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Introduction

This handbook provides information on current membership, program structure, and administration for CMDB training faculty members.

Training Grant Information

CMDB program is funded by a grant from NIH entitled Cellular and Molecular Biology. NIH requires all publications generated by graduate students during their years of training grant support to cite the following grant number: T32-GM007231.

CMDB Program Administration

<table>
<thead>
<tr>
<th>Program Directors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reiji Kuruvilla</td>
</tr>
<tr>
<td>Associate Professor</td>
</tr>
<tr>
<td>Department of Biology</td>
</tr>
<tr>
<td>CMDB Program Director</td>
</tr>
<tr>
<td>Mudd 227</td>
</tr>
<tr>
<td><a href="mailto:rkuruvilla@jhu.edu">rkuruvilla@jhu.edu</a></td>
</tr>
</tbody>
</table>

Executive Committee

The Executive Committee is responsible for final decisions on Training Faculty memberships, implementation of program policies and procedures, compliance with Training Grant regulations, and individual student issues.

Executive Committee Members:

Vincent Hilser (Chair, Biology), Reiji Kuruvilla (Program Director), John Kim (Deputy Director), Mark Van Doren (PI on Training Grant), Bertrand Garcia-Moreno (Chair, Biophysics), and Yixian Zhena (Director Carnegie)

Curriculum Committee:

The curriculum committee reviews the course requirements on a continuous basis and implements adjustments as needed. Chair (John Kim)

Admissions Committee
Steven Farber (Chair, Admissions Committee; Carnegie), Christian Kaiser (Biology), John Kim (Biology), Trina Schroer (Biology), James Taylor (Biology), Xin Chen (Biology), Haiqing Zhao (Biology), Chen-Ming Fan (Carnegie), Greg Bowman (Biophysics), and Sarah Woodson (Biophysics)

CMDB Training Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doug Barrick</td>
<td>Biophysics</td>
</tr>
<tr>
<td>Karen Beemon</td>
<td>Biology</td>
</tr>
<tr>
<td>Alex Bortvin</td>
<td>Carnegie</td>
</tr>
<tr>
<td>Gregory Bowman</td>
<td>Biophysics</td>
</tr>
<tr>
<td>Brian Camley</td>
<td>Physics</td>
</tr>
<tr>
<td>Xin Chen</td>
<td>Biology</td>
</tr>
<tr>
<td>Kyle Cunningham</td>
<td>Biology</td>
</tr>
<tr>
<td>Jocelyne DiRuggiero</td>
<td>Biology</td>
</tr>
<tr>
<td>Chen Ming Fan</td>
<td>Carnegie</td>
</tr>
<tr>
<td>Steven Farber</td>
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</tr>
<tr>
<td>Karen Fleming</td>
<td>Biophysics</td>
</tr>
<tr>
<td>Ernesto Freire</td>
<td>Biology</td>
</tr>
<tr>
<td>Joseph Gall</td>
<td>Carnegie</td>
</tr>
<tr>
<td>Bertrand Garcia-Moreno</td>
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</tr>
<tr>
<td>Andrew Gordus</td>
<td>Biology</td>
</tr>
<tr>
<td>Marc Greenberg</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Taekjip Ha</td>
<td>Biophysics</td>
</tr>
<tr>
<td>Marnie Halpern</td>
<td>Carnegie</td>
</tr>
<tr>
<td>Vincent Hilser</td>
<td>Biology</td>
</tr>
<tr>
<td>Margaret Johnson</td>
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<tr>
<td>Robert Johnston</td>
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<tr>
<td>Christian Kaiser</td>
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<tr>
<td>John Kim</td>
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</tr>
<tr>
<td>Yumi Kim</td>
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</tr>
<tr>
<td>Alfredo Kirkwood</td>
<td>Neuroscience (Mind Brain Institute)</td>
</tr>
<tr>
<td>Rejjii Kuruvilla</td>
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<tr>
<td>Juliette Lecomte</td>
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<tr>
<td>Hey Kyoung Lee</td>
<td>Neuroscience (Mind Brain Institute)</td>
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<tr>
<td>William Ludington</td>
<td>Carnegie</td>
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<tr>
<td>Rajiv McCoy</td>
<td>Biology</td>
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<tr>
<td>Sua Myong</td>
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<tr>
<td>Name</td>
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<tr>
<td>Elijah Roberts</td>
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<td>Steven Rokita</td>
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<td>Michael Schatz</td>
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<td>Allan Spradling</td>
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<td>Craig Townsend</td>
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<td>Mark Van Doren</td>
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<td>Beverly Wendland</td>
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<tr>
<td>Haiqing Zhao</td>
<td>Biology</td>
</tr>
<tr>
<td>Yixian Zheng</td>
<td>Carnegie</td>
</tr>
</tbody>
</table>
Training Faculty Membership

All faculty members with a primary appointment in Biology, Biophysics, or Carnegie are members of the training faculty for CMDB.

Training faculty members may submit prospective nominees that are a) located at Johns Hopkins Homewood Campus and b) whose research would be appropriate to the CMDB program. This process can be initiated at any time during the year. The CMDB Executive Committee will convene and make a formal decision. Prior to the Executive Committee meeting each candidate will take the following steps:

- Present a seminar in Biology
- Submit a nomination letter from a CMDB member.
- Submit a CV
- Submit a statement on planned participation in the program.

If the candidate is approved the membership will be reviewed and renewed on a 3-year basis based on criteria listed below in Training Faculty Responsibilities

Training Faculty Responsibilities:

Being a member of the CMDB training faculty brings with it several responsibilities that are essential for proper training of our students and are also expectations of the NIH for successful renewal of our training grant. We have developed a set of guidelines that cover the roles and responsibilities of all CMDB graduate faculty, which we are mandated to articulate and periodically assess. This is to ensure that expectations for being a training faculty member are clearly communicated to all current and new members of the CMDB training program. Responsibilities of CMDB training faculty include the following:

1. Financial support of CMDB students: The number of students recruited to each laboratory should be commensurate with the research funding of the laboratory. Financial support of a CMDB Ph.D. graduate student is the primary responsibility of the faculty advisor. It is essential that faculty advisors make every effort to secure funding to support their students, which includes providing salary, 20% of tuition and health insurance, and covering research expenses. In addition, the advisor must assist graduate students with applications for fellowships. If there is a considerable lag in funding (>2 years), the training faculty member will be asked to document their efforts to obtain funding to the CMDB executive committee. After 3 continuous years in the absence of funding, the faculty will be removed from the CMDB training faculty list.

2. Scientific productivity: The CMDB program policy is that graduating students are required to have a minimum of one first author research paper published as a result of their thesis research. Faculty should ensure that their graduate students publish their work in a timely manner prior to the Thesis Defense. If this is not feasible, manuscripts for publication should be submitted within one year of the thesis defense.

3. CMDB program responsibilities: CMDB faculty are required to actively participate in the following program-related activities. It is not expected that each CMDB faculty member contributes to all categories of roles and responsibilities equally. In particular, it is understood that faculty who are in Carnegie or JHU departments outside of Biology that have different teaching
requirements and other research seminars will typically commit less time to graduate teaching and attending weekly progress reports.

- **Graduate teaching:** Teaching is an important mission in our training of graduate students. Currently, in addition to the required classes of Advanced Cell Biology, Biophysics, Genomes and Development, Molecular Biology and Computational laboratory courses for first-year students, we have 11 electives. All CMDB faculty are expected to participate in CMDB first year courses or courses that count as CMDB electives on a regular basis.

**Responsible Conduct of Research (RCR) classes:** As you are aware, federal funding agencies mandate that ethics training is provided for graduate students in the form of a Responsible Conduct of Research course. Of note, we are assessed as to the degree to which our faculty participate in this effort in our training grant renewal. Each faculty member is expected to oversee a class in the RCR course at least once over a 3-year window.

- **Thesis and GBO committees:** When requested, CMDB faculty are expected to participate on GBO/thesis committees of CMDB students. It is expected that faculty will serve in this capacity for students from other research groups whenever they are asked unless they can document an excess number of such committee responsibilities.

- **Weekly student progress reports:** Participating in the weekly student progress reports. It is expected that Biology faculty will attend at least half of the progress reports held in Mudd Hall. Carnegie and Biophysics faculty will attend presentations held in their departments but are also strongly encouraged to attend progress reports at Mudd Hall whenever possible. Committee meetings are often scheduled in conjunction with these presentations.

- **CMDB Recruitment:** All CMDB faculty are expected to attend events related to CMDB recruitment for our graduates and this is also a primary mechanism for recruiting rotation students to their labs. Faculty are expected to serve on the admissions committee and to schedule their commitments to avoid being out of town during our main CMDB recruitment weekend. Given the numbers of students we interview, it is essential that over 90% of the training faculty be present otherwise we simply cannot properly evaluate applicants. It is also expected that CMDB faculty plan on attending the social events related to recruitment.

- **CMDB Hooding Ceremony:** Along with the retreat, this is the primary celebration of our graduate program and faculty are expected to attend.

- **Annual Retreat:** All CMDB faculty are expected to attend the annual CMDB retreat. When asked, they are expected to help organize sessions, speak at the retreat, serve as poster judges, and in general, contribute to the overall success of the event.

- **Mentoring rotation students:** All CMDB faculty are expected to host and train first year CMDB students. CMDB faculty are also expected to host interested NIH GPP students during rotations 1 and 2. Faculty who are unavailable for hosting over a period of more than one year will be asked to provide their reasons to the CMDB executive committee. A thorough and accurate assessment of the student’s progress, strengths and weaknesses must be submitted at the end of each rotation period.

4. **Mentoring graduate students:** CMDB faculty have significant responsibilities in the education and training of graduate students.
- Faculty should maintain the highest standards of professionalism, ethical conduct, and collegiality. They should aim to provide for every graduate student under their supervision an environment that is intellectually stimulating, supportive, and free of harassment.

- Faculty should do their utmost to provide regular, timely, and constructive feedback to graduate students under their mentorship. Faculty should be engaged in continuous communication with the students they mentor, be responsive to their student’s need to meet, and be committed to helping the students acquire a knowledge base to develop a thesis project and conduct their thesis research. Faculty should discuss authorship policies with their graduate students and acknowledge their intellectual contributions to work in the laboratory.

- Faculty mentors are expected to follow program procedures to ensure timely progress toward graduation. This includes working with the students to ensure regular scheduling of GBOs and thesis committee meetings. Mentors are also required to complete the self-assessment form with their students before every thesis meeting (starting from the third year).

- Faculty should encourage the training of the graduate student in additional skills needed for success, such as oral and written communication skills, grant writing, lab management, animal and human research policies, the ethical conduct of research, and scientific professionalism.

- Faculty should encourage student participation in meetings, conferences, and seminars. Mentors must provide financial support for students to attend meetings (typically one per year), make relevant introductions and create opportunities for collaboration and professional development.

- Faculty should respect and encourage the chosen career paths of graduate students. Mentors are expected to provide career advice throughout the students’ training, and references upon graduation. Students should also be encouraged to attend Departmental programs/activities that are designed to introduce them to a variety of career options.

- Faculty are responsible for providing a safe working environment for graduate students, and for developing and publicizing safety policies and training programs.

- Faculty mentors should inform the Program Directors if problems arise that require administrative solutions.

Training Faculty will be evaluated over a 3-year window by a membership committee that will be selected for this purpose. The committee will include the program directors and members of the CMDB faculty.
CMDB Program Structure

The following timeline represents the yearly requirements for CMDB students.

<table>
<thead>
<tr>
<th>Year of Study</th>
<th>Research</th>
<th>Requirements</th>
<th>Annual Meetings</th>
<th>Other requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lab Rotations (4)</td>
<td>Required Courses (10)*</td>
<td>Mentor Selection</td>
<td>GBO (by 9/30)</td>
</tr>
<tr>
<td>2</td>
<td>Thesis Research</td>
<td>Lab TA (2 Semesters)</td>
<td>Thesis proposal Meeting (8/31)</td>
<td>Self-Assessment</td>
</tr>
<tr>
<td>3</td>
<td>Thesis Research</td>
<td>Elective Class</td>
<td>Annual Review 1 (8/31)</td>
<td>Self-Assessment</td>
</tr>
<tr>
<td>4</td>
<td>Thesis Research</td>
<td>Elective Class</td>
<td>Annual Review 2 (8/31)</td>
<td>Self-Assessment</td>
</tr>
<tr>
<td>5</td>
<td>Thesis Research</td>
<td>Elective Class</td>
<td>Thesis Planning Meeting (8/31)</td>
<td>Self-Assessment</td>
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<tr>
<td>5.5-6</td>
<td>Thesis Research</td>
<td></td>
<td>Preliminary Thesis Approval</td>
<td>Self-Assessment</td>
</tr>
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</table>

**GRADUATE STUDENT PROGRAM REQUIREMENTS**

- **CORE CLASSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Term</th>
<th>Year</th>
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<tbody>
<tr>
<td>020.601</td>
<td>Current Research in Biosciences</td>
<td>Fall</td>
<td>Year 1</td>
</tr>
<tr>
<td>020.607</td>
<td>Quantitative Biology Bootcamp</td>
<td>Orientation Week</td>
<td>Year 1</td>
</tr>
<tr>
<td>020.617</td>
<td>Quantitative Biology Lab I</td>
<td>Fall</td>
<td>Year 1</td>
</tr>
<tr>
<td>020.668</td>
<td>Advanced Molecular Biology and Genetics</td>
<td>Fall</td>
<td>Year 1</td>
</tr>
<tr>
<td>020.686</td>
<td>Advanced Cell Biology</td>
<td>Fall</td>
<td>Year 1</td>
</tr>
<tr>
<td>020.699</td>
<td>CMDB RCR</td>
<td>Fall</td>
<td>Year 1</td>
</tr>
</tbody>
</table>
• ELECTIVE COURSEWORK
Graduate students may enroll in any course listed on the pre-approved electives site as part of their elective requirement. Furthermore, any two professional development classes may count towards the Ph.D. requirements, but permission to enroll must be obtained from both the student’s advisor and the CMDB Program Director). Any career electives should preferably be taken by senior students close to graduating, 4th year and above.

• SELECTION OF RESEARCH ADVISOR
A research advisor is usually chosen at the end of the fourth rotation. To prevent decisions being made prematurely, no agreements between a faculty member and a student regarding joining a lab for thesis work may be made prior to the end of the last rotation period. During the final week, students may approach prospective thesis mentors to express interest in thesis work and to discuss potential projects. To formally join a laboratory, written permission from the proposed research advisor is required (see appendix). This form will be emailed to you during the last week of the 4th rotation. Only training faculty affiliated with the CMDB program are eligible to be mentors for CMDB students, without exception. If a student fails to find a mentor by August 31st, they will be asked to leave the program. Graduate students should be mindful that each mentor can only accept 2 new students to join his/her lab per year.

• GBO
The Homewood Graduate Board requires all Ph.D. students to pass a comprehensive oral examination prior to award of the degree. The objectives and purposes of the oral exam can be found at the Graduate Board website: (http://homewoodgrad.jhu.edu/academics/graduateboard/).

The CMDB program requires students to take the Graduate Board Oral (GBO) examination before the end of the September after the first year of study (i.e. by September 30 of that year). In order to be eligible to take the GBO examination a student must have a cumulative grade point average of 3.0. In addition, a grade of B- or better must be earned in all required courses. (This means that while one or two B- grades will not necessarily doom you, you must in turn have some grades better than a B to satisfy the GPA requirement). However, students who have a GPA of 3.0 or below can only take the GBO by permission of the CMDB Director(s). The oral examination is designed to test the breadth and depth of a student’s knowledge and his or her reasoning abilities. The student should be judged based on their performance during the oral examination.
The possible outcomes of a GBO are: unconditional pass, conditional pass, and fail.

A conditional pass is given when a student’s exam performance indicates weakness in one or more specific areas in which a specific remedy can be identified to correct the weakness (typically writing a paper, taking a course, or giving a seminar). The conditions required by the committee must be successfully completed by the deadline stipulated by the committee, which should be no later than six months after the original exam date (for conditions requiring a longer time frame, such as courses only offered the following spring, the committee can stipulate such a deadline). **When a student is required to take a course to fulfill a GBO requirement, this course must be taken for a letter grade and the student must receive a B- or better.** Note: only the GBO committee can decide when the conditions have been met and a student has fulfilled the conditions and successfully passed the GBO examination. The student’s advisor, CMDB Program Director and Department Chair can offer advice, but do not make this decision. Therefore, the student should contact the Chair of their GBO Examination Committee if they have any questions about whether they are appropriately meeting the conditions this committee has set for them.

A fail is given when the overall performance on the GBO exam is unsatisfactory and/or no specific remedy for the weaknesses is readily identifiable. If recommended by the GBO Examination Committee, students may be allowed to retake the GBO examination **one time only** within six months of the original exam date. Students will be re-examined by the same GBO committee unless written approval is obtained from the CMDB Program Director. A second failure results in an immediate dismissal from the CMDB program.

> **COMPOSITION OF THE EXAMINING COMMITTEE & SCHEDULING**

The GBO examining committee consists of five members plus two alternates. The Graduate Board, which is a JHU committee that oversees GBO exams and approves examiner committee composition, requires that two or three members be from outside the student’s home department. The Graduate Board has in the past invalidated GBO exams administered by a committee with an incomplete attendance or with the incorrect composition. Therefore, the exam should not begin until the ENTIRE committee is present. If a committee member is unable to attend, they must be replaced by the appropriate alternate committee member before beginning the exam. The advisor is not a member of the examining committee, but may be a silent observer in the exam.

As of Fall 2016, every GBO committee should be represented by expertise in the following areas; cell biology, molecular biology and genetics, biophysics, developmental biology and/or computation (if appropriate). The committee will still consist of five members plus two alternates (see eligibility in matrix below). The student in consultation with their mentor will propose a GBO committee with the appropriate representation.

CMDB training faculty are listed according to their research interests at [http://cmdb.jhu.edu/](http://cmdb.jhu.edu/), and you can avail of this to help with your selections, which will now have to be approved by the CMDB Program directors. Please note that faculty interests may not be limited to any one area. Thus, for example, a committee member who serves as a cell biologist on one GBO committee could be used for any of the other areas on another exam, if they have the expertise.

At least one outside member of the committee must be an Associate Professor or higher so that he/she may serve as chairman of the examination committee.
<table>
<thead>
<tr>
<th>Advisor Department</th>
<th>Inside Members</th>
<th>Outside Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>If 2 Biology</td>
<td>3 Other JHU Departments*/Carnegie maximum of 2</td>
</tr>
<tr>
<td></td>
<td>If 3 Biology</td>
<td>2 Other JHU Departments*/Carnegie maximum of 1</td>
</tr>
<tr>
<td>Biophysics</td>
<td>If 2 Biophysics</td>
<td>1 Other JHU Department* and 2 Biology</td>
</tr>
<tr>
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<td>If 2 Carnegie</td>
<td>1 Other JHU Department and 2 Biology</td>
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<td></td>
<td>If 3 Carnegie</td>
<td>2 Biology</td>
</tr>
<tr>
<td>Chemistry</td>
<td>If 2 Chemistry</td>
<td>1 other JHU Department* and 2 Biology</td>
</tr>
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<td>2 Biology</td>
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<td>NIH</td>
<td>If 1 NIH</td>
<td>2 Other JHU Departments* and 2 Biology</td>
</tr>
<tr>
<td></td>
<td>If 2 NIH</td>
<td>1 Other JHU Departments* and 2 Biology</td>
</tr>
</tbody>
</table>

- * Carnegie & NIH are not JHU Departments and cannot be used to meet this requirement.

(For students in GPP, a maximum of 2 NIH investigators may serve on the committee as inside members.)

The student's research advisor should select the members of the committee and convey the list of possible examiners to the Academic Affairs Administrator via the GBO exam sheet which delineates all fields represented by the potential examiners. The program directors will approve the committee. The Academic Affairs Administrator will then contact faculty, schedule the exam and complete the required paperwork. The paperwork is sent to the Graduate Board at least three weeks in advance. The Graduate Board approves the committee and returns a copy of the examination form to the Department. The Academic Affairs Administrator will confirm the appointment of the committee members and notify them of the date, time and place of the examination via email.

Any exemptions to this deadline must be obtained in writing from the CMDB Program Director. If the student is required by his/her committee to be retested, the requirement must be satisfied within six months of the date of the examination. **All examinations must take place on the Homewood Campus.**

➢ **STUDYING FOR THE EXAM**

Students should keep in mind that the GBO is a test of general knowledge and scientific reasoning, and is not based solely on the thesis research. Although some questions will deal with issues directly related to the subject of the thesis research, many questions are only peripherally related to this topic. Students should assume that any issues related to topics covered by any of the core courses are possible subjects for questioning by the committee.

To successfully conduct research in biology and biophysics, a solid, general background in chemistry, biochemistry, molecular, cellular and developmental biology is essential. As a starting point, you might review concepts in a text such as "Molecular Biology of the Cell" and a rigorous biochemistry text. Another very good suggestion is to choose a half dozen key papers in your field and read the methods sections of each in detail, making sure that you understand why each experimental approach was taken, how the experiments were designed, and how the authors...
were (hopefully) able to draw definitive conclusions. One piece of advice for studying: concepts are more important than details. Don't waste time memorizing facts: they won't be useful in the exam and you'll forget them in 2 months.

An example:
Should you memorize the name of every protein in a ribosome? No.
Should you try to understand what a ribosome is and what it does? Yes.

Many students form study groups and also participate in 'mock' GBO exams administered by more senior students. These types of activities, as well as the day-to-day process of engaging in scientific discussions with your peers, lab mates, and seminar speakers, all contribute to preparation for doing well in the GBO exam.

➤ PROCEDURE OF ORAL EXAMINATION

Remind the members of your committee of the place and time of the exam.

As a courtesy to committee members not on campus, the academic program coordinator will provide parking passes at the exam.

The academic program coordinator will make arrangements in advance and have your academic folder brought to the examination.

Part 1: Pre-exam closed committee meeting (generally 5-15 minutes)

Student leaves the room (but advisor stays). There will be a general discussion of the student's progress in the first two years, strengths or weaknesses, and organization of the exam.

Part 2: Main part of the exam (generally ~90 minutes total)

The choice of format is up to the committee and will be agreed upon at the beginning of the exam. In most cases the committee will allow the student to choose the format. With format (a), some type of timer should be used to signal the presentation time limit.

The exam is designed to assess whether the student is ready to pursue full time research toward a Ph.D. thesis. This entails knowledge of background literature, understanding of limitations and risks to available approaches, and an ability to design control experiments that will be needed to provide definitive information.

Rule 1: Don't panic during questions. If you get asked a question that you can answer, answer it. If you get asked a question that you can't answer, you might suggest how you would find out (experimentally or in the library). If you get asked a question that you don't understand, ask the questioner to rephrase the question until you understand what is being asked. If you know the answer, but can't think of the specific name for something, admit it but describe what you do know – knowing something is better than knowing nothing.

Part 3: Post-exam closed committee meeting.
Student and advisor leave the room. Members of the committee discuss the student’s strengths and weaknesses, performance on the exam, and any other issues that might be relevant to the transition to full-time research status. If there are significant deficits, the committee should decide on a course of action, either failing the student or giving a "conditional pass" (spelling out specific conditions). If there are less significant deficits, the committee may decide on specific suggestions for the student or advisor.

Part 4: Post-exam meeting with student and advisor.

Student and advisor come back into the room. Generally, the chairperson gives a general summation of the results of the exam.

Although it is not a formal part of the GBO exam, it may be valuable to the student to:

1. critique his or her own performance in the presentation and questions
2. express any deficits that they feel they have in their graduate preparation and ask for suggestions regarding how to rectify the deficits (no one is perfect!).

Next, each member of the committee should give a few comments to the student that sum up strengths and weaknesses in the proposal and of the student's presentation. These should be kept very short (a minute or so each) if the student did very well in the exam and passed, and may be longer if the student had significant deficits.

Finally, the chairperson of the committee should explain to the student any conditions for passage or re-examination, and the written exam record should be filled out by the chairperson and signed by the committee members. The student and mentor will be given a copy of any specific conditions that need to be satisfied in the event of a ‘conditional pass’. Only the GBO committee can decide when the student has satisfied these conditions. The chair of the GBO committee is responsible for communicating with the chair of the Graduate Board regarding the outcome of the exam, and also informs the Graduate Board in writing when the conditions have been satisfied. It is the responsibility of the student to communicate with the GBO committee chair to ensure that the conditions are understood and met. Students who do not resolve the conditions their GBO exam by the deadline stipulated by the committee (usually within six months of the exam date) are subject to dismissal from the program.

Results of the oral examination should be recorded on the graduate board oral examination form that the chair of the committee receives. This form is subsequently recorded by the program office, Graduate Board, and finally by the Registrar.
• **THESIS COMMITTEE**

After a student has chosen a laboratory for thesis research and has passed the GBO exam, he/she, in consultation with the research advisor, will select a minimum of two additional faculty members to serve on the Thesis Committee. Often, these two faculty members were also on the student’s GBO committee, but this is not required. All committees will be approved by the program directors. All committees must have a chair. The chair will be designated by the program directors. Students who are scheduling their thesis meetings should inform the Academic Affairs Administrator prior to the exam for the above approvals. All students are required to send their thesis proposals/progress outlines and completed self-assessment forms to their committee at least two weeks ahead of the scheduled meeting. Once the thesis committee is approved and a chair designated, it should remain in place throughout the student’s career at Johns Hopkins. However, if changes are necessitated, approval of the students’ advisor and the Graduate Program Director is required for a student to change the members of their Thesis Review Committee. The Academic Affairs administrator will notify the selected chair of the committee in advance, as well as notify he/she of their responsibilities.

• **TEACHING**

During the second year of graduate school, each student must teach in one undergraduate-level Biology or Biophysics course (with a corresponding lab course) for each of two semesters. **Students are expected to be serious and conscientious regarding their teaching responsibilities**, as this is an excellent learning experience and is an important aspect of the university’s mission. Students who excel in their teaching responsibilities are eligible for departmental teaching awards. Students who do not successfully complete the teaching requirements will be placed on probation and may be subject to dismissal from the program.

• **YEARLY REVIEWS OF RESEARCH PROGRESS**

**Year 2: THESIS RESEARCH PROPOSAL MEETING (6 PAGE LIMIT for Research Plan plus 1 page Specific Aims)**

The thesis proposal should be written in the format of an NIH pre-doctoral fellowship grant application. The proposal should include sufficient information to permit an effective review without reviewers having to refer to the literature. Brevity and clarity in the presentation are important. The proposal (including any tables or figures) should not exceed 6 pages for the research plan and 1 page for specific aims and should be distributed to Thesis Committee 2 weeks prior to the Thesis Proposal Meeting (first Thesis Committee meeting) which occurs before the end of the second year.

Writing an effective grant/thesis proposal entails knowledge of the background literature, understanding the basis of, limitations to, and inherent risks in the available approaches, and an ability to design controlled experiments that will be needed to provide definitive information. Students should prepare the initial proposal with only minimal guidance and input from the thesis advisor, but after that, the level of involvement of the advisor is at the discretion of the advisor. Some advisors take this as an opportunity to teach their students grant writing skills. Additionally, students should learn from this grant writing experience the value of writing and re-writing multiple drafts, and are encouraged to read each others’ proposals to make constructive criticisms regarding clarity and logic. Multiple rounds of editing and polishing are absolutely necessary for the final document to be clear and easy-to read for a broad audience, as is typically the case for most grant applications.
Specific Aims. State the specific purposes of the research proposal and the hypothesis to be tested. (1 page)

The "specific aims" section should begin with a short introductory paragraph which provides some context of the work in the overall field of study: why is this field of study important and what are the current outstanding questions. There should then be an enumeration of specific aims (generally 2-5 aims). Each aim should center on an experimental goal or biological question that can be summarized in one or two lines. After each specific aim, a few sentences of explanation should give a summary of the approaches that will be taken toward the experimental goal. At the very end of the specific aims section, it is useful to have a paragraph describing how the proposed research will fit into the larger realm of research in the long run. This section often includes potential applications or experimental directions that may be beyond the scope of the proposed time period, but which demonstrate the long-term significance of the proposed work.

Background and Significance. Describe the background research necessary to understand the proposed work and why it is significant (1-2 pages).

Assume that the reader is a scientist, but not necessarily one who works in your specific field. Review only those previous studies that are directly relevant to your proposed work; this is not a general review of the field but specific information to help the reader understand your proposal. You should provide them with a working understanding of what is known and, importantly, what is not known. Explain the significance the proposed work will have in our understanding of biological processes and in practical applications.

Preliminary Studies and Research (4-5 pages). Describe your initial studies that support or provide proof of principle for your proposed research. Include a description of any studies that support the plausibility of your proposed research direction and the hypotheses you put forward and/or the feasibility of the approaches that you will use. Include only those data that are directly relevant for the proposal, and do so succinctly (this is a grant proposal, not a research paper). Include figures of the most relevant data.

Provide an outline of research design and the procedures to be used to accomplish the specific aims and a tentative sequence for the investigation. This is the central core of your proposal. The goal of this section is to describe the experimental approaches that will be used to address each specific aim, including a concise description of experimental design for "standard" approaches, as well as a full description of any novel experimental designs that you propose. When using established procedures, provide a brief description and then cite relevant literature for details. For each experimental direction, you should note the nature of conclusions that might be drawn, the types of control experiments that will be needed to support these conclusions, and the potential experimental problems or ambiguities that might be encountered, along with alternative strategies to circumvent these problems. Provide some framework for how you will prioritize experiments.

Bibliography (not included in page limit).

- Year 3 and 4 ANNUAL THESIS REVIEWS

CMDB students are required to have their Annual Committee Meeting within ONE MONTH of their Progress Report. (For students working in Carnegie labs, this is their CMDB, Mudd Hall, Progress Report). Students should do their best to have their Committee Meeting on the same day as their Progress Report, since the faculty would have just heard all about their progress. However, if scheduling conflicts arise, students can have the meeting any time in the following month. Students should remember to schedule this meeting well ahead of time--once the PR
schedule is out, you know when you should have your meeting and you can contact the faculty to put it on their schedules.

Exceptions to the above policy:

- 2nd year students do not give PR and are required to have their first committee meeting by August 31st of their second year (but DON'T wait until August!).

- 5th year students are still required to have their "Thesis Plan Meeting" by December 31st of their 5th year. Since more senior students tend to have earlier progress reports, it will hopefully still be possible to couple this to your PR.

Note: senior students (beyond 5th year) who have not yet scheduled their thesis defense (i.e. a firm date in the upcoming weeks, agreed upon by the committee) are still required to give PR and have annual thesis committee meetings within one month of their PR.

In the second year of study and beyond, all students in the CMDB program are required to have an annual Thesis Committee meeting. A student’s review for a particular academic year must be completed by August 31st. No exceptions to this requirement will be made unless the student has a SCHEDULED thesis defense date. Students are responsible for setting up the meetings of the committees, which should be held on the Homewood Campus. If a student fails to meet this requirement, stipend and tuition support will not be provided for the upcoming semester and a student may be terminated from the program.

- Year 5 THESIS PLANNING MEETING

In keeping with a general goal of graduation in 5-5.5 years, a special ‘Thesis Plan Meeting’ will be held after 4-4.5 years of study (by December 31st of the 5th year). This meeting also serves as the annual Committee Meeting for the student for that year. In collaboration with the thesis mentor, the student should prepare a detailed thesis outline and a plan for graduation in 12-18 months. The outline should include a clear description of the chapters to be included in the final Thesis, an indication of which experiments have been completed and which are still in progress. The student should also be prepared to discuss plans following graduation to receive advice and input from the committee for how to prepare for and obtain a desired position. The plan should be distributed to the committee members one week before the meeting. Students should also complete a Student Self-Assessment as they would do for any Thesis Committee meeting.

- Year 5.5 – THESIS DEFENSE APPROVAL MEETING

The final thesis defense approval committee meeting should be 4-6 months prior to the anticipated thesis defense date, and the committee must officially approve the thesis content and outline at this time in order for the student to schedule their thesis defense (see below). The Thesis Committee should also ensure that the student’s thesis research will result in a MINIMUM of one, first-author publication which is a requirement of the CMDB program. It should be the goal of every student and advisor to hold the Thesis Defense Approval meeting and the Thesis Defense by the end of the student’s 6th year in the program. Results of the meeting must be reported to the Academic Program Coordinator so that the student will have approval to schedule their Thesis Defense. A student is expected to conduct their Thesis Defense within 6 months of the successful completion of this meeting. Committee members should not give their approval at this meeting unless a successful Defense is possible within this time. If a student is unable to schedule their thesis seminar within 6 months of their Thesis Defense Approval meeting, they are required to
reconvene their Thesis Committee within one month and present a revised timeline for finishing their Thesis and scheduling their Defense. If a student has completed their Thesis Defense Approval Meeting but not yet scheduled their Thesis Defense, they are still required to present their Progress Report as scheduled. If a student does not conduct their Thesis Defense Approval meeting during their 6th academic year, then they are still required to conduct a Thesis Committee Meeting by August 31st of that year.

- **STUDENT SELF-ASSESSMENT**

In order to provide the student with more feedback about their progress in the program, advancement as a scientist, and success in advancing their career goals, students are required to conduct a self-assessment (http://cmdb.jhu.edu/files/GraduateStudentAssessment.pdf) prior to each committee meeting in the 2nd year and beyond. Since committee meetings tend to focus on the research project rather than the student, the goal of the self-assessment is to allow the student to evaluate their own progress, and prompt their committee to discuss this progress (in addition to discussing the research project). Committee members should review the student’s self-assessment, and provide necessary feedback and suggestions for how the student might make improvements and further advance their career goals. The student self-assessment should be forwarded to the committee members at least one week prior to the committee meeting.

- **FINAL THESIS DEFENSE (STARTING 1/1/2019)**

- Students will still be required to schedule the 6-month thesis defense approval meeting prior to the anticipated thesis seminar date.

- The thesis dissertation must be written and given to the primary and secondary readers at least 6-7 weeks in advance of the 2-month thesis defense exam meeting. A revised version must be distributed to the entire thesis defense committee 2 weeks prior to the 2-month thesis exam meeting.

- The final thesis defense committee will include the research advisor, the two members of the annual thesis review committee, and one additional member (at least 4 members are required for the final thesis committee). One member of this committee must be from outside the department in which the student has performed his/her thesis work. The committee must be approved by the Graduate Program Director at least one month prior to the thesis defense exam.

- The thesis defense exam meeting will include a 30-minute presentation to be followed by a rigorous defense of the thesis work and dissertation to members of the thesis defense committee.

- Students are expected to address any concerns regarding the dissertation within the 2-month period before the public seminar. Readers must sign a letter recommending acceptance of the dissertation at least 2 weeks in advance of the public seminar.

- **FINAL GRADUATION REQUIREMENTS**

Upon completion of the thesis research and preparation of the thesis in the form specified by the Graduate Board, an oral examination of the thesis research is administered by four knowledgeable and recognized experts in areas related to the research, followed by a public seminar. Specific steps must be completed while preparing the final thesis and scheduling the thesis defense. Prior to writing the dissertation, the student should check with the Academic Affairs Administrator to be sure that all other academic requirements are met.

- **FINAL THESIS DEFENSE AND FINAL DEFENSE COMMITTEE**
The final Thesis Defense Committee will ordinarily include the research advisor, the two members of the annual thesis review committee and one additional member. One member of this committee must be from outside the department in which the student has performed his/her thesis work. (The committee must be approved in advance by the Graduate Program Director). The committee will select a Chair from among its members. All committee members, except the thesis advisor, are eligible to Chair, but priority in selecting a Chair will be given to seniority. A final committee approval must be obtained one month prior to the scheduled thesis defense exam.

For students that have been conducting their research as non-residents (i.e, GPP students and students whose labs have relocated), the following standards should be followed:

The thesis readers should be the PI as primary reader and one current CMDB faculty member as second reader.

The defense must be held here at Hopkins, and at least two of the thesis committee members should be current CMDB faculty.

The PI should return for the defense and serve on this committee (and counts as an outside member).

The committee should consist of four faculty on their thesis approval committee (as usual), with the additional member(s) coming from CMDB or their current institution or other outside members. However, all thesis committee members should be present for the defense.

The PI should return for the defense and serve on this committee (and counts as an outside member).

The committee should consist of four faculty on their thesis approval committee (as usual), with the additional member(s) coming from CMDB or their current institution or other outside members. However, all thesis committee members should be present for the defense.

- **DISSERTATION**

  The dissertation must be written and given to the primary and secondary readers (see below) at least 6-7 weeks in advance of the 2-month thesis defense exam meeting. A revised version must be distributed to the entire Thesis Defense Committee 2 weeks prior to the scheduled thesis defense exam meeting. University-wide rules for the dissertation format can be obtained from The Graduate Board.

- **PUBLICATION REQUIREMENT**

  Students graduating from the CMDB program are required to have a minimum of one first author research paper published as a result of their thesis research (but students should aim for several publications). The student’s Thesis Committee should ensure that this publication requirement will be met at the time of the “Thesis Defense Approval meeting” (4-6 month meeting). Students and their advisors should ensure that at least one first author research manuscript has been submitted from the student’s thesis research within one year of the Thesis Defense.
STUDENT STATUS

• GRADES
Letter grades are given for graduate coursework and will be recorded on the graduate transcript. Students are also evaluated at the end of each rotation period (see evaluation form in the Appendix). Letter grades for performance during the rotation period are assigned by the faculty mentor. Rotations grades count similarly to course grades for calculating GPA and evaluating academic standing. The CMDB Program Directors will review the performance of all first-year students at the end of the first semester. Any student receiving a grade of C+ or lower in a course or rotation, or with a combined GPA less than 3.0, will be placed on probation with written notification. Any student who receives two grades of C+ or lower during the first year, who has a combined GPA less than 3.0, or who fails to otherwise meet the conditions of their probation, will be dismissed from the program.

Students must receive a grade above a C+ in any of the required courses or the course must be repeated.

Failure to receive a grade above a C+ in two required courses is grounds for termination from the program.

Failure to receive a grade above a C+ in a required course a second time is grounds for termination from the program.

During each semester, students must keep a grade point average of 3.0 (B) for all courses taken. Falling below the GPA of 3.0 for one semester is grounds for a warning; falling below it for two semesters is grounds for termination from the program (see Probation and Dismissal from the Program, below).

• PROBATION AND DISMISSAL POLICIES

For students in all years, grades and a list of those requirements that have been met will be available on the program website at the end of each semester. A student may request to see their grades at any time. A grade of B- or better must be obtained in all courses in order to fulfill the requirements for a Ph.D. A student may only retake courses to improve a grade once. Students must maintain a Grade Point Average of 3.0 to remain in good academic standing. If a student has not attained a 3.0 average in Core CMDB courses by the end of the second year, he/she will not be allowed to take the GBO and will be dismissed from the program. Students must also make satisfactory progress in their thesis research, and in completing other requirements for the Ph.D. degree (e.g. teaching requirements and passing the GBO exam), to remain in good academic standing. Students who do not meet the above requirements will be placed on probation and will be dismissed from the program.

• PROBATION/DISMISSAL SCENARIOS

Two C’s or Lower in Core Coursework (IMMEDIATE DISMISSAL)

-3.0 GPA Average in Core Courses by year 2 (PROBATION)

Unsatisfactory Research Progress (PROBATION)

Failure on GBO Exam (PROBATION; and must have approval to retake)

KSAS policies on probation and dismissals can be found here:

• APPEALS TO DISMISSAL

A student may appeal the dismissal or funding withdrawal decision within five business days, to the Chair of the CMDB Executive Committee (currently Dr. Rejj i Kuruvilla) with a letter stating why he/she feels this decision is unmerited. The Executive Committee will render a decision on the appeal within five business days. The student may then appeal that decision within five business days to the cognizant Dean, again, with a letter stating why he/she feels this decision is unmerited. In the case of funding withdrawal, the program will continue funding the graduate assistant during the appeal process, provided that the graduate assistant continues with his/her assistantship duties. The student’s visa and registration status will not be affected until the appeal process is complete. If the student believes the decision was made in an arbitrary or capricious manner, he/she may file a grievance following the Homewood Grievance Policy:

http://grad.jhu.edu/downloads/Homewood%20Grievance%20Policy%202012.pdf

If the decision is made to dismiss an international student, immigration regulations require that the student depart the country within fifteen days. This does not preclude the student from filing a grievance.

• NON-RESIDENT STATUS

Non-resident status is designed for those students who have completed all program requirements except for the thesis research, and have left the campus to pursue their research (i.e., advanced NIH/GPP students). To register for this status please obtain a form from the Academic Affairs Administrator. Changes in status must be approved by the Program Director and the Graduate Board.
OTHER CMDB POLICIES AND COMPONENTS

• PROGRESS REPORTS

Every graduate student in their third year of study and beyond must present a progress report of their research during the academic year. No exceptions to this requirement will be made unless the student has a SCHEDULED thesis defense date. This series was organized to provide students and post-docs with an opportunity to present their results and to promote interaction between laboratories. Graduate students (beyond year 2) and postdoctoral fellows from all labs will give talks (25 minute talk and 5 minute question period) based on their work. Graduate students are encouraged to utilize this talk as a preliminary presentation for their Annual Thesis Review. The progress reports are held on Tuesdays at 12:00 PM in Mudd 100. Each summer, the Progress Report Coordinator will schedule the talks for the next academic year in conjunction with the research advisors. As with the annual thesis review, failure to participate in the progress reports by August 31 of each year will result in a termination of stipend and tuition support.

• TIME LIMITS

The graduate program has been designed so that a student who is working in a proficient manner should be able to finish coursework and the dissertation in ~5 years. Failure to adhere to the following time constraints and policies will result in a forfeiture of tuition support and stipend:

Graduate students must choose a research advisor no later than August 31 of the first year. Any deviation from this policy needs permission in writing from the CMDB Program Director.

The graduate board oral examination should be completed no later than September 30 of the second year. Any deviation from this deadline needs permission in writing from the CMDB Program Director.

A student in the sixth year of graduate study and beyond is required to obtain permission to register each semester in writing from the CMDB Program Director. To obtain permission to register, complete a “Permission to Register” form and have it signed by the thesis mentor and the CMDB Graduate Program Director. The CMDB Program Director will require an update regarding the student’s status and graduation plans. The signed form must be submitted to the Academic Affairs Administrator to maintain your student status. (See the Appendix for an example of the Permission to Register form).

• FULL-TIME STATUS, VACATION AND LEAVE

Graduate students are required to be in residence "full time", which is defined as a minimum of 40 hours per week. Graduate students may observe official holidays listed on the JHU Holiday Calendar. Graduate students are required to remain in residence when classes are in session and also when classes are not in session, except for official university holidays. For example, graduate students remain in residence during breaks in the Academic Calendar (e.g. January Intersession, Spring Break, and Summer Recess) and the non-holiday period between Christmas and New Year's Day. First year students continue their laboratory rotations and take the required “Responsible Conduct in Research” course during Intersession. More senior students will be conducting thesis research during these times.

Vacations and Holidays. Trainees may receive the same vacations and holidays available to individuals in comparable training positions at the recipient organization. Trainees will continue to receive stipends during vacations and holidays. At academic institutions, the time between
semesters or academic quarters generally is considered an active part of the training period and is not considered to be a vacation or holiday.

**Sick Leave and Other Leave.** Trainees may continue to receive stipends for up to 15 calendar days of sick leave per year. Under exceptional circumstances, this period may be extended by the NIH awarding IC in response to a written request from an AOR. Sick leave may be used for the medical conditions related to pregnancy and childbirth.

**Parental and Sick Leave.** The following JHU policy in compliance with the NIH is in force for graduate students:


Accordingly, the amount of vacation time allowed is decided by the head of each individual lab. In general, and in keeping with JHU and NIH guidelines, students should restrict vacation time to no more than three weeks, or 15 weekdays, per year.

Students should notify their supervisor about vacation time well in advance and receive approval. Students should notify their advisor in a timely manner when requiring sick leave and should provide medical documentation when appropriate. Students should also notify their advisors well in advance when planning parental leave.

- **LEAVE OF ABSENCE**

Leave of Absence status is granted to those students who must temporarily suspend their studies due to military duty, significant medical conditions, or personal or family hardships. Any graduate student requesting a Leave of Absence must complete an application and submit it for approval by the Program Director and by the Graduate Board. The Leave of Absence is granted for a maximum of two years. Stipends will not be issued during leave of absence. Students on Leave of Absence requesting re-entry into full-time status must complete an application and submit it for approval by the Program Director and by the Graduate Board.

- **COMPLIANCE AND REMEDIES**

Graduate students who fail to maintain full time status, who exceed the maximum levels of leave, or who fail to comply with other time limits or program policies will be subject to termination with cause and/or dismissal from the CMDB program, unless the situation is remedied. Remedies must be negotiated and agreed upon in writing by the graduate student, the research advisor (if applicable), and the Program Director. Remedies may include forfeiture of stipend, alternative status, or another reasonable accommodation. If the issue is unresolved, students should seek assistance from the Disabilities Office, if they believe accommodation could be arranged, to permit reentry into the graduate program.

- **MASTER'S DEGREE**

The program in Cell, Molecular, Developmental Biology and Biophysics does not grant the M.A. degree except in special cases. The Master's Degree is only given to those students who choose not to remain in the program. The Master's degree is not automatically awarded and is given at the discretion of the Executive Committee. The terminal Master's Degree cannot be given to a student on Leave of Absence.

In some cases, it will be appropriate for a student who is dismissed from, or elects to leave the CMDB program to receive a Masters degree from Johns Hopkins. This is solely at the discretion
of the CMDB Program Director(s) in consultation with the student's thesis advisor and thesis/GBO committee. The criteria upon which this decision will be based include:

-the student’s academic performance. A student must be in good academic standing according to the CMDB Handbook in order to receive a Masters Degree.

-the student’s research. The student must have demonstrated strong dedication to research and made a significant contribution to a research project. Rotations do not count as such a significant contribution.

-the student’s teaching. The student must have completed all required teaching responsibilities in an acceptable manner.

-the successful completion of the Graduate Board examination. Students with unresolved conditions are not eligible for Masters Degree until the condition is resolved.

In practical terms, this means that students who leave the CMDB program after their first year are not eligible for a Masters Degree, while students leaving after their second year or beyond MAY be eligible IF the above criteria are met.

If a student is approved to proceed to a Masters Degree, they are required to write a Masters Thesis and have this approved by their thesis advisor and the CMDB Program Director(s). The Masters Thesis should have:

-at least 20 pages not including figures and references (single spaced, no more than 12 pts font with maximum 1.25 inch margins)

-thorough referencing which is NOT included in the 20 page minimum

-A first chapter that is a thoughtful and complete introduction to the relevant research problem

-At least one research chapter, written in the format of a scientific paper, although the introduction may be shortened to avoid duplication of material covered in chapter one

-Sufficient data to document the accomplished research

- LAB TRANSFERS

Occasionally, there are times when a student will decide that their choice of thesis lab/mentor is not conducive with their successful progress toward a PhD, or a thesis mentor decides that their lab is not the proper place for a particular student. These are extreme situations that should only be reached after all other efforts to find a way to work together have been exhausted. However, just as the initial decision for a student to join a lab is a mutual decision between the student and the faculty member, both the student and the faculty member can terminate this relationship if absolutely necessary. It is the job of the Graduate Program Director to act as confidential advisors to both the students and the training faculty and as mediators between these two parties. Students and mentors are encouraged to seek out the Program Director(s) at the first signs of difficulty, well before the situation becomes so serious as considering the termination of the working relationship. In the event that the issue involves a Program Director and his/her student, the Chair of Biology or another member of the Program Executive Committee should be consulted as the confidential mediator.

Student Initiated Transfers

Students must first obtain permission of the CMDB Program Director before they are allowed to change thesis labs. Students are STRONGLY ENCOURAGED to seek the guidance of the
Program Director(s) and other faculty and staff as they consider these decisions. In addition, the student should have a clear plan for their new thesis research and potential thesis advisors. Students are not allowed to be without a thesis lab for more than two weeks, and preferably they would switch to a new lab immediately upon leaving their old lab. Once a student has chosen a new thesis lab, there will be a probationary period of six weeks during which the student and their new advisor decide if the student will conduct their thesis research in the new lab. If so, the student and advisor should sign a “Thesis Research Advisor Selection Form” and submit it to the CMDB Program Academic Coordinator. The new thesis lab will be responsible for future funding for the student. If the student will not join the current lab, the student may be permitted to identify one additional lab to consider for their thesis lab. In this case, there will be a probationary period of 4 weeks during which the student and their new advisor decide whether the student will conduct their thesis research in the new lab. The CMDB Program will only provide a maximum of 12 weeks of funding for students who decide to switch labs. If, after 12 weeks, the student has failed to find a new thesis lab, funding will be withdrawn and the student may be dismissed from the CMDB Program.

Faculty Initiated Transfers

CMDB faculty must first obtain permission from the CMDB Program Director before they are allowed to dismiss a student from their lab. Faculty are STRONGLY ENCOURAGED to seek the guidance of the Program Director(s) as they consider these decisions. Once such a decision has been approved, the faculty member may be liable for funding the student for up to 12 weeks as the student seeks a new thesis lab. If a student is dismissed from their thesis lab with the permission of the CMDB Program Director, they can appeal this decision to the Program Executive Committee. If a student is dismissed from their thesis lab, then the requirements for finding an alternate thesis lab described in “Student Initiated Transfers” above apply.