalf (e.g. course registration, letters of recommendation, submission of Graduate School documents etc.) will be suspended until the outstanding matters are resolved. The Administrative Probation approach has helped to enhance accountability in other programs and we hope that it will be a rarely implemented incentive with the same effect for the MMI program.

Timeline

A general timeline is provided below for PhD students. MD/PhD students follow a slightly amended schedule beginning in either their thesis lab or last rotation in July, followed by Principles of Virology and an elective in the fall, Basic Immunology and Principles of Microbial Pathogenesis in the spring, and the qualifying exam the following summer.

Timeline of MMI Curriculum and Milestones



Seminars, journal clubs and student research presentations occur throughout the program and are not shown. The time for thesis research is not fixed but most students complete the program in five years.

Classes

Students are required to maintain a 3.0 overall GPA (B average). A "C" in any course other than the Core Course will require retaking the class. A "C" in the Core Course will result in a dismissal from the Program.

Required First Semester Courses

Core Course (GPLS 601 Section 01, 8 credits)

Microbiology and Immunology Seminar (GPLS 608 Section 03, 1 credit)

Introduction to Molecular Microbiology and Immunology (GPLS 693, 1 credit)

Required Second Semester Courses

Principles of Microbial Pathogenesis (GPLS 710, 3 credits)
Basic Immunology (GPLS 702, 4 credits)
Laboratory Rotation starts in December (GPLS 609, Section 03, 2 credits)

Microbiology and Immunology Seminar (GPLS 608 Section 03, 1 credit)

Required Third Semester Courses

Principles of Virology (GPLS 704, 3 credits)

Microbiology and Immunology Seminar (GPLS 608 Section 03, 1 credit)

and every semester thereafter until the semester before the Dissertation Defense

Pre-candidacy Research (GPLS 898, Section 03, 2 credits)

Elective Third Semester Course (required) a partial list of electives:

Advances in Immunology (GPLS 769, 2 credits)

Advanced Microbial Pathogenesis (GPLS 725, 3 credits)

Advanced Parasitology (when warranted)

Cancer Biology (GPLS 665, 3 credits)

Molecular Mechanisms of Signal Transduction (GPLS 616, 3 credits)

Molecular Epidemiology (PREV 780, 3 credits)

Infectious Disease Epidemiology (PREV 749, 3 credits)

Required Fourth Semester Course

Research Ethics (CIPP 907, 1 credit)

Additional Electives can be taken after requirements are fulfilled with mentor approval.

Laboratory Rotations Rules and Timing (GPLS 609 Section 03)

Only one MMI rotation student per laboratory is allowed at a time. Three separate laboratory rotations are required during the student's first year. A student may request a 4th rotation which can be completed in the summer or fall of 2022.

A Laboratory Rotation Form is required *before the start* of each rotation. The form should be completed with the chosen mentor. The completed and signed form is submitted to the MMI Academic Services Specialist, HH 324C.

The first laboratory rotation (2nd for Summer Bridge students) begins immediately following the completion of the Core Course and ends approximately Friday, February 25, 2022

Laboratory Rotation 2 (3rd for Summer Bridge students) begins approximately February 28, 2022 and will end on May 20, 2022.

Laboratory Rotation 3 (optional 4th for Summer Bridge students) starts approximately May 31, 2022 and will end on August 19, 2022 before the beginning of the Fall Semester.

Laboratory Summaries are due *within 3 weeks* after the end of each rotation. Summaries must be 3-4 pages in length and must have the following sections: Title, Background and Hypothesis, Approach and Results, Conclusions and Future Directions, and References. After completing the summary, attach the required cover page summary which needs to be signed by student and mentor and submit to the MMI Academic Services Specialist, HH 324C.

Core Course (GPLS 601)

Attendance is informally taken each day, however, if you begin missing classes or are constantly late it will be noted and you will be counseled by our program and/or GPILS. *If you are going to miss more than a day for illness or a required event such as the small group meetings, please notify Elice Garcia-Baca, phone 410-706-6042 or egarcia-baca@som.umaryland.edu*.

Introduction to Molecular Microbiology and Immunology (GPLS 693)

This course combines lecture and discussion to lay the foundation for advanced study of molecular microbiology and immunology. The subjects covered will complement the GPILS 601 Mechanisms in Biomedical Sciences: From Genes to Disease fall semester course, with particular focus on bacteriology, virology, immunology, parasitology, and fungal pathogenesis. Lecture will include 1) Professional Development (mentorship, funding, publishing, career paths, study approaches, and lab protocol), 2) Scientific Theory and Process, 3) History of Science, and 4) Current Topics. Lectures will include open forums for active discussion and integrated learning. This course meets once weekly and is required for all students in the Molecular Microbiology and Immunology Program.

Program Subject Courses

Class attendance is required as participation is a major component of the advanced courses. If a student is ill, an email must be sent to the course master. Course guidelines are provided in the syllabus which is provided by the course director and available on Blackboard.

Ethics Course (CIPP 907)

The Ethics Course will consist of weekly discussions during the second Spring semester. This is a required course that is graded Pass/Fail. A certificate will be awarded when the course is successfully completed which needs to be submitted to the Academic Services Specialist.

Microbiology and Immunology Department Seminar (GPLS 608)

Students are encouraged to attend Department Seminars in the GPLS 608 Seminar Series in order to fulfill their monthly Program attendance requirements (see below under Attendance Requirements). All speakers from outside the University have lunch with a small group of graduate students to discuss research, careers, and general advice. Students are strongly encouraged to take advantage of this opportunity to network with leaders in the field (lunch is provided).

Other Program Requirements

Professor Rounds

Many of the faculty who would like to host a rotation student will present their work at Professor Rounds beginning in September and ending before the end of your 1st semester. Some faculty who can fund a student but are not actively seeking a student may opt to not present here, therefore if you are interested in working with a particular faculty member, you are highly encouraged to contact them even if they did not present at Professor Rounds. Attendance is *mandatory* for all Ph.D. students but optional for MD/PhD students.

Student Research-in-Progress Seminar Series/MLM

Micro Lab Meeting (MLM) will be held every week in HSF2 341. Each student gives an informal but organized presentation about their current work. These are not "polished," conference-style presentations, but should generate discussion about lab successes and challenges – a place for receiving ideas to make projects stronger or more successful. Second year students and above are assigned a presentation date by the third year student organizers. Presenters will be contacted by the organizers at least one week ahead of their presentation and must provide a brief description of their project and the questions/problems they hope to address. Presenters should also notify their thesis committee of their presentation in advance so that they may attend. This is an excellent opportunity for committee members to be updated on your progress. These meetings are currently held on Mondays at noon. These meetings are part of the Program attendance requirements detailed below.

Journal Clubs

All second year students and above should present in one of the three journal clubs organized by the third year MMI students. These meetings are part of the Program attendance requirements detailed below.

Immunology Journal Club (IJC) – Tuesdays, 12:00p.m in HSF3 rm 6020. Students, faculty, and postdocs present current, impactful, and engaging papers for discussion. Papers should be explained with a formal Powerpoint presentation. Presenters will be contacted by the organizers at least one week ahead of their presentation and must provide a pdf of the paper to be discussed as well as a brief explanation of the paper's significance.

<u>Microbial Pathogenesis Journal Club (MPJC)</u> – Every other Thursday at noon in HSF2 rm 431. Students, faculty, and postdocs present current, impactful, and engaging papers for discussion. Papers should be explained with a formal Powerpoint presentation. Presenters will be contacted by the organizers at least one week ahead of their presentation and must provide a pdf of the paper to be discussed as well as a brief explanation of the paper's significance.

<u>Virology Journal Club (VJC)</u> – Alternating Thursdays with MPJC at noon in HSF2 rm 431. While this journal club is heavily dominated by the Frieman, Jackson, and Coughlan labs, it is open to everyone and is included amongst the Program attendance options. Presenters will be contacted by the organizers at least one week ahead of their presentation and must provide a pdf of the paper to be discussed as well as a brief explanation of the paper's significance.

<u>Institute of Human Virology Journal Club</u> – Wednesdays at 5:00 p.m. IHV 3rd Floor Lightwell, twice a month. Optional. This journal club does <u>not</u> count towards the required MMI journal club attendance guideline below.

Program Attendance Requirements

All students are required to attend the Research-in-Progress/MLM, journal clubs (JC), and/or Microbiology Dept Seminars each month. In response to many of the concerns and constraints brought to light last year, the attendance requirements have been modified to the following to provide some relief on your time and flexibility in your scheduling.

- 1st years students attend any 3 MLM/JC/Micro Dept seminars each month for the Fall semester. This will increase to 6 in the Spring.
- 2nd and 3rd year students attend any 6 MLM/JC/Micro Dept seminars each month
- 4th year+ students attend any 3 MLM/JC/Micro Dept seminars

If a student does not meet the monthly attendance minimums, a makeup assignment will be required or the student will receive a Fail for the course. Our program cannot graduate a PhD student with a Fail on their transcript.

A make-up assignment for each missed meeting consists of:

- 1. Choose one of the speakers/paper authors that was missed for every absence.
- 2. Read 3 papers by said speaker/author
- 3. Write a 3 to 4 page, double-spaced paper summarizing what was read and demonstrating that the material was understood.
- 4. Paper is due the same semester as the missed seminars or a due date set by the Dr. Ezelle or Dr. Hassel.

Graduate Research Conference (GRC)

Each year the Graduate Student Association sponsors the Graduate Research Conference in March. This is a chance for students as well as postdoctoral fellows across all of the UMB schools to enter a poster or an oral presentation of their work. Posters and presentations are judged and awarded. All Molecular Microbiology and Immunology Students are strongly encouraged to participate.

PhD Candidacy Ceremony

As part of the GRC, students who reached candidacy the year prior to the spring semester can participate in the PhD Candidacy Ceremony where their achievement is recognized by the Dean of the Graduate School. Students interested in participating must RSVP to the Graduate School.

Student Selected Seminar Speakers

Each academic year there are four student selected speakers for the Microbiology and Immunology Department's seminar series, one from each discipline, Bacteriology, Virology, Parasitology/Mycology and Immunology. The student committees are comprised of students who have passed their qualifying exams though the committee may ask for input from students that have not passed the exam but are in their final labs. These students however, will not participate in the final vote. Each committee will be convened by the previous year's student host the summer before the new academic year starts. Speaker nominees will be solicited and the student who nominates the agreed upon speaker will serve as the host. The chosen speaker must receive approval of the Program Director, Dr. Bret Hassel and seminar committee chairperson, Dr. William Jackson. Available dates should be obtained from Dr. Jackson before the speaker is invited. The student host, with the assistance of the committee, organizes the dinner with the speaker by making the reservations; inviting students to attend the dinner, making sure the State guidelines are followed for reimbursement (currently \$54 a person) and alcohol (none). The host works closely with the Microbiology and Immunology Seminar Coordinator, Ms. Jasmine Hawkins, who will make the travel and honorarium arrangements, contact suggested faculty to meet the speaker, organize the schedule, and order the lunch for the students. All students are invited to have lunch or dinner with the speaker but there will be a limit on the number of attendees – lunch attendees should be different than the dinner attendees whenever possible. The receipt for the dinner should be turned in to Olu Adewunmi, the Administrator in the Department of Microbiology and Immunology.

Graduate Student Presentations

Graduate Student Presentations are held annually in the beginning of June, thus they are commonly referred to as "June Presentations". Attendance and participation is mandatory for each student. Presentations are on a student's thesis project or first years can present on any completed laboratory rotation project. First years should contact their rotation mentor for approval. The primary purpose of these presentations is to improve students' presentations skills and construction of an abstract; it is not an evaluation of their research project. Data is not required. Fourth year students organize this activity each year in coordination with the Academic Services Specialist.

Abstracts will be due in May and are generally submitted to a shared drive established by the organizers. They will be assembled into a symposium abstract book.

Presentations are approximately 15 min for 2nd years and above, and 1st year rotation presentations are 10-12 minutes. Additional time of about 5 minutes should be allocated for questions from the audience. Modifications can be made due to COVID-19 safety restrictions.

Each student will receive written evaluations of their abstract and presentation from 2-3 non-anonymous reviewers. Reviewers are faculty members, postdoctoral fellows, and senior students who have submitted their Final Committee Nomination Form to the Graduate School.

Advisor Meetings

The Program Director has assigned a faculty member to be your academic advisor for your first year. The student and advisor should meet monthly to discuss classes, career development, rotations, mentor selection, and skills for being a successful scientist and student. The student is responsible for organizing the meetings in a timely fashion as well as returning the required form (due each semester), completed and signed, to the MMI Academic Services Specialist.

Suggested semester meeting topics, in addition to coursework, rotations, and general progression are below.

Fall 2021

November/December- introductions, background bios and interests; rotations. Feel free to discuss topics covered in the Intro to MMI course such as: how to do a rotation and choose a lab/mentor; how to learn: "Grad School Style"; the Qualifying Exam (note a full description of the exam will be provided in December of your second year).

Spring 2022

February – discuss progress in your first rotation and upcoming second rotation; MMI courses – Basic Immunology and Microbial Pathogenesis. Feel free to discuss topics covered in the Intro to MMI course such as: Grants: how/why are you paid? F31s, foundation grants etc.; how publishing works; writing a paper and responding to reviewers; negotiating issues/conflicts with colleagues

*April – discuss progress in your second rotation and upcoming third rotation; MMI courses – exam results. Feel free to discuss any of the topics above.

Summer 2022

June/July- discuss semester grades and selection of Fall elective, rotation #3, and selecting a thesis mentor. Feel free to discuss topics covered in the Intro to MMI course such as: posters/meetings; how to pick a career: Academia, Industry, Government, and Other; how to pick a postdoc lab and be a competitive applicant

Individual Development Plan (IDP)

To further support the development of graduate students in their trajectory towards independent careers, the Graduate Program in Life Sciences issued the Individual Development Plan (IDP) as a mentoring guidance document. Each student is required to complete an IDP with their mentor each year. First year students will meet with their faculty advisor to discuss this. Please turn in this completed and signed form to the MMI Academic Services Specialist when requested in the spring semester.

Academic Progress

Selecting a Thesis Mentor

Numerous considerations go into choosing a thesis mentor, including their temperament, the other lab personnel, their supervisory style, the project and more. Lab rotations are a time to explore these and decide whether the lab and mentor are a good fit for both student and mentor.

Once a student finds the right combination in a mentor and decides on a lab, they should meet with the faculty member and discuss whether they can support a student financially. The mentor must be willing and able to provide at least 2 years of support beginning 15 months (12 months for MD/PhD students) after the student begins in the program. Projects, expectations (for both parties), and lab rules (attendance, meetings etc) should also be discussed. If more than one student wants to join the lab as a thesis student at the same time, the mentor will choose the student able to join, or if the mentor has enough funding, both

students can be accepted. Having rotated first does not automatically mean someone has priority for joining the lab.

After a thesis lab is decided, the student will submit their Mentor Acceptance Form which is to be signed and returned to the MMI Academic Services Specialist. This form confirms the expectations of the mentor's financial obligation to the student and that the mentor accepts the student into their lab for their thesis work. If a mentor cannot afford to support the student for 2 years, they cannot serve as a mentor.

Further advice on picking a thesis mentor can be sought from other students, a student's first year advisor, the Program Director, or the MMI Academic Services Specialist.

Qualifying Exam, approximately mid-March 2023 (or mid-July 2022 for MD/PhD students)

The Qualifying Exam is both a written and oral exam. The written exam is a grant proposal formatted as an NIH F31 fellowship Specific Aims and Research Plan that can be based upon the student's thesis work or a non-related area. Six weeks prior to the exam date, the student must submit their Specific Aims to the Qualifying Exam Director, Dr. Vincent Bruno, for approval. If approved, the Research Plan is due to the QE Director four weeks prior to the exam. The oral exam is approximately 2 hours in length. The student's fundamental scientific knowledge and ability to interpret data, draw conclusions, formulate hypotheses and design experimental approaches is tested utilizing the written proposal as a basis for questioning, but the examination is not restricted to it. The purpose of this exam is to ensure the student's mastery of basic course material and scientific thinking. Successful completion is required for continuation in the graduate program. Only three grades are possible, Pass, Fail, and Remediation with possible re-take. At least 3 of the examining committee members must approve a passing grade. If the student does not pass a required retake exam or refuses to retake the exam, the student will be dismissed with a master's degree.

In preparation for the exam, students may devote time to studying without going to their thesis laboratories. This is typically done once the proposal is submitted and course review begins. This arrangement should be arranged with the mentor, however program leadership can be consulted. It is permissible and typical that senior post-candidacy students distribute study guides and hold "practice" oral exams. Senior students help prepare their younger peers for being tested by the faculty examination panel. The student's primary thesis mentor may also help with preparing the student for the exam. However, to ensure that all students have access to similar preparation resources, other faculty are not permitted to assist in exam preparation.

Further details are discussed at a qualifying exam pre-meeting with the exam chairperson, Dr. Vincent Bruno.

Admission to Candidacy

Admission to candidacy is applied for after passing the Qualifying Exam. The application will be completed by the MMI Academic Services Specialist; the Student will obtain their Mentor's signature and then return the form to the MMI Academic Services Specialist who will then submit it to the Graduate School.

After passing the Qualifying Exam and receiving admission to candidacy, the student's annual stipend will be increased by \$1,000.

Thesis Committee Selection and Introductory Meeting

A thesis committee consisting of at least five faculty members is selected by the student and their mentor after passing the Qualifying exam and no later than the summer of 2022. A minimum of 3 members must have regular membership on the University of Maryland Graduate Faculty. One member must have *no* affiliation with the Molecular Microbiology and Immunology Graduate Program and should not be part of the University of Maryland Baltimore campus if possible. MD/PhD students must have a member of the MSTP Advisory Committee. After the Committee Nomination form is completed, it should be turned in to the Academic Services Specialist.

An introductory meeting of the thesis committee should take place by the end of the calendar year, 2023, for PhD students, and by October 2022 for MD/PhD students. At this meeting, the student introduces themselves and their project(s) to the committee through an oral presentation. Research may still be in the preliminary stage or multiple projects may be candidates for the final thesis work. The committee will help determine whether the research project will be a viable dissertation and what experiments are necessary to prepare the student for the thesis proposal meeting. The introductory meeting will be followed by mandatory annual meetings of the thesis committee and student. MD/PhD students must meet with their committee every six months per MSTP guidelines. The student is responsible for organizing the meeting in a timely fashion as well as providing and returning the completed, signed form to the Academic Services Specialist.

Proposal Defense Guidelines

The Proposal Defense is intended to allow the student to formulate a sound plan for the final phase of their PhD research project, and to have the student's thesis committee approve that plan. The student should emerge from this meeting with clear goals for the research plan, allowing for possible alternative approaches if necessary. This is a formal exam in which the student must demonstrate strong knowledge of the background material and relevant literature, and clear understanding of other aspects of the project and proposal.

- 1. The proposal defense should take place by the end of the student's third year in the program, and no later than 12 months after the introductory thesis meeting at the latest. MD/PhD students should hold their proposal within 12 months after their qualifying exam.
- 2. The proposal document is prepared by the student with advice from the mentor
- 3. The proposal document should follow guidelines for an NRSA (NIH) F31 (Individual Student Fellowship) application:
 - a. Maximums of 1 page for the Specific Aims and 6 single line spaced pages, including figures and tables, for sections ii-iv below (excluding list of references). Sections ii-iv are the Research Strategy of an F31
 - b. Arial 11 pt font (or similar size font)
 - c. Sections headed:
 - i. Abstract and Specific Aims (0.5-1 page)
 - ii. Significance (~1-1.5 pages)
 - iii. Innovation (~0.5 pages)
 - iv. Approach (~3-4 pages))
 - v. References Cited
 - d. For content descriptions of these sections, see pages 84-86 of the NIH Research Instructions
- 4. The document should be sent electronically (with hard copy if requested) to each member of the thesis committee at least 2 weeks prior to the oral defense date. For the oral defense, the student should prepare a presentation lasting 30-45 minutes describing all aspects of the proposal this presentation file (in draft form if necessary) should be sent to the committee members at least one day before the presentation

- 5. Although the major purpose of this meeting is for the thesis committee to approve the proposed project and provide suggestions and guidance to the student, this is also an examination that the student must pass to continue in the program. The thesis committee members will ask questions throughout the presentation, testing the student's knowledge of the background material and their understanding of the project significance and approaches used, and will advise on the feasibility of the aims and research design. It is strongly suggested that, within a reasonable time, the student prepares a response to all of the committee suggestions, to be used in subsequent meetings to show that concerns by members of the committee have been properly addressed.
- 6. For the student to pass the defense, the majority of the committee members must vote to pass (3 votes for a 5-member committee, 4 votes for a 6-member committee).
- 7. If there are insufficient pass votes, the student will be given one more opportunity to revise the document (if necessary) and retake the oral proposal defense within 6 months of the first date.
- 8. The Proposal Defense Record form must be signed by the committee members and completed at the defense meeting the student then returns the form to the MMI Academic Services Specialist.
- 9. Where possible, the proposal document can be submitted as an F31 Individual Predoctoral Fellowship application to the NIH (or equivalent funding agency).
- 10. The student must meet with the thesis committee at least annually after this defense to update the committee and seek further advice (every six months for MD/PhD students).
- 11. The student may meet more frequently with individual members of the committee or the whole committee.
- 12. The thesis committee may request to meet with the student in 6, 9, or 12 months depending on the student's progress. If the thesis committee requests to meet in less than 12 months, they must indicate what concerns they had at the committee meeting and their expectations for the next meeting.

Dissertation Defense

At least six months before the Doctoral Dissertation Defense, submission of the "Nomination of Members for Final Doctoral Examination Committee" form must be completed and submitted to the Graduate School. Usually the members are the same as the Thesis Committee, however some adjustment of the committee is allowed. The student should also consult the Graduate School website for graduating students.

Students are *required* to have an accepted first author paper before setting the Defense date. This is a GPILS requirement unless special permission is granted by the Program Director. Students should also consult the Graduate School <u>website</u> for the last day to defend in any given semester in order to graduate that semester. If you will be a summer graduate, please consult the Academic Services Specialist as tuition costs must be considered for summer graduates.

Students are responsible for reserving a venue for both the public and private defense of their dissertation. The public defense is a one hour oral presentation that is open to the UMB community at which the audience is able to ask questions. Traditionally, the committee members hold their questions until the private defense immediately following. Potential public defense venues must be of a reasonable size to accommodate an audience of faculty and students. Family and friends are also welcome to attend. Potential rooms include the HSFII auditorium, Leadership Hall, Hosick Lecture Hall, HSF-3 rm 1010, various lecture halls in the School of Dentistry, and Davidge Hall. The private defense can either be in the same location or a smaller conference room. Previous policy stipulated that only one committee member could attend virtually, unless permission is given by the Dean of the Graduate School. Currently, greater latitude is given due to social distancing and minimizing travel, but the Academic Services Specialist should be consulted prior to scheduling.

At least one month before the Defense date, the student's readers are given the document for review. When the thesis is returned to the student, and at least two weeks before the defense, each reader must sign the "Certification of Completion of the Doctoral Dissertation" form. This form is then submitted to the Graduate School, 620 W. Lexington Street, 5th Floor. It can be scanned and emailed to GradInfo@umaryland.edu.

Two weeks before the dissertation defense, each member of the thesis committee must be presented with the amended document.

Also two weeks before the Defense, the student must submit the "Announcement of Doctoral Dissertation Defense" online form to the Graduate School, and provide a copy of the announcement information to the Academic Services Specialist.

Several days before the Defense, the Dean of the Graduate School will assign one of the committee members to be the Dean's representative. They will receive and be responsible for collecting the signatures of the committee, recording the final grade (pass/fail), and submitting the form to the Graduate School within two days of the Defense.

After successfully defending, the student is required to submit an electronic version of their thesis to the Graduate School through ProQuest before the deadline as detailed on their <u>website</u>. Bound copies of the completed thesis can be purchased by the student.

A checklist of these steps and the necessary links are located in Appendix 1 of the Handbook.

Doctoral Hooding Ceremony

This is held as part of the University commencement ceremonies at the end of the spring semester. All students who defended in the 3 preceding semesters (Summer, Fall, Spring) are invited to participate in the ceremony. The student's mentor and the director of the program participate in the conveyance of the doctoral hood. A reception follows for the faculty, students, and their families.

Graduation Ceremony

Students must apply to graduate at the beginning of the semester they intend to graduate. Defense and application deadlines can be found on the Graduate School <u>website</u>. This campus-wide ceremony is held the last day of the semester at the Baltimore Arena. Graduates can attend this ceremony in addition to the Doctoral Hooding Ceremony. Communications regarding the ceremony, tickets, and regalia will come from the Graduate School.

Other Opportunities

University & Community Service

For students interested in university & community service, several opportunities are available. These activities can also be noted on a student's CV, demonstrating that the student is engaged and is a valuable member of the program, university, and community at large. Below are just some of the campus service opportunities.

Teaching

We recognize that teaching experience is an important skill for MMI students on both academic and non-academic professional paths. Towards this goal, students who have successfully completed their qualifying exam have the opportunity to serve as small group preceptors in the medical school curriculum and/or teach in advanced MMI classes (e.g. Advanced Immunology). Any teaching activity requires prior approval of the student's primary research mentor and should not adversely impact their thesis research.

Opportunities for undergraduate teaching may be available at affiliated UM System and private local universities (e.g. Towson, Loyola) and MMI faculty may help identify such opportunities as requested on a case-by-case basis.

Jennifer Aumiller is the Director of the Office of Professional Development in GPILS and organizes pedagogy seminars each year. Interested students can also apply for the Collaborative Teaching Fellowship Program in conjunction with Johns Hopkins University that provides hands-on teaching experience with mentorship and coaching from faculty at local institutions. The program is 6 to 8 weeks. The program is offered at least once a year. Students must apply directly to the program and approval is needed from the mentor and Program Director.

Recruitment

All current students are needed in order for our program to attract the BEST applicants to join our Program. Each January and February, volunteers will be needed to help host applicants and be ambassadors for our program. Amongst all of the recruitment events, there are more jobs than there are students, so everyone is expected to help. Our program also hosts prospective students throughout the year and volunteers will be needed for these smaller events as well.

Select campus-wide service opportunities

Graduate Student Association (GSA, http://graduate.umaryland.edu/gsa/)

University Student Government Assoc. (USGA http://www.umaryland.edu/usga/)

Project Jump Start (https://www.umaryland.edu/pjs/)

GPILS Student Advisory Committee (SAC, https://lifesciences.umaryland.edu/current/Student-Advisory-Committee/)

GSA, USGA, and SAC all have student representatives from MMI.

Community Outreach

Public service and education are important components of professional development and many opportunities exist for students on campus.

The UMB CURE Scholars Program is a STEM education and outreach program seeking volunteers to mentor middle and high school youth from West Baltimore (https://www.umaryland.edu/cure-scholars/).

The Office of Community Engagement (https://www.umaryland.edu/oce/) is a good resource for service opportunities.

GSA, USGA, and SAC also provide volunteer opportunities throughout the year.

Resources and Assistance

The path to a doctorate is long and can be both mentally and emotionally taxing. Whether stressed from experiment challenges or conflicts in the lab, there are resources available to you. Reaching out to your fellow students, mentor, labmates, program coordinator, or director can help clarify guidelines, policies, or expectations which may be helpful. In addition, following are some resource guides and links

UMB Student Resources for Addressing Conflicts

Given the setting of laboratory research, there are several potential sources of conflict which can arise and be stressful for a graduate student. The first challenge is **identifying when these arise**. The second is to **identify resources** to seek appropriate help, so that the stress is resolved. This document is a quick summary of the various resources available for MMI students. However, realizing when situations may be eased by seeking help is important as well. It is difficult to summarize the various potential scenarios — but perhaps the most important guide should be the students own judgement. The decision to seek help should be based on the student's wellbeing — not worrying about any (if at all) impact on the lab colleague, faculty mentor, lab funding etc. etc. It should be about you.

The suggested sequence below is focused on students and is designed to address student-student, student-staff and student-faculty engagement that comprises the mainstay of student interactions. Faculty and staff follow similar but distinct steps (no addressed here).

- 1. **Try talking**: Directly addressing the source of conflict with open and sensitive dialogue is often the most effective and efficient approach to resolving any issue; however, this is not always possible due to a litany of potential conflict-specific circumstances.
- 2. **Conversation with an informal mentor/friend:** It can be confusing in the beginning, to figure out *if* what you are experiencing is "normal". Talking with someone outside your immediate circle of friends who can listen and advise you, may be a valuable. Ideally this would be a faculty member such as your pre-thesis advisor, one of your rotation supervisors, a member of your thesis committee etc.
- 3. **Conversation with supervisor**: The next step is to approach the supervisor of the person in conflict. Often this is a lab head or PI. Meetings should be scheduled when both parties are <u>not</u> time-restricted to provide sufficient time for discussion. If the topic is confidential, this should be stated at the outset. Ideally, the meeting should identify next steps towards resolution, define milestones, and schedule a follow-up to assess progress.
- 4. **Consult MMI administration**: In the event the student feels more help is required (either because steps 1-3 did not produce results OR the student is not comfortable with steps 1-3) contact the MMI Program Coordinator and Director. MMI leadership will provide suggestions, support and mediation of the issue with the key stakeholders. In addition, they can connect you to independent campus resources to address all aspects of the conflict. *Please note that you should feel comfortable with approaching step 4, even if you did not get through 1-3; this is not sequential.*
- 5. **Official channel:** While the MMI leadership will in most times make the necessary connections and advocate for you, you are able to take conflicts to the next step if necessary. The next step is to meet with <u>Dr. James Kaper</u> (Chair of the Department of Microbiology and Immunology, also the SOM Senior Associate Dean). You can email Dr. Kaper directly to make an appointment. Alternate SOM and UMB resources respectively are <u>Dr. Dudley Strickland</u>, Associate Dean for Graduate and Postdoctoral Studies and head of the GPILS program, and <u>Dr. Erin Golembewski</u>, Senior Associate Dean of the Graduate school.
- 6. **SOM offices**: Student issues that go beyond the steps outlined above typically fall into more serious offences such as Title IX violations and are addressed by dedicated officials and offices. Contact information for these resources is provided below.

Resources that can be contacted in conjunction with or after the above steps:

- The UMB Ombudsperson (https://www.umaryland.edu/ombuds/). A confidential resource that can help mediate conflict, seek solutions, and improve communication.
- Workplace Mediation Service (https://www.umaryland.edu/mediation/)
- Human Resources (https://www.umaryland.edu/hrs/)
- Graduate School Ombuds Committee (mediation between student and adviser/program; https://www.graduate.umaryland.edu/policies/)
- UMB Ethicspoint Hotline (includes Core Values, Code of Ethics, Policies or Procedures violations; https://www.umaryland.edu/umbhotline/)
- Title IX Office (https://www.umaryland.edu/titleix/)

Student Support Resources

NIH

The NIH Office of Intramural Training and Education has hosted mental health series that you can participate in or view afterwards on their youtube channel (NIH OITE), https://www.youtube.com/channel/UCOOHo OnuBxdfcsRy4INGGw

- Mental Health and Wellness Series (ongoing series, register her to participate https://www.training.nih.gov/new seminar series mental health and well-being)
 - o Suicide in the Biomedical Research Community (youtube)
 - o Mental Health and Wellness Through a Cultural Lens (youtube)
 - Managing Addictive Behaviors (youtube)
 - O Supporting the Health and Wellbeing of Biomedical Researchers (youtube)
 - o Anxiety and Anxiety Disorders (Feb 1)
 - o Depression and Depressive Disorders (March 1)
 - Executive Function (April 6)
 - Psychology of Career Decision-Making (May 3)
 - o Trauma (Individual and Group) (June 7)
 - o Autism Spectrum (July 12)
- Wellness and Stress Reduction for Scientists (all on youtube)
 - o Strategies and Tools for Dealing with Stress During the Coronavirus Pandemic
 - o Stress Management and Self-Care for Scientists: During COVID-19 and Beyond
 - o Supporting Yourself and Your Trainees During the Coronavirus Pandemic
 - o Navigating Transitions: Going Back to the Workspace
- Becoming a Resilient Scientist (all on youtube)
 - o Becoming a Resilient Scientists... Pandemic Edition
 - o Exploring Our Self-Talk: Cognitive Distortions
 - Self-Advocacy and Assertiveness
 - o Feedback Resilience
 - o Resilience in the Job Search, Work, and in Life

UMB

Wellness Hub Programs:

- Open to all students. There are several programs including Stressbusters, a nationwide program addressing stress and anxiety and providing relaxation opportunities, and live webinars on wellness including workshops such as mindful meditation.
- https://www.umaryland.edu/wellness/

Human Resources:

- The Launch Your Life program is designed to help maintain health and wellness and includes nutrition information, restorative yoga, and meditation. https://www.umaryland.edu/launch-your-life/events/
- They also have a COVID Coping Kit of resources, links to things like Launch Your Life, and webinars on topics like coping and stress. https://www.umaryland.edu/hrs/benefits/work-life-and-wellness/umb-covid-19-coping-kit/

- There's an additional resource list for parents/caregivers https://www.umaryland.edu/hrs/benefits/work-life-and-wellness/caregiving/

Student Counseling Center (https://www.umaryland.edu/counseling/):

- Crisis Support Line is available 24/7 at 410-328-8404, then press 7
- Appointments can be scheduled by calling 410-328-8404, then press 3. The SCC offers ongoing counseling services or referrals.
- Mental Health and COVID-19 resource page: https://www.umaryland.edu/counseling/mental-health-and-covid-19/
- Self Care and Social Distancing Webinar with links and advice on coping: https://www.umaryland.edu/counseling/mental-health-and-covid-19/self-care-during-social-distancing/
- Anxiety Toolbox Series 1 is a psychosocial educational session on stress and anxiety management being offered on February 9th. Other sessions will be offered during the spring semester. https://umbconnect.umaryland.edu/event/6658746

Other counseling resources:

- BetterHelp Online Counseling App:
 - o https://www.betterhelp.com/united/
 - O This counseling service may no longer be covered by the student health insurance, but does have sliding scale financial assistance. They offer ongoing text/call/video sessions with flexible hours.
- Completely free counseling for residents of Maryland, https://probonocounseling.org/
- In-network options that can be found using the behavioral provider link on the Gallagher student health insurance website.
 - https://www.gallagherstudent.com/students/providernetworks.php?idField=1356&KosterWebSID=4nsp1tocr8m310s5rq19j1tr21
 - Search directory that Gallagher links to: https://provider.liveandworkwell.com/content/laww/providersearch/en/home.html?siteId=30
 https://provider.liveandworkwell.com/content/laww/providersearch/en/home.html?siteId=30
 https://provider.liveandworkwell.com/content/laww/providersearch/en/home.html?siteId=30
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 <a href="https://provider.liveandworkwell.com/content/laww/providersearch/en/home.html?

Reference Information

Bret Hassel, PhD

Graduate Program Director, Molecular Microbiology and Immunology Associate Professor, Department of Microbiology and Immunology Greenebaum Cancer Center

> HH 348, Phone: 8-2344 bhassel@som.umaryland.edu

Heather Ezelle, PhD

Academic Program Coordinator
Molecular Microbiology and Immunology
HH Room 324C, Phone: 6-7126
hezelle@som.umaryland.edu

Elice Garcia-Baca

Program Coordinator GPILS Core course BRB 1-005, Phone: 6-4442

EGarcia-Baca@som.umaryland.edu

Celeste Gerhart

Budget Analyst Graduate School

620 W. Lexington Street 5th Floor, Phone: 6-6794

Stipend, Health Insurance & Tuition Remission will be handled by Celeste for some of you.

cgerhart@umaryland.edu

Alexandra (Ali) Squires

Budget Analyst GPILS

655 W. Baltimore Street 1st Floor, Room 1-005, Phone: 6-8114

Stipend, Health Insurance & Tuition Remission will be handled by Foyeke for some of you.

asquires@som.umaryland.edu

Jennifer Aumiller, M.Ed.

Director

Pre- and Postdoctoral Career Development, GPILS, Office of Postdoctoral Scholars
655 W. Baltimore Street, Room 4-004, Phone: 6-5490

Distributes the GPILS/OPS Career Development Newsletter, organizes workshops, and conducts career counseling

jaumiller@som.umaryland.edu

Student Counseling Center

(confidential counseling)
601 W. Lombard Street Suite 440
410-328-8404

http://www.umaryland.edu/counseling/

Student Health Services

408 W. Lombard Street between Eutaw and Paca Streets http://www.umaryland.edu/studenthealth/

Appointments 667-214-1899

To reach a doctor after hours and on weekends 667-214-1883 Castle Branch vaccination records service desk 1-888-723-4263

Graduate School Policies

https://graduate.umaryland.edu/policies/

<u>University-wide Policies</u> http://www.umaryland.edu/policies/

Interactive Campus Map

http://www.umaryland.edu/maps/

Student Resources Link

https://graduate.umaryland.edu/student-resources/

University of Maryland Graduate School

http://graduate.umaryland.edu/

Graduate School Association

https://graduate.umaryland.edu/gsa/

University of Maryland Baltimore Alerts System

Call to see if campus is closed due to snow: 410-706-UMAB (8622)

Resources for Conflict Resolution or Reporting Wrongful Behavior

The UMB Ombudsperson (https://www.umaryland.edu/ombuds/)

Workplace Mediation Service (https://www.umaryland.edu/mediation/)

Human Resources (https://www.umaryland.edu/hrs/)

Graduate School Ombuds Committee (mediation between student and adviser/program;

https://www.graduate.umaryland.edu/policies/)

UMB Ethicspoint Hotline (includes Core Values, Code of Ethics, Policies or Procedures, Research, Bias and Discrimination, Sexual Misconduct, Student Welfare, and other violations;

https://www.umaryland.edu/umbhotline/)

Title IX Office (https://www.umaryland.edu/titleix/)

<u>All students are welcome to use the MMI Common Student Area</u> <u>- The Longo Lounge (HH324)-</u>

- Computers
- Scanner
- Color Printer
- Conference Table
- Refrigerator
- Microwave
- Toaster Oven
- Keurig Coffee Maker

Appendix 1 Reference Documents

Molecular Microbiology & Immunology Ph.D. Required Curriculum Timeline

| Year 1 | Year 2 |
|------------------------------------------|-----------------------------------|
| Fall Semester (credits) | Fall Semester (credits) |
| Intro to MMI (1) | Seminar (1) |
| GPILS Core Course (8) | Laboratory Rotation/Pre-candidacy |
| Journal Clubs/MLM Presentations | Research (2) |
| | Required Elective (2 or 3) |
| | Principles of Virology (3) |
| | Journal Clubs/MLM Presentations |
| | March - Qualifying Examination |
| Spring Semester (credits) | Spring Semester (credits) |
| Seminar (1) | Seminar (1) |
| Laboratory Rotation (2) | Dissertation Research (2) |
| Principles of Microbial Pathogenesis (3) | Ethics – (1) |
| Basic Immunology (4) | Journal Clubs/MLM Presentations |
| Journal Clubs/MLM Presentations | |

| Year 3 | Year 4 | Year 5 |
|--------------------------------------|-------------------------------------------|---------------------------------|
| Fall Semester (credits) | Fall Semester (credits) | Fall Semester (credits) |
| Seminar (1) | Seminar (1) | Seminar (1) |
| Dissertation Research (2) | Dissertation Research (2) | Dissertation Research (2) |
| Journal Clubs/MLM Presentations | Journal Clubs/MLM Presentations | Journal Clubs/MLM Presentations |
| Fall: Intro Thesis Committee Meeting | No later than Fall: Dissertation Proposal | |
| | Defense | |
| Spring Semester (credits) | Spring Semester (credits) | Spring Semester (credits) |
| Seminar (1) | Seminar (1) | Dissertation Research (2) |
| Dissertation Research (2) | Dissertation Research (2) | Journal Clubs/MLM Presentations |
| Journal Clubs/MLM Presentations | Journal Clubs/MLM Presentations | |

- Spring Seminars also encompass mandatory participation in Graduate Student Presentations held each June
- See handbook guidelines for attendance requirements for JC/MLM/Seminar
- Introductory Thesis Committee Meeting to be completed by the end of the 5th semester of study
- Elective course may be chosen from the UMB Graduate Course Listing based upon the student's academic focus and strengths; approval required
- Other Elective courses can be taken with approval the Student's Dissertation Mentor

Molecular Microbiology & Immunology MD/PhD Required Curriculum Timeline

| Year 1 | Year 2 |
|------------------------------------------|---------------------------------|
| Fall Semester (credits) | Fall Semester (credits) |
| Intro to MMI (1) | Seminar (1) |
| Pre-candidacy Research (2) | Dissertation Research (2) |
| Required Elective (2 or 3) | Journal Clubs/MLM Presentations |
| Principles of Virology (3) | |
| Journal Clubs/MLM Presentations | Intro Thesis Committee Meeting |
| Spring Semester (credits) | Spring Semester (credits) |
| Seminar (1) | Seminar (1) |
| Pre-candidacy Research (2) | Dissertation Research (2) |
| Principles of Microbial Pathogenesis (3) | Ethics – (1) |
| Basic Immunology (4) | Journal Clubs/MLM Presentations |
| Journal Clubs/MLM Presentations | |
| Summer: Qualifying Exam | Dissertation Proposal Defense |

| Year 3 | Year 4 |
|---------------------------------|---------------------------------|
| Fall Semester (credits) | Fall Semester (credits) |
| Seminar (1) | Seminar (1) |
| Dissertation Research (2) | Dissertation Research (2) |
| Journal Clubs/MLM Presentations | Journal Clubs/MLM Presentations |
| Spring Semester (credits) | Spring Semester (credits) |
| Seminar (1) | Seminar (1) |
| Dissertation Research (2) | Dissertation Research (2) |
| Journal Clubs/MLM Presentations | Journal Clubs/MLM Presentations |

- Spring Seminars also encompass mandatory participation in Graduate Student Presentations held each June
- See handbook guidelines for attendance requirements for JC/MLM/Seminar
- Introductory Thesis Committee Meeting to be completed by the end of the 3rd semester
- Elective course may be chosen from the UMB Graduate Course Listing based upon the student's academic focus and strengths; approval required
- Other Elective courses can be taken with approval the Student's Dissertation Mentor



You're almost there!

PhD Graduation Checklist

| | Deadline |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Submit Nomination of Exam Committee | 6 months before defense |
| Attend Graduation Seminar | Fall Term - August Spring Term - January |
| Complete Application for Graduation in <u>SURFS</u> | Varies - see academic calendar |
| Review <u>Procedures for Examination for Doctoral</u> <u>Dissertation</u> | |
| Review <u>Thesis/Dissertation Style Guide</u> for writing your Dissertation | |
| Create Title Page - template provided on the website under Resources for <u>Graduating Students webpage</u> | |
| Submit <u>Certification of Completion</u> for the Doctoral Dissertation Certifies that you are ready to defend. It must be signed by committee chair and readers. Submit around the same time as the defense announcement. | At least two weeks before defense |
| Submit <u>Defense Announcement</u> | At least two weeks before defense |
| Submit Report of Examining Committee Form The Graduate School will original form to the assigned Dean's Representative. It indicates a Pass, Provisional Pass, or Fail. | Two DAYS after defense |
| Create & Submit Approval Sheet - template provided on the website under Resources for Graduating Students webpage | Two weeks after defense |
| Register for <u>ORCID Identifier</u> Each thesis/dissertation student must sign up for this - ORCID registration creates a unique digital identifier to link your dissertation, manuscripts, and other research activities. | Two weeks after defense |



| <u>Submit</u> Dissertation | Two weeks after defense |
|--------------------------------------------------------------------------------------------|-------------------------|
| Submit Electronic Publication Form | Two weeks after defense |
| Submit <u>Survey of Earned Doctorates</u> <u>Brochure</u> <u>Confidentiality Agreement</u> | Two weeks after defense |

If you have questions, contact your <u>Graduate Program Director</u>

Send all completed forms to gradforms@umaryland.edu

Matrix of **Graduation Deadlines**

GRADUATION STEPS & FORMS

Doctoral/PhD Students - Visit Graduation Deadlines for Timeline -

https://www.graduate.umaryland.edu/Current-Students/Information-for-Graduating-Students/Graduation-deadlines/

- a. Complete Application for Graduation in SURFS
- b. Review Procedures for Examination for Doctoral Dissertation https://www.graduate.umaryland.edu/media/Graduate-School/Documents/Procedures-for-Examination-of-the-Doctoral-Dissertation-PDF.pdf
- c. Review Thesis/Dissertation Style Guide for writing their Dissertation https://www.graduate.umaryland.edu/media/Graduate-School/Documents/Graduation-and-Degree-Certification/Electronic-Thesis-and-Dissertation-Style-Guide-2017-final.pdf
- d. Create Title Page, template provided on the website under Resources for Graduating Students
 webpage https://www.graduate.umaryland.edu/Current-Students/Information-for-Graduating-Students/
- e. Submit Nomination of Exam Committee (needs to be completed at least 6 months before they defend) https://www.graduate.umaryland.edu/media/Graduate-School/Documents/Graduation-and-Degree-Certification/doctoral committee.pdf
- f. Submit Defense Announcement https://graduate.umaryland.edu/Current-Students/Announcement-of-Defense-/ Last day to defend is July 7th
- g. Submit Certification of Completion for the Doctoral Dissertation https://www.graduate.umaryland.edu/media/Graduate-School/Documents/Certification-of-Completion-of-the-Doctoral-Dissertation.pdf This basically certifies that the student is ready to defend. It must be signed by their committee chair and readers. This is submitted around the same time as the defense announcement.
- h. Create Approval Sheet, template provided on website. It is a Word downloadable document that must be signed by Committee Chair once you defend- template provided on the website under Resources for Graduating Students webpage https://www.graduate.umaryland.edu/Current-Students/Information-for-Graduating-Students/
- Register for ORCID Identifier each thesis/dissertation student must sign up for this - https://orcid.org/ - ORCID registration creates a unique digital identifier to link your dissertation, manuscripts, and other research activities.
- j. Submit Report of Examining Committee I will send to the Dean's Representative in which it will be turned within 2 days after you defend. It indicates a Pass/Provisional Pass/Fail.
- k. Submit Dissertation in ProQuest (must be submitted within two weeks of defense) https://www.etdadmin.com/main/home?siteId=153
- I. Submit Electronic Publication Form https://www.graduate.umaryland.edu/media/Graduate-School/Documents/Graduation-and-Degree-Certification/electronic.publication.form.pdf
- m. Submit Survey of Earned Doctorates https://sed-ncses.org/login.aspx
 - i. Brochure https://www.graduate.umaryland.edu/media/Graduate- School/Documents/Academic-Progress/Survey-of-Earned-Documents-Brochure-.pdf
 - ii. Confidentiality Brochure https://www.graduate.umaryland.edu/media/Graduate-School/Documents/Academic-Progress/Survey-of-Earned-Doctorates-Confidentiality-Brochure.pdf

- n. If you have questions, contact your <u>Graduate Program Director</u>
- o. Send all completed forms to gradforms@umaryland.edu
- p. Matrix of graduation deadlines https://www.graduate.umaryland.edu/Current-Students/Information-for-Graduating-Students/Graduation-deadlines/

Appendix 2 Forms



Graduate Program in Life Sciences

Individual Development Plan (IDP) University of Maryland SOM Pre-Candidacy Student

| Name | Date: |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Advisor: | Program: Molecular Microbiology & Immunology |
| The Graduate Program in Life Sciences is committed graduate students. To further support the developme independent careers, the Graduate Program in Life Sciences is committed graduate students. To further support the developme independent careers, the Graduate Program in Life Sciences is committed graduate students. | ciences is pleased to provide the Individual |
| The specific goals of the review process are to: Identify the graduate student's goals to prome Identify graduate student's professional deve Help ensure graduate student's expectations program | |
| Instructions Graduate students and faculty advisors should comshould complete Section B to bring with them to their both parties should discuss the graduate student's resensure that the graduate student and the faculty advisors | meeting with the faculty advisor. During this meeting, sponses to the career development section and also |
| Part A completed by graduate student and f | aculty advisor |
| Plans for upcoming year | |
| 1. Research Interests | |
| | |
| 2. Courses Required for 1st Year Students | |
| 1st Semester – Core Course, Lab Rotation (v | vinter), Seminar |
| 2nd Semester – Basic Immunology, Microbia | l Pathogenesis, Lab Rotation, Seminar |
| 3rd Semester – Virology, Laboratory Rotation | on, Seminar, Elective |

Attending: Student Seminar Series _____ Journal Club (which ones) _

| Mentor name Rotation dates Plans for improving scientific writing and oral presently Anticipated meeting and workshop attendance in the | Project title |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| ny) | ntation skills in the upcoming yea |
| ıy) | ntation skills in the upcoming yea |
| ny) | ntation skills in the upcoming yea |
| ny) | ntation skills in the upcoming yea |
| ny) | ntation skills in the upcoming yea |
| ny) | ntation skills in the upcoming yea |
| ny) | ntation skills in the upcoming yea |
| Anticipated meeting and workshop attendance in the | |
| | upcoming year |
| Which professional societies are you a member of? O | or which ones would you like to joi |
| | |
| | |
| | |
| Part B. Professional Development Goals for the Upcom | ing Year |
| (completed by graduate student) | g 20a2 |
| (11 1 1111 1, 3 1111 1111 11, | |
| rofessional Development Goals for the Upo | coming Year |
| reconstruct beverapment occurs for the ope | Joining 1 can |
| | |
| Current career goal (s) Please indicate short, mid an | d long term goals. |
| . Current career goal (s) Please indicate short, mid an | d long term goals. |
| . Current career goal (s) Please indicate short, mid an | d long term goals. |
| . Current career goal (s) Please indicate short, mid an | d long term goals. |
| Current career goal (s) Please indicate short, mid an y signing this form, both parties confirm that they have discubits form does not constitute a binding contractual agreement. | ussed all items outlined in the docume |
| y signing this form, both parties confirm that they have discu his form does not constitute a binding contractual agreemer | ussed all items outlined in the docume |
| y signing this form, both parties confirm that they have discu | ussed all items outlined in the document between both parties. |
| v signing this form, both parties confirm that they have discu his form does not constitute a binding contractual agreemen rudent's Signature | ussed all items outlined in the document between both parties. Date |
| y signing this form, both parties confirm that they have discu his form does not constitute a binding contractual agreemer | ussed all items outlined in the document between both parties. |
| v signing this form, both parties confirm that they have discu his form does not constitute a binding contractual agreemen udent's Signature | ussed all items outlined in the document between both parties. Date |

A

graduate students and/or faculty advisors to provide additional guidance in preparing this document. For additional information, please contact at jaumiller@som.umaryland.edu.

 $More\ information\ regarding\ IDPs\ are\ available\ through\ FASEB\ and\ Science\ Careers.\ These\ materials\ are$ available at: http://opa.faseb.org/pages/PolicyIssues/training_links.htm; http://myidp.sciencecareers.org



Individual Development Plan (IDP) for University of Maryland School of Medicine PhD Candidate Graduate Students

Name of Graduate Student: Review Date:

Mentor: Program: Molecular Microbiology & Immunology

Start date in lab: Anticipated end date:

Primary funding source for student stipend (include Activity and Institute Code for NIH grants, i.e. AI R01):

The Graduate Program in Life Sciences is committed to providing a top-tier research training environment for graduate students. To further support the development of graduate students in their trajectory towards independent careers, the Graduate Program in Life Sciences is pleased to provide the Individual Development Plan (IDP) as a mentoring guidance document. Once completed, please turn in to your program administrator.

Goals:

- · Provide constructive feedback to trainees regarding their progress during the past year.
- · Identify trainee's short-term research project goals to promote enhanced productivity.
- · Identify trainee's professional development needs, long term goals and foster career growth.
- · Help ensure trainee's expectations and goals are aligned with those of the faculty advisor.

Instructions

Graduate Students should complete Section A and provide their complete responses to their faculty mentor prior to the scheduled review meeting. During this review meeting, both parties will discuss the graduate student's responses. **Faculty Mentors** will provide Section B. This is designed to elicit feedback on the student's overall performance as well as targeted areas for improvement.

Part A (completed by Graduate Student)

SUMMARY OF YOUR RESEARCH PROJECT

<u>Initial IDP</u>: Briefly describe the aims and experimental approaches of your research project. What is the significance of the research? Are collaborations or use of specialized resources/cores anticipated? If yes, indicate formal arrangements. (1/2 page sufficient)

OR

Annual IDP: Briefly summarize your research project and major accomplishments in the past 12 months

| 2. What new skills and education/train project and your professional development | | rch areas would enha | nce your |
|----------------------------------------------------------------------------------|--------------------|--------------------------|-----------|
| | | | |
| | | | |
| | | | |
| 3. CV should be included. | | | |
| 4. Selection of Thesis Committee – <i>if yo the members here.</i>) | u have selected yo | ur thesis committee, ple | ease list |
| Thesis Committee Member Name | Department | Graduate Faculty Status | |
| | | | |
| | | | |
| | | | _ |
| | | | _ |
| | | | _ |
| | | | |
| PLANS FOR COMING YEAR | | | |
| 1. List research project goals | | | |
| | | | |
| | | | |
| 2. Scholarship or other funding applica | itions planned for | the upcoming year | |
| | | | |
| | | | |
| | | | |
| 3. Potential collaborations in the comin | ng year, if approp | riate | |

| 4. Plans for improving scientific writing and oral pre Brief outline of accumulating results toward a resear coming year. | | | | | _ | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------|-------|-------------------|----------|----------|---|--|
| 5. Which professional societies are you a member or6. Which of the following workshops and seminars of | | | | | | | | |
| groups on campus have you attended or do you plan t | | - | | | , . | | | |
| | 7 | ?es | 1 | Plan | | | | |
| NRSA Workshop | | | | | | | | |
| Getting your research published | | | | | | | | |
| Presenting your research | <u> </u> | | LL | | | | | |
| Scientific Leadership and Project Management | | | | | | | | |
| Networking | | | | | | | | |
| Writing a CV or resume | | | | | | | | |
| Individual consultation | | | | | | | | |
| "Careers in Science" seminar | | | | | | | | |
| Other | | | | | | | | |
| Other | | | | | | | | |
| CURRENT CAREER GOALS List your primary career goal and several alternatives if completion/graduation, what are your plans for your nexexplored at http://myidp.sciencecareers.org) | | - | | | | s may be | € | |
| Signature of Faculty Mentor | scu | ssed a | all i | _ Date tems ou | tlined i | n the | | |

Part B: (completed by the Faculty Mentor)

Please summarize the following points:

- Research project progress.
- Trainee's strengths.
- Trainee's capabilities and performance needing improvement.
- Comment on the Graduate Trainee's supervisory and/or group management skills, oral and written communication skills, and participation in group meetings and seminars.
- Additional major points discussed during the IDP meeting

Additional topics that may be addressed below:

- Is the Graduate Trainee's career development on-track?
- What skills should the trainee improve or acquire in order to advance his/her career?
- If performance has been unsatisfactory, what are the specific goals that the trainee must meet?
- How can the Graduate Program in Life Sciences as a whole or the Molecular Microbiology and Immunology Program assist in helping your trainee achieve his/her overall goals?

| Signature of Graduate Trainee | Date |
|-------------------------------------------------------------------------------------------------------------------------------|------|
| Signature of Faculty Mentor | Date |
| By signing this form, both parties confirm that they have discuss does not constitute a binding contractual agreement between | |
| Signature of Program Director | Date |

For assistance/guidance, please contact GPILS Director of Career Development: jaumiller@som.umaryland.edu.

Additional resources and discussion regarding IDPs are available widely, including via FASEB and Science Careers, e.g.:

http://www.faseb.org/portals/2/pdfs/opa/idp.pdf http://myidp.sciencecareers.org

SUGGESTIONS TO IMPROVE IDP PROCESS AND FORMS

We would like to improve the IDP process and forms continuously. We would appreciate your constructive suggestions, which will be treated confidentially. If you prefer, please provide written or oral suggestions separately to Jennifer Aumiller jaumiller@som.umaryland.edu.

Student Advisement Record

| Otrodo ot | Of and and ID Alamaham |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Student: | Student ID Number: |
| Advisor: | |
| | (Print Name) |
| | |
| | Summer Bridge Rotation (if attended) |
| | (II attended) |
| 1 st Labora | ntory Rotation Mentor: |
| What was your opinion | on of the Summer Bridge Course? : |
| | |
| | |
| | Semester 1 Fall YR1 |
| | Fall Coursework: GPLS 601 Core Course, GPLS 608 Seminar, Intro to MMI |
| 1 st Laboı | atory Rotation Mentor: |
| | - |
| Please feel free to re | view the following items from the Intro to MMI course in your discussions this semester: |
| Rotation basics: c | |
| Rotation basics: c | o's and don't's □Selecting a mentor □The Qualifying Exam □Learning in Grad Scho |
| Rotation basics: c | o's and don't's □Selecting a mentor □The Qualifying Exam □Learning in Grad Scho |
| Rotation basics: c | o's and don't's Selecting a mentor The Qualifying Exam Learning in Grad Scho |
| Rotation basics: c | o's and don't's Selecting a mentor The Qualifying Exam Learning in Grad Scho |
| Rotation basics: c | o's and don't's Selecting a mentor The Qualifying Exam Learning in Grad Scho |
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| Rotation basics: o | o's and don't's Selecting a mentor The Qualifying Exam Learning in Grad Scho |
| Rotation basics: o | o's and don't's Selecting a mentor The Qualifying Exam Learning in Grad Schoolse rework/Advisory Comments |
| Rotation basics: o | o's and don't's Selecting a mentor The Qualifying Exam Learning in Grad Scho |
| Rotation basics: o | o's and don't's Selecting a mentor The Qualifying Exam Learning in Grad Schoorsework/Advisory Comments arch Interests comments |

Student Advisement Record

| Student: | Student ID Number: |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Advisor: | |
| Advisor:(Print | t Name) |
| | Semester 2 Spring YR1 |
| Review of Fall Grades: GPLS | S 601 Core Course Grade, GPLS 608 Seminar Grade, |
| | Intro to MMI Grade |
| Spring Coursework: GPI | LS 710 Microbial Pathogenesis, GPLS 702 Basic Immunology, |
| GI | PLS 608 Seminar, GPLS 609 Lab Rotation |
| 2 nd Laboratory Rotation I | Mentor: |
| □Writing Papers and Responses to F □Collegiality and Conflict Resolution Meeting #1 - February Assessment of Coursework/Adviso | |
| Discussion of Research Interests_ | |
| Student Feedback/Comments | |
| | |
| Meeting Date: | |
| Advisor Signature: | Student Signature: |

Semester 2 Spring YR1 Meeting #2 - April Assessment of Coursework/Advisory Comments_____ Discussion of Research Interests_____ Student Feedback/Comments_____ Meeting Date: _____ Advisor Signature:_____ Student Signature:_____

Student Advisement Record

| Student: | Student ID Number: |
|-------------------------------------|--------------------------------------------------------------|
| | |
| Advisor:(Prin | nt Name) |
| | |
| | Summer YR1 |
| | |
| | 710 Microbial Pathogenesis, Grade: GPLS 702 Basic Immunology |
| Grade: GPLS 608 | Seminar, Grade: GPLS 609 Lab Rotation, Grade: |
| Fall Coursework: Elective | Course:, GPLS 704 Virology, |
| G | GPLS 608 Seminar, GPLS 609 Lab Rotation |
| 3 rd Laboratory Rotation | Mentor: |
| Thesis Me | ntor: |
| Assessment of Coursework/Adviso | ory Comments |
| Discussion of Research Interests_ | |
| | |
| Student Feedback/Comments | |
| | |
| Meeting Date: | |
| | |
| Advisor Signature: | Student Signature: |

| Today's Date | ! |
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Laboratory Rotation Form

Complete form (Project Description can be attached to this form), obtain signatures and submit form to the MMI Academic Services Specialist, HH 324C <u>before</u> the start of each rotation.

Students should be in the lab 40 hours per week unless taking classes when it is 20 hours per week

| Name: | | Student ID Num | ber: | | |
|--------------------------------------------|--------|----------------|--------|----------|----------|
| Rotation: O One O Two O Three | O Four | Semester: | O Fall | O Spring | O Summer |
| Class Schedule: | | | | | |
| Rotation Mentor: | | | | | |
| Project Hypothesis or Goal: | | | | | |
| | | | | | |
| Project Description: | | | | | |
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| | | | | | |
| Student Signature | | Date | | | |
| Mentor Signature | | Date | | | |
| Bret Hassel, PhD, Program Director Signatu | re | Date | | | |

Rotation Summary Report Cover Sheet

| Name: please print | Mentor: |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Student ID Number: | _ |
| Rotation Number: One Two Three Four | Semester: Winter Spring Summer |
| Directions: | |
| The Rotation Summary must be between 3-4 pages in length | gth and must incorporate these headings: |
| Title Background and Approach and Conclusions and Fu Referen | l Results ture Directions |
| Attach completed cover sheet to the summary. | |
| Submit form and summary to Dr. Heather Ezelle, Academic the completion of the current Laboratory Rotation. | ic Services Specialist, HH 324C <u>within 3 weeks</u> of |
| Signatures: | |
| Student | Date |
| Mentor | Date |
| Bret Hassel, PhD, Program Director | Date |



GRADUATE PROGRAM IN LIFE SCIENCES

| Student Name: | |
|---------------------------------------------------------|-------------|
| Dissertation Mentor: | Email: |
| Faculty Rank (Assistant, Associate, or Full Professor): | Department: |
| Mentor's Accountant: | Email: |

General Mentor Responsibilities

In addition to guiding your student through their dissertation research, the Molecular Microbiology and Immunology Program (MMI) requests your assistance in several additional aspects of the student's doctoral training process. Student progression expectations are outlined in our student handbook which can be found at https://lifesciences.umaryland.edu/microbiology/.

Financial Support

As mentor, you will be expected to support the student for the duration of their studies and research. You will be responsible for securing funds to cover the student's stipend, medical insurance, and fees for the duration of their graduate career. The pre-candidacy stipend is currently \$30,000.00 per year and \$31,000.00 following admission to candidacy.

- You will begin funding your student on ______. This will include your student's stipend, health insurance, and registration fees. Your accountant will need to provide Alexandra Squires (asquires@som.umaryland.edu) with the funding account information from which the student's stipend will be covered. Alexandra will contact you to complete a Memo of Commitment concerning the financial arrangements
- Please note that the account information will also be required on the student's
 tuition remission application each fall and spring semester, though the account
 will not be charged as the student will be supported through the employee pool.
 The student will complete the tuition remission application online which will then
 be routed to the appropriate administrator for approval.
- An internal payment form should be completed by your accountant to pay for the student's health insurance and registration fees for each fall and spring semester.
 Your student will submit the billing documents to either you or your accountant.
- If a circumstance arises in which the student will be best served by leaving the laboratory, the departure and conditions must be agreed upon by the Program Director and GPILS Leadership. If the student needs to find a new mentor to continue in the program, the current mentor will be responsible for the student's stipend, health insurance, and fees for a time determined by the Program Director and GPILS Leadership, but not to exceed three months.
- In order to accept a student into their lab, it is GPILS policy that the mentor has secure funding to support the student for at least two years after the student passes their



- qualifying exam. In the unlikely event the mentor will be temporarily unable to meet this obligation, the program will assist in finding an alternative funding source.
- Nearing the student's dissertation defense, written notification of the student's term date/last day of work must be received by Dr. Heather Ezelle and Alexandra Squires no later than two weeks prior to the anticipated end date.

GRA Information

| GRA's start date: | Mentor funding begins 15 months (PhD)/12 months (MD/PhD) |
|----------------------|------------------------------------------------------------------------|
| | after GRA's start in the program. If a student passes their qualifying |
| | exam during the initial GPILS-supported GRA period, the date of the |
| | exam marks the end of GPILS funding and the GRA's start on mentor's |
| | funds.: |
| July 1 st | October 1 st |
| September 1st | December 1 st |

| Expenses supported by mentor* | Details |
|-------------------------------|---------------------------------------------------------|
| | City and the county of 20,000,000 are and the county |
| Stipend | Stipend is currently \$30,000.00 pre-candidacy and |
| | increases to \$31,000.00 once admitted to candidacy. |
| | This amount is subject to change. |
| Tuition Remission | It is the student's responsibility to apply for tuition |
| | remission each fall and spring. You or your accountant |
| | may be contacted for a funding account number as part |
| | of the documentation, but the account will not be |
| | charged. |
| Health Insurance | Current cost of student health insurance per semester |
| | is \$2346.00. Current cost of accident insurance is |
| | \$15.00 per semester. |
| Auxiliary Fees | Link to current fee amounts: |
| | http://www.umaryland.edu/media/umb/af/sa/grad.pdf |
| Dental Insurance (optional) | For more information: |
| | https://www.umaryland.edu/studenthealth/university- |
| | administered-insurance-plans/ |
| Vision Insurance (optional) | For more information: |
| | https://www.umaryland.edu/studenthealth/university- |
| | administered-insurance-plans/ |

^{*} If the student is supported by a T32 training grant: 1) The mentor may be required to supplement the stipend (using non-federal funds) in order to achieve parity with GPILS stipend levels. 2) The training grant pays a percentage of the tuition and the remainder is remitted through the mentor's department or through the department in which the T32 is housed. 3) The training grant may cover a portion of the cost of health insurance and fees. Consult the funding administrator of the training grant for further guidance.

Current Mentoring Status

| carrent wentering 5 | | | T 3 | | . 1 | | 1.7 | , | |
|---------------------|----------------------------------------|--------|-------|-------|------------------|-------|-------|-----|-----------------------------------------|
| | Current Number of Students in Mentor's | | | | Notes / Comments | | | | |
| | | Lab, b | y Pro | gram, | <i>by</i> Ye | ar of | Study | - | Notes/ Comments (Indicate Number of MD/ |
| | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | PhD's if Applicable) |
| Biochemistry & | | | | | | | | | |
| Molecular Biology | | | | | | | | | |
| Epidemiology & | | | | | | | | | |
| Human Genetics | | | | | | | | | |
| Gerontology | | | | | | | | | |
| Molecular | | | | | | | | | |
| Medicine | | | | | | | | | |
| Mol. Microbiology | | | | | | | | | |
| & Immunology | | | | | | | | | |
| Neuroscience | | | | | | | | | |
| Physical Rehab. | | | | | | | | | |
| Science | | | | | | | | | |
| List number of | | | | | | | | | |
| Postdocs, Techs, or | | | | | | | | | |
| other paid | | | | | | | | | |
| employees in | | | | | | | | | |
| Mentor's lab | | | | | | | | | |

Faculty Mentoring Funding Status

CURRENT FUNDING

| Award Name | Award Number | Funding Agency | Start Date | End Date | Direct costs |
|------------|-----------------|-------------------|---------------|-------------|--------------|
| | | | | | |
| | | | | | |
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GRANTS PENDING REVIEW

| Award Name | Award Number | Funding Agency | Start Date | End Date | Direct costs |
|------------|-----------------|-------------------|---------------|-------------|--------------|
| | | | | | |
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<u>Note:</u> Should the faculty mentor encounter a lapse in research funding and be unable to support his/her graduate student, the Department, Center or Program agrees to work with GPILS to cost-share bridge funding related to the PhD student's financial support and training.

Fellowships

MMI strongly encourages all students to apply for individual fellowships from federal and/or private sources. In addition to reducing the mentor's financial burden, the process of applying for a fellowship, receiving feedback and potentially being awarded funding for dissertation research provides an important experience for our students. It is anticipated that the student's Thesis Proposal will provide the basis for an external grant application.

Dissertation and Thesis Advisory Committee

You, as the mentor, along with the Thesis Advisory Committee, are primarily responsible for guiding the student's dissertation research. Please review the following guidelines for you and the committee:

- The Thesis Advisory Committee should be composed of faculty members who have the necessary expertise to assist you and your student in the design and execution of the dissertation research. Specific committee composition requirements are outlined in the handbook.
- In order to take full advantage of the committee's expertise, the Thesis Advisory Committee is expected to meet with the student a minimum of once per year unless the Committee deems more frequent meetings necessary. In addition to providing a forum for the committee to offer guidance to the student, these meetings create an excellent opportunity for the faculty to assist the student in professional development and for the student to train in oral presentation of their research results. Students will be required to track progress and submit a form after each meeting.
- Students are required to assemble their Thesis Advisory Committee and hold an introductory meeting before December of the year of their qualifying exam. Within 12 months following their introductory meeting, the student must prepare a written Thesis Proposal for review by their Committee after collecting sufficient data in the laboratory to support the feasibility of his/her thesis. The Thesis Proposal includes a written document formatted as a NIH F31 fellowship application and must be defended

Program Activities

Although students are expected to spend most of their time and efforts conducting research, it is essential that they continue to keep abreast of progress in the field. For this reason, it is imperative that students attend and actively participate in the MMI Program seminars, journal clubs and research-in-progress presentations (Micro Lab Meeting), as well as in other appropriate career development activities. Attendance requirements are outlined in the student handbook. You are encouraged to consult the MMI program handbook periodically including the student progression timeline. Feel free to contact the Program Director or Coordinator with suggestions for improvement, for clarification on expectations of students, or for any other assistance you may require.

The success of our training program ultimately depends on the quality of mentoring provided by our faculty. The MMI Program and its leadership will extend all possible assistance to you in this important process.

The above form is to be completed and then reviewed by the Graduate Program Faculty Director and the Faculty/Mentor's Department (or Program/Center) Chair (or Director). The signatures below acknowledge the information provided is correct and signify agreement that the faculty mentor in question should be permitted to take a new student into their laboratory for completion of their dissertation research.

| Faculty-Mentor Name | Signature | Date |
|------------------------------------|-----------|------|
| | | |
| | | |
| Chairperson or Director Name | Signature | Date |
| | | |
| | | |
| Funding Administrator Name | Signature | Date |
| | | |
| | | |
| GPILS Program Director Name | Signature | Date |
| Bret Hassel, PhD | | |
| | | |

Qualifying Exam Record

The Qualifying Exam consists of two parts: 1) a research grant proposal written in NIH F31 format (without budget etc.) on a subject of the student's choosing, including their proposed dissertation research, and 2) a comprehensive oral examination including, but not limited to subjects in the proposal. The Qualifying Exam Committee will be composed of five faculty. Only three grades are possible for the examination: Pass, Pass with Conditions, and Fail. At least three of the five committee members must approve a passing grade. This form must bear the signatures of all examining faculty. Please return the original to Dr. Heather Ezelle, HH 324C. This document will not be distributed to the student but is a document of record.

| Student | Student ID |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Student's Mentor | Date of Qualifying Exam |
| Examination | on Committee |
| Printed Names of Committee Members | Signature of Committee Members Grade |
| | |
| | |
| | |
| The written qualifying exam research proposa | I was: Acceptable Requires Modification |
| Final grade for the Qualifying Exam: Pass | |
| Vincent Bruno Qualifying Exam Chairperson | Signature |
| (A grade of 'fail' or any remediation for a grade of 'pass with c | ions & Comments onditions' or modification to the written proposal must be described elow) |
| | |
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University of Maryland Graduate School, Baltimore

Application for Admission to PhD Candidacy

- Read the requirements for the Doctor of Philosophy degree in the Graduate School catalog
- Familiarize yourself with the specific PhD requirements established by your program
- Complete this application
- Obtain approval signatures from your primary adviser and graduate program director
- Attach your unofficial transcript printed from <u>SURFS</u> to this application; cross out courses that will not count toward this PhD_degree
- Submit this application and transcript to: gradforms@umaryland.edu or Graduate School Dean's Office, 620 W. Lexington St., Fifth floor

| Last Name: | Title | First Name |
|--------------------------------------------------------------------------|----------------|--------------------------------------------------------------|
| | □Mr. | □Ms. |
| Student ID Number: | E-mail ad | address: |
| @ | | |
| Mailing Address: | | |
| Street | | |
| | | |
| City State | | ZIP |
| | | |
| Graduate Program: | Date adm | mitted to Graduate Program: |
| | | |
| | | |
| Number of credits earned toward this PhD Degree (not including 899 |): List cours | rse(s) in which a incomplete (I) or no mark (NM) was earned: |
| | | |
| List course(s) earned at other institutions which will count towards thi | s PhD degree (| e (grade earned must be ≥B, attach official transcript): |
| | | |
| | | |

| Approval Signatures or Electronic Signatures Please type and sign | | | | |
|--------------------------------------------------------------------|--------------------------------------------------------------------------------|-------|--|--|
| Advisor: | Signature: <u>Graduate Faculty Status</u> : □ Regular □ Associate □ Special | Date: | | |
| Graduate Program Director: | Signature: | Date: | | |
| Graduate School Associate Dean: | Submit application to Graduate School Dean's Office for Signature: | Date: | | |
| Dr. Erin Golembewski | | | | |

Revised: 10/10/2019

| Today's Date | |
|--------------|--|
| | |

Nomination of Members for the Dissertation Committee

Directions:

- 1) This form is to be filed with the MMI Academic Services Specialist, at the end of the 4th semester of study.
- 2) The student selects the Dissertation Advisor. The Dissertation Advisor must be a Regular Member of the University of Maryland Baltimore Graduate Faculty, be a member of the Graduate Program in Life Sciences Molecular Microbiology and Immunology Program and be publishing in the area of the proposed dissertation research. In addition to supervising the dissertation research the Dissertation Advisor will aid the student in selecting the Dissertation Committee.
- 3) There must be a minimum of five (5) members on the Dissertation Committee (including your Mentor), of whom at least three (3) must be Regular Members of the University of Maryland Baltimore Graduate Faculty. All members must hold the doctorate degree. It is recommended that you select 6 members part of your Committee.
- 4) At least one (1) committee member must be from outside the candidate's program and preferably from *outside the University of Maryland Baltimore*, if at all possible.
- 5) The Dissertation Committee will serve as the Examining Committee for the Defense of the Dissertation Proposal and as the Doctoral Examining Committee during the final Thesis Defense.
- 6) At *least* six (6) months prior to the final Thesis Defense, the student is to file the *Nomination of Members for the Final Doctoral Examination Committee* form with both the Program and the Graduate School. The Committee can be amended before it is submitted to the Program and Graduate School.

The following individuals are nominated to serve on the Dissertation Committee of

| ion Committee Graduate Program/Department | Graduate Faculty |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Graduate Program/Department | |
| | Status* |
| | |
| | _ |
| | _ |
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| | _ |
| | _ |
| pposal Defense no later than | - |
| | Date: |
| • | oposal Defense no later than ership status can be found online: u/About/Faculty-and-Staff/Graduate-Faculty/ |

| | Today's Date | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Nomination of Mo | embers for the Dissertation Commit | tee | | |
| The student selects the Dissertation University of Maryland Baltimore Gra Molecular Microbiology and Immunol research. In addition to supervising the Selecting the Dissertation Committee There must be a minimum of five (5) least three (3) must be Regular Memmust hold the doctorate degree. It is At least one (1) committee member of the MSTP Advisory Committee. The Dissertation Committee will servand as the Doctoral Examining Common At least six (6) months prior to the fine Final Doctoral Examination Committee to the supervision of the supervisio | members on the Dissertation Committee (including ynbers of the University of Maryland Baltimore Graduat recommended that you select 6 members part of you must be from outside the candidate's program and protect all possible. At least one (1) committee member must be as the Examining Committee for the Defense of the mittee during the final Thesis Defense. It is all Thesis Defense, the student is to file the Nomination of the form with both the Program and the Graduate School of the University of the Including the form with both the Program and the Graduate School of the University of the Including | r Member of the m in Life Sciences oposed dissertation aid the student in rour Mentor), of whom at the Faculty. All members ar Committee. Referably from outside the lust also be a member of the Dissertation Proposal on of Members for the | | |
| Student's Name | Student's II | D Number | | |
| | Dissertation Committee | | | |
| Name | Graduate Program/Department | Graduate Faculty Status* | | |
| 1. Dissertation Advisor | | _ | | |
| 2. Outside Member | | | | |
| 3. Committee Member | | - | | |
| 4. Committee Member | | - | | |
| 5. Committee Member | | | | |
| 6. Committee Member | | _ | | |
| This student is expected to host their Diss | sertation Proposal Defense no later than | · | | |
| Signature of Graduate Program Director: | | Date: | | |
| | Faculty membership status can be found online: umaryland.edu/About/Faculty-and-Staff/Graduate-Faculty/ | | | |

| Today's Date: | |
|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Introductory Thesi | is Committee Record |
| Title of Th | nesis Project |
| of all present committee members. Please submit the | ng of their first year. This form must bear the signatures original or scanned form to Dr. Heather Ezelle, equested, can be distributed to each committee member. |
| Student | Student Number |
| Thesis C | Committee |
| Thesis Committee Member names PRINTED | Signatures of Thesis Committee Members Present (please note reasons for any absences on signature line) |
| Chair | |
| | |
| | |
| | |
| | Comments – Required ment if necessary) |
| The next thesis committee should be in (MD/PhD students must hold committee meetings every 6 n | , |
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| Today's Date: | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pre-Proposal Thesis | S Committee Record |
| Current Title o | f Thesis Project |
| If you missed having an Introductory Committee Meetin you <i>must</i> have a Pre-Proposal Meeting to help you stay present committee members. Please return the original 324C. Copies, if requested, can be distributed to each addresses on the reverse side for any off campus location. | on track. This form must bear the signatures of all I form to the MMI Academic Services Specialist, HH committee member. Include appropriate mailing |
| Student | Student Number |
| Thesis Co | ommittee |
| Thesis Committee Member names PRINTED | Signatures of Thesis Committee Members Present (please note reasons for any absences on signature line) |
| Chair | |
| | |
| | |
| | |
| | |
| | Comments - Required ent, if necessary) year 9 months 6 months |
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| Date of Oral Exam | e of Oral Exam Date of Written Proposal Submission | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--|--|
| Thesis Proposal Defense Record | | | | | |
| | Title of The | esis Project | | | |
| format (without budget) based on least 2 weeks later. The latter in from the Dissertation/Examining (Pass with Conditions, and Fail. A | the student's propose icludes an oral prese Committee. Only threat least three of the fires of all examining fa | o parts: a research proposal written in NIFed dissertation research and an oral examina ntation briefly summarizing the proposal and see grades are possible for the oral examinative committee members must approve a passiculty. Please return the original to Dr. Heat e Member. | tion held <i>at</i> d questions ion: Pass, sing grade. | | |
| Student | | Student ID | | | |
| | Examining | Committee | | | |
| Printed Names of Committee | ee Members | Signature of Committee Members | Grade | | |
| Mentor | | | | | |
| | | | | | |
| | <u> </u> | | | | |
| | | | | | |
| | | | | | |
| | | ons & Comments nent if necessary) | | | |
| The next thesis committee sh (MD/PhD students must hold committed) | nould be in1 | | ths | | |
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| Today's Date: | Date of Last Meeting: | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Thesis Committee Record | | | | |
| Title of 1 | Thesis Project | | | |
| Heather Ezelle, Academic Services Specialist, HH32-committee member. Include appropriate mailing add Committee meetings are MANDATORY at least ever | nmittee members. Please return the original form to Dr. 4C. Copies, if requested, can be distributed to each dresses on the reverse side for any off-campus locations. Ty 12 months unless more frequent meetings are deemed audents must hold committee meetings every 6 months to | | | |
| Student | Student Number | | | |
| Thesis | Committee | | | |
| Thesis Committee Member names PRINTED | Signatures of Thesis Committee Members Present (please note reasons for any absences on signature line) | | | |
| Advisor | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | & Comments – Required chment if necessary) | | | |
| The next thesis committee should be in | | | | |
| (MD/PhD students must hold committee meetings every 6 | months to comply with MSTP guidelines) | | | |
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University of Maryland Graduate School, Baltimore

University of Maryland

Certification of Completion of the Doctoral

Dissertation* The Announcement of Doctoral Dissertation Must Accompany this Form

| Baltimore | | |
|-------------------------------------------------------------|-------------------------------|---------------------------|
| Date: | | |
| To: Associate Dean of the Graduate School | | |
| From: (dissertation committee chair) | (pro | ogram) |
| The undersigned members of the student's disser written by: | rtation committee hereby cert | ify that the dissertation |
| Student's Name: (last) | (first) | |
| Student ID Number: @ | | |
| entitled: | | |
| | | |
| is ready for defense. | | |
| Signatures: | | |
| Dissertation Committee Chair: | | (date) |
| Dissertation Reader 1: | | (date) |
| Dissertation Reader 2: | | (date) |
| Graduate Program Director: | | (date) |
| Date of Final Examination*: (month) | (day) | (year) |

*The examination committee must have sufficient time to review the thesis and return the form to the Graduate School at least two weeks (10 working days) before the examination.

Updated: May 2006

University of Maryland Baltimore Graduate School

Nomination of Members for Final Doctoral Examination Committee

- 1. File this form with the Graduate School at least six months before your final examination.
- 2. The chair and at least two committee members must be **Graduate Faculty Regular Members.
- 3. The committee must have between five and seven members, all of whom must hold a doctoral degree.
- 4. At least one committee member must be from outside the candidate's program.
- 5. Designate the chair and two other members as "readers". Two weeks before the final examination, the readers must certify that the doctoral dissertation is complete and ready to be defended by filing the *Certification of Completion of the Doctoral Dissertation Form* with the Graduate School.
- 6. For proposed examiners who are not members of the **Graduate Faculty, provide a curriculum vitae.
- 7. Submit this form to gradforms@umaryland.edu or Graduate School, 620 W. Lexington St., Fifth floor

| Student Last Name: | Student First Na | ame. | Student ID | Number: | | 1 |
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| E and the delegation | @ | | | | | |
| E-mail address: | | | | | | |
| Graduate Program: | Date admitted to | PhD Candidacy: | Proposed I | Date of Examination: | | |
| | | | (month) | | (day) | (year) |
| | Disse | ertation Commi | ittee | | | |
| Committee Chair (1): | Reader ⊠Yes □No | Department: | | ** <mark>Grac</mark> □Regular □Associate | duate Facu Spe | |
| Committee Member (2): | Reader Yes No | Department: | | ** <mark>Grac</mark> □Regular □Associate | duate Facu Spe | - |
| Committee Member (3): | Reader Yes No | Department: | | **Grace Regular Associate | duate Facu | - |
| Committee Member (4): | Reader Yes No | Department: | | ** <mark>Grac</mark> □Regular □Associate | duate Facu Spe | - |
| Committee Member (5): | Reader Yes No | Department: | | **Grace Regular Associate | luate Facu ☐ Spe ☐ No | |
| Committee Member (6): | Reader Yes No | Department: | | ** <mark>Grac</mark> □Regular □Associate | duate Facu Spe | - |
| Committee Member (7): | Reader Yes No | Department: | | ** <mark>Grac</mark> □Regular □Associate | | Ity Status: ecial ne (CV attached) |
| Approva | al Signat | ures or Electro | nic Sig | natures | | |
| Committee Chair: | Signature: | | | | Date: | |
| Graduate Program Director: | duate Program Director: Signature: | | | Date: | | |
| Graduate School Associate Dean: Dr. Erin Golembewski Submit application to Graduate School Dean's Office for signature: | | | Date: | | | |
| Dean's Representative | | | | | | |
| Graduate School assigned Dean's Representative: | | | | | | |

Updated: 10/10/2019

^{**}Graduate Faculty membership status (regular, associate, or special) is available: https://www.graduate.umaryland.edu/About/Faculty/Graduate-Faculty/