# Immunology & Molecular Pathogenesis Program Handbook 2022-2023

## Laney Graduate School Graduate Division of Biological & Biomedical Sciences



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#### I. PROGRAM ADMINISTRATION

#### A. ELECTION PROCEDURES

#### 1. Eligibility

All candidates for IMP executive offices must be full members of the IMP faculty. Following section II.C.6 of the GDBBS Handbook, candidates for the positions of Program Director and for both DGS positions must be approved by the GDBBS Director prior to the opening of balloting.

#### 2. Voting rights

Only full IMP faculty members will be entitled to vote in IMP executive office elections.

#### 3. Nominations and Time of Elections

Nominations for open IMP executive offices will open on the first Monday in June of each year. Only full IMP faculty members can nominate candidates, and qualifying individuals can nominate themselves. Nominations do not require a second and are regarded as confidential. Nominated candidates must be full faculty members of IMP. On that day, the IMP Program Administrator will announce the opening of nominations by email on the IMP faculty listsery. Nominations will close on the second Friday following the opening of nominations. By 5 pm of that day, all candidates standing for election must send an updated CV in the Emory SOM format to the IMP Program PA. Candidates may also wish to provide an optional statement of candidacy.

On the third Monday of June, the IMP Program Administrator will announce the opening of elections on the IMP faculty listsery. Elections for all offices will be announced in a single email. The email will include candidate CVs and optional letters of candidacy as attachments. Balloting will be open until 11 pm the following Sunday.

#### 4. Voting mechanics

Voting for all positions will be collected on a single Microsoft Office 365 Form. Only the Program Administrator and the GDBBS Director will have access to the individual ballots, which will otherwise be regarded as confidential. To ensure ballot integrity, the form will include a required field for the voters name. Votes will be tallied by the IMP Program Administrator on the fourth Monday of June, and the results will be sent to the GDBBS Director for final approval by 5 pm on the Wednesday of that week. In the unlikely event of a tied election, the winner shall be determined by a coin toss. On Thursday of that week, the IMP Program Administrator will announce the results, including the specific vote tallies, of the elections by email to the faculty listserv.

#### 5. Assumption of offices

Newly elected candidates will assume office on the first Monday of July.

#### B. PROGRAM LEADERSHIP ROLES

#### 1. Program Director

**Description**: The Program Director works in conjunction with the two DGSs, Executive Committee and Program Administrator to oversee all aspects of the program. In this capacity, the Director shall chair the Executive Committee, which includes presenting

and overseeing subsequent votes on any program decision/change under consideration by the committee. The Program Director may advise the DGS in student matters if asked. S/he shall oversee the appointments of any new faculty members as well as faculty compliance with program expectations and communicate those expectations if/when needed. S/he will chair 1/3 of the qualifying exams and serve on any qualifying exam retake committee. S/he may provide feedback to the Head Recruiter if asked and will oversee the program budget. Finally, the Program Director serves on the Executive Committee of the GDBBS, and serves as the IMP liaison to the GDBBS.

**Years of Service**: The Director will be elected for a three-year term with the opportunity to be re-elected if desired at the end of each 3-year term.

**Election Procedures**: The Program Director is selected by a vote of the Program Faculty held once every three years.

Current: John Altman

Year Elected: 2020

End of Term: 2023

#### 2. Director of Graduate Studies - Pre-Qualifying Students

**Description:** The DGS for pre-qualifying students serves as an advisor for students prior to the students passing the Qualifying Exam. S/he will organize new student orientation and advise 1<sup>st</sup> year students on lab rotation selections and advisor selections. S/he will organize 2<sup>nd</sup> year qualifying exams and will chair 1/3 of the qualifying exams and serve on any qualifying exam re-take committee. The DGS will serve as the instructor for rotations, research, and seminar for students in years 1 & 2. In this capacity, s/he will be responsible for assigning and posting grades for those courses. Finally, any student plans to deviate from the program timeline as outlined in the handbook should be brought to the DGS for consideration, advice and approval.

**Years of Service:** The DGS will be elected for a three-year term with the opportunity to be re-elected if desired at the end of each 3-year term.

**Selection Procedures:** The DGS of Pre-qualifying students is selected by a vote of the Program Faculty held once every three years.

**Current:** Mehul Suthar

Year Selected: 2021

End of Term: 2024

#### 3. Director of Graduate Studies- Post-Qualifying Students

**Description:** The DGS for post-qualifying students (DGS-post) is the primary program resource for students after they have passed their qualifying exam. In this capacity, the DGS of Post-Qualifying Students handles student issues such as academic probation, seminar attendance exceptions, requests to defend dissertations, leaves of absence, and other student support needs as they arise. They will also hold cohort-specific meetings with each cohort years 3+ each fall and may choose to meet individually with all students

years 6+ to ensure the students know what is expected in their upcoming year and offer advice accordingly. S/he will chair 1/3 of the qualifying exams and serve on any qualifying exam re-take committee. DGS-post will serve as the instructor for research and seminar for students in years 3+. In this capacity, s/he will be responsible for assigning and posting grades for those courses. Finally, any student plans to deviate from the program timeline as outlined in the handbook should be brought to the DGS-post for consideration, advice and approval.

The DGS-post is also charged with conducting monthly reviews of student progress using the IMP Student Progress spreadsheet maintained by the Program Administrator. After reviewing progress, the DGS-post is responsible for communicating with students and mentors regarding any delinquencies in meeting Program, Division, and/or LGS progress requirements including but not limited to the submission of qualifying exam forms, the formation of the student's dissertation committee, committee meetings, application for candidacy, submission of proposal, and introductory chapter. The DGS-Post ensures the Program Administrator is copied on all information from students so the spreadsheet is updated accordingly and kept accurate. The DGS-post shares any concerns about student progress with the Director in a timely manner. The DGS-post may also report out regarding any students of concern at the EC meetings.

**Years of Service:** The DGS-post will be elected for a three-year term with the opportunity to be re-elected if desired at the end of each 3-year term.

**Selection Procedures:** The DGS-post is selected by a vote of the Program Faculty held once every three years.

**Current:** Jacob Kohlmeier

Year Selected: 2021

End of Term: 2024

#### 4. Head Recruiter

**Description:** The IMP Head Recruiter attends Division level meetings related to recruitment, learns how to use key recruitment tools, such as the Filemaker Application Tracker, reviews all applications to the program, and is the primary point person for prospective students. The head recruiter chairs the recruitment committee. In this capacity, they review and triage applications and identify the applications on which members of the committee will conduct additional review. They run the recruitment committee meeting to select interviewees as well as the follow up meeting(s) to select offers of admission and fellowship nominations. They work with the Program Administrator to plan recruitment activities, monitor the budget, and provide regular and consistent communication to interviewees about recruitment dates, activities, and follow up plans. In conjunction with the Program Administrator, they oversee & communicate interview offers, offers of admission, and fellowship nominations to both the applicants & GDBBS.

**Years of Service:** The Head Recruiter will be elected for a three-year term with the opportunity to be re-elected if desired at the end of each 3-year term.

**Election Procedures:** The Head Recruiter is selected by a vote of the Program Faculty held once every three years.

**Current:** Cheryl Day

Year Selected: 2020

End of Term: 2023

#### 5. At-Large Members of the IMP Executive Committee

**Description**: There shall be six At-Large members of the IMP Executive Committee. Each of the At-Large Members of the IMP Executive Committee shall serve as the chair of one of the IMP Subcommittees. Subcommittee chair assignments will be determined annually by the members of the Executive Committee, with requests for assignments given priority on a seniority basis. The IMP Director shall have the final authority to make committee assignments should conflicts arise.

**Years of Service**. Each At-Large member shall be elected to a three-year term with the opportunity to be re-elected if desired at the end of each term.

**Election Procedures.** The terms of the At-Large members of the IMP Executive Committee shall be staggered such that there are elections for two At-Large positions each year.

**Vacancies**. The IMP Director shall have the power to appoint members to fill At-Large positions that are vacated for any reason. The appointed member shall serve until the next scheduled election for the member that they replaced, ensuring that terms remain staggered on the designed basis.

**Current**. Haydn Kissick (2020), Luisa Cervantes Barragan (2020), Chrystal Paulos (2021), Rheinallt Jones (2021), Chaoran Li (2022) and Rustom Antia (2022). (years indicate the year the officer was elected).

#### 6. Student representatives

**Description**. There shall be two student representatives that serve on the IMP Executive Committee. They are expected to attend all meetings of the Executive Committee, but at the discretion of the Program Director, they will be dismissed from sections of meetings where individual students in the program are discussed. They will have full voting rights within the Executive Committee on all issues except those involving individual students.

**Years of service**. Each student representative shall be elected to a two-year term, with elections for a single position held in alternating years. Generally, one position shall be regarded as the junior representative, and one as the senior representative.

**Eligibility**. All candidates for student representative positions must be in good academic standing and must have completed at least one full year of the program. Rising second year students are considered eligible.

**Election procedures**. Each June, the existing student representatives will coordinate with the Program Administrator to elect a new representative to replace the outgoing

representative. This shall involve an open nomination period and an election period. The entire process should be completed by the end of June.

#### C. IMP EXECUTIVE COMMITTEE SUBCOMMITTEES

The six subcommittees of the IMP Executive Committee are described below. Unless otherwise specified, the Chair of each Subcommittee shall have the power to recruit and appoint additional Subcommittee members selected from the general IMP Faculty to serve one-year terms.

#### 1. Curriculum

The Curriculum Subcommittee shall be responsible for conducting an annual review of the IMP curriculum and for recommending curriculum changes to the IMP Executive Committee. The annual review shall be presented to the IMP Executive Committee at the Spring EC meeting. The Curriculum Subcommittee shall be chaired by one of the elected At-Large members of the IMP Executive Committee. Each of the current directors of any IMP course shall serve as members of the Curriculum Subcommittee, and the Subcommittee Chair shall have the authority to appoint additional subcommittee members from the general IMP faculty at-large.

#### 2. Faculty Membership

The Faculty Membership Chair is charged with reviewing any applications from Emory faculty to join the IMP Program and with making recommendations to the Executive Committee, first, as to whether to proceed with the faculty seminar, and later, as to the suitability for admission. To meet GDBBS requirements, the Faculty Membership Chair is also charged with conducting a triennial participation survey of all IMP faculty. The results of that survey shall be reported to the Executive Committee; the Executive Committee shall have the authority to determine if any corrective action is necessary. The Faculty Membership Chair shall appoint a Membership Committee of at least three tenured faculty members to assist in these reviews.

#### 3. Communications

The Communications Director is charged with oversight of the IMP website and with interfacing with GDBBS and/or LGS staff to ensure accuracy and compliance with any issues surrounding the website or other communications. This will require monitoring the content of the web site and liaising with GDBBS to accomplish needed edits and updates. The Communications Chair may elect to produce an IMP Newsletter. The Communications Chair may appoint a Communications Committee of faculty members and students as deemed necessary.

#### 4. Seminars

**Description**. The IMP Seminar Subcommittee is responsible for planning the Immunology and Molecular Pathogenesis Distinguished Scientist Seminar Series. The Seminar Subcommittee Chair may appoint additional IMP Faculty Members and two students to the Seminar Subcommittee, but the Subcommittee Chair shall have final authority for the seminar program, including choice of invited speakers.

Criteria for choosing outside seminar speakers should balance the needs of the IMP faculty and students, with speakers and topics appealing to the broadest possible audience of the full program membership. The Seminar Director will solicit nominated

speakers from the full IMP program via an email sent to the program listserv. They will also work with department chairs that elect to co-sponsor speakers. Finally, they will work with student representatives responsible for planning the annual student invited seminar speaker. They will be assisted in these tasks by the Program Administrator.

Faculty and student hosts will be assigned for each invited speaker. The faculty host is responsible for (a) planning the scientific itinerary for the speaker, including the dinner, and (b) posting a brief description of the speaker/topic to the IMP seminar listserv advertising the seminar. The student host will assist with activities throughout the day of the visit including but not limited to escorting the guest on campus, organizing the student lunch, and attending the dinner.

The guest list for dinner must comply with GDBBS guidelines. Per GDBBS, reimbursement for meals may not exceed \$60/person and at least one IMP student must be included in any program expenditures, including meals.

The Program Administrator will plan travel and lodging as well as create flyers & oversee their distribution on the seminar listserv and program website. The Program Administrator will also work with the faculty host to finalize & distribute the guest's itinerary and will monitor the budget & advise the Seminar Director accordingly.

#### 5. Retreat

The Retreat Subcommittee will be responsible for organizing IMP Retreats. They shall appoint at least two additional IMP faculty members and four IMP students to the Faculty Retreat Subcommittee. The Retreat Subcommittee is responsible for proposing retreat agendas, budgets, and logistics to the IMP Executive Committee for approval. After approval, the subcommittee will oversee the communication and execution of the approved plans.

#### 6. Diversity, Equity, and Inclusion

The DEI subcommittee will be chaired by a member of the IMP Executive Committee and will include faculty and student representatives. The DEI subcommittee is committed to fostering a fair, accessible, inclusive and positive educational environment for the IMP graduate student community, in collaboration with Executive Committee members and other university partners. The DEI subcommittee chair will work with the Head Recruiter to facilitate recruitment of students from historically underrepresented groups in STEM, interface with other GDBBS program DEI chairs and serve as the program liaison for DEI initiatives at GDBBS and the LGS. DEI subcommittee members will familiarize themselves with Emory's DEI mission and available resources, engage in relevant trainings offered at Emory (e.g. Unconscious Bias and Creating an Environment of Courtesy and Respect), participate in IMP/GDBBS/LGS activities related to recruiting, nurturing and sustaining students from underrepresented groups, increasing diversity of invited seminar speakers and promoting a diverse inclusive and equitable IMP community.

#### 7. Grievance Subcommittee

The Grievance Subcommittee shall consist of the chairs of the Seminar, Diversity and Inclusion, and Retreat subcommittees. Grievance policies are discussed in section VI.O below.

#### 8. Ad hoc committees

Additional subcommittees may be created on an *ad hoc*, as needed basis, at the discretion of the Program Director.

#### D. CURRENT PROGRAM OFFICERS

Office	Term	Occupant	Department	Email	Phone
Program Director	2020- 2023	John Altman	Microbiology and Immunology	jaltman@emory.edu	404-727- 5981
DGS – prequal	2021- 2024	Mehul Suthar	Pediatrics, ID	MSUTHAR@emory.edu	404-727- 3052
DGS – postqual	2021- 2024	Jacob Kohlmeier	Microbiology and Immunology	jkohlmeier@emory.edu	404-727- 7023
Recruiter	2020- 2023	Cheryl Day	Microbiology and Immunology	CDAY@emory.edu	404-727- 4374
At-large (Seminars)	2020- 2023	Luisa Cervantes Barragan	Microbiology and Immunology	LCERVAN@emory.edu	404-712- 8891
At-large (Curriculum)	2020- 2023	Haydn Kissick	Urology	HKISSIC@emory.edu	617-259- 8364
At-large	2021- 2024	Chrystal Paulos	Surgery: Oncology	CPAULOS@emory.edu	202-557- 1868
At-large	2021- 2024	Rheinallt Jones	Pediatrics: Gastroenterology	rjones5@emory.edu	404-727- 7231
At-large	2022- 2025	Chaoran Li	Microbiology and Immunology	chaoran.li@emory.edu	404-727- 8692
At-large	2022- 2025	Rustom Antia	Biology	rantia@emory.edu	404-727- 1015

#### **Student Representatives**

Rachel Pearson, Senior Representative

rachel.anna.pearson@emory.edu

Julia Bazzano, Junior Representative

julia.bazzano@emory.edu

#### **Program Administrator**

Rathan Kersey GDBBS 727-2678

1462 Clifton Rd. Suite 300A rathan.lee.kersey@emory.edu

Program Website: <a href="http://biomed.emory.edu/PROGRAM\_SITES/IMP/index.html">http://biomed.emory.edu/PROGRAM\_SITES/IMP/index.html</a>

## E. MEETINGS OF THE FULL FACULTY, THE EXECUTIVE COMMITTEE, AND STUDENT/FACULTY TOWNHALLS

- 1. There shall be at least one meeting of the full program faculty each year, to be held within one month of the beginning of the fall semester.
- 2. The Executive Committee shall meet at least twice per year, once in the fall semester and once in the spring semester.
- 3. There shall be at least one Townhall meeting of the full program faculty and student body each year, to be held within one month of the beginning of the fall semester.
- 4. Additional meetings of the faculty, the executive committee, or of the faculty and student bodies may be held at the discretion of the Program Director.
- 5. The Program Director will chair all meetings and be responsible for setting their agendas.

#### II. ADMISSION TO GRADUATE STUDIES

#### A. ADMISSION REQUIREMENTS

The graduate Program in Immunology and Molecular Pathogenesis is designed for those pursuing a PhD or the combined MD-PhD. The Program's Recruitment Committee considers prior research experience to be the most important factor in the application review process, followed in order by letters of recommendation from research mentors, transcripts and GPA, other relevant letters of recommendation, if any, and honors and/or leadership positions. A successful applicant typically has a strong science background including coursework in biology, inorganic and organic chemistry, biochemistry, and molecular biology. Deficiencies in course background may be made up during the first year of graduate study upon recommendation of the Executive Committee. We do not admit students for a Masters Degree.

### B. ADMISSION OF STUDENTS ARRIVING WITH NEW EMORY FACULTY MEMBERS

- If the proposed student has passed their qualifying exam at their current institution, IMP strongly recommends they complete their degree through their current university.
- If they would like to transfer into the IMP Program, they must complete the typical application process. They should contact the Director of Admission for the Graduate Division of Biological and Biomedical Sciences, as well as the IMP Recruiter, Director, and Program Administrator to notify them in advance of their application and situation.
- As a courtesy, the Program may review the student's credentials prior to applying
  to provide guidance to the incoming faculty member and proposed student as to
  the appropriateness of the student applying to Emory.

#### III. PROGRAM REQUIREMENTS

A summary of requirements for obtaining a PhD degree from the IMP program are:

1. Obtain a grade of "B" or better in all courses including laboratory rotations

- 2. Choose a dissertation advisor
- 3. Pass the oral qualifying exam
- 4. Form a dissertation committee & hold committee meetings (required frequency described below)
- 5. Develop a committee-approved dissertation proposal
- 6. Apply for Candidacy
- 7. Submit a review of the literature
- 8. Participate in the academic events of the program, which includes seminars, Research in Progress presentations, journal clubs, etc.
- 9. Write and successfully defend a dissertation
- 10. Fulfill LGS requirements, specifically the Jones Program in Ethics, TATTO, and final dissertation and graduation requirements.

Each requirement is explained in more detail below. Please refer to the current IMP Student Timeline available on the <a href="IMP website">IMP website</a> for current due dates pertaining to each requirement.

#### A. REQUIRED COURSEWORK

The curriculum detailed below satisfies all coursework credit hours and IMP program course requirements in the first two graduate years. However, students may enroll in additional GDBBS courses after the 2nd year with the approval of their advisor and the post-qual DGS.

#### 1. PhD Course Requirements

#### Semester 1 (Fall – registered by the Program Administrator)

Title	Number	Credits
Concepts of Immunology	IBS 542	4
Laboratory Rotations	IMP 597r	1
Colloquium in Immunology	IMP 792r	2
Statistical Rigor, Reproducibility, and Experimental Design for Biomedical Data Analysis	IBS 519	3
Advanced Graduate Seminar	IMP 790r	1
Jones Program in Ethics	JPE 600	0

## Semester 2 (Spring. Students register themselves beginning in Spring of Year 1)

Title	Number	Credits		
Current Topics in Immunology	IBS 747r	5		
Advanced Graduate Seminar	IMP 790r	1		
Laboratory Rotations	IMP 597r	1		
Suggested electives				
Virology	IBS 513	5		
Other electives				
Stat Design and Analysis of Experiments	IBS 538	4		

Virology is strongly suggested for most IMP students. Students who do not elect to take it should seek out alternatives with the DGS.

#### Semester 3 (Fall)

Title	Number	Credits
Cell Biology of Immunologic Processes	IBS 543	2
Annual Reviews in Immunology	IBS 777r	2
Colloquium in Immunology	IMP 792r	2
Advanced Graduate Seminar	IMP 790r	1
Advanced Graduate Research	IBS 699r	4
TATTO (more info below)	TATT 600	1
TATTO	TATT 605	2

#### Semester 4 (Spring)

Title	Number	Credits
Hypothesis Design & Scientific Writing	IBS 522R-02P	4 credits
Advanced Graduate Seminar	IMP 790r	1 credit
Advanced Graduate Research	IBS 699r	1 credit
TATTO (if not completed in fall)	TATT 605	2 credits
Other electives		
Stat Design and Analysis of Experiments	IBS 538	4 credits

#### Years 3+ (Fall & Spring)

#### **Prior to submitting Application for Candidacy:**

Title	Number	Credits
Advanced Graduate Seminar	IMP 790r	1 credit
*Adv. Graduate Research	IBS 699r	8 credits

#### **After submitting Application for Candidacy:**

Title	Number	Credits
Advanced Graduate Seminar	IMP 790r	1 credit
*Dissertation Research	IMP 799r	8 credits

<sup>\*</sup>Research credits are variable and should be adjusted based on any additional electives the student may take. Total credits should be at least 9, or, if exceeding 9, be as close to 9 as possible for each semester in years 3+.

Over the summer, students will register for 9 credits of research. Pre-candidacy students should register for Advanced Graduate Research, IBS 699r. Post-candidacy students should register for Dissertation Research, IBS 799r.

Students can be exempted from specific required courses if it is established that equivalent previous course work has been satisfactorily completed. Other electives would then be available for the student to substitute for the exempted required course. This must be approved in writing by the Director of Graduate Studies and the faculty advisor.

#### **Electives**

Electives are to be decided jointly between student and advisor.

#### **Possible GDBBS Electives Include:**

Title	Number	Credits
Principles of Anti-infectives	IBS 568	
Computational Systems Biology: Modeling Biological Responses	IBS 760R	
Cancer Biology II	IBS 524	

Other electives can be found on the <u>GDBBS Internal website</u> under "Students" → "Course Information".

#### On Non-GDBBS Electives

Students wishing to take for credit electives outside of GDBBS must obtain prior approval from all of the following: (1) their research advisor, (2) an IMP DGS, and (3) the instructor in charge of the course. In general, the program does not encourage students to make substantial commitments to elective courses because these can detract from their focus on their research projects.

#### 2. MD - PhD Course Requirements

MD-PhD rotations and the first IMP courses take place in the M2 year (spring). This prepares MD-PhD students to take the qualifying exam in January of the G1 year. The following curriculum fulfills course requirements for the IMP Program.

#### **M3 Summer**

Title	Number	Credits
3 rotations		

If a student wishes to substitute another course for Virology, they may do so at the discretion of the pre-qual DGS.

#### G1 Semester 1 (Fall)

Title	Number	Credits
Advanced Graduate Seminar	IMP 790r	1 credit
Concepts of Immunology	IBS 542	4 credits
Cell Biology of Immunologic Processes	IBS 543	2 credits
Colloquium in Immunology	IMP 792r	2 credits
Annual Reviews in Immunology	IBS 777R	2 credits
Adv. Graduate Research	IBS 699r	1 credits
Jones Program in Ethics (more info below)	JPE 600	o credit
TATTO (more info below)	TATT 600	1 credit
TATTO	TATT 605	2 credits

Students may omit IBS 543 at the discretion of the pre-qual DGS and the MSTP program.

#### G1 Semester 2 (Spring)

Title	Number	Credits
Advanced Graduate Seminar	IMP 790r	1 credit
Stat Design and Analysis of Experiments	IBS 538	4 credits
Adv. Graduate Research	IBS 699r	2 credits
Hypothesis Design & Scientific Writing	IBS 522R-02P	4 credits
TATTO (if not completed in fall)	TATT 605	2 credits

#### Years G2+ (Fall & Spring)

Prior to submitting Application for Candidacy:

Title	Number	Credits
Advanced Graduate Seminar	IMP 790r	1 credit
*Adv. Graduate Research	IBS 699r	8 credits

#### **After submitting Application for Candidacy:**

Title	Number	Credits
Advanced Graduate Seminar	IMP 790r	1 credit
*Dissertation Research	IMP 799r	8 credits

Over the summer, MD-PhD students will register for 9 credits of research. Pre-candidacy students should register for Advanced Graduate Research, IBS 699r. Post-candidacy students should register for Dissertation Research, IBS 799r.

#### 3. Grade Criteria

All IMP students must meet the Minimum Standards for Academic Performance as described in the <u>GDBBS Handbook</u> and quoted below. Failure to meet these standards will trigger consequences and appeal policies also described in the GDBBS Handbook.

All GDBBS students must maintain a minimum GPA of 3.0 in each term (i.e., fall, spring and summer) of graduate work. If a student's term GPA is below 3.0 in any one term of work, that student will be placed on academic probation. Grades of U, D, or F in a course, regardless of credit hours, will also lead to the student being placed on academic probation.

With regards to cumulative GPA, GDBBS students must maintain a minimum cumulative GPA of 2.7 throughout their time in the Program, as required by the LGS.

#### 4. Jones Program in Ethics

The Jones Program in Ethics is a comprehensive program to educate doctoral students in all disciplines in the ethical pursuit of scholarly research. It is overseen by The Laney Graduate School and is made up of three components:

- 1. JPE 600 Workshop: JPE 600 is a core course in scholarly integrity, supported by the Laney Graduate School. It is required of all incoming Laney Graduate students. Incoming students are automatically registered for this course and attend it prior to the start of the fall semester.
- 2. Program-based Training: Training in ethics and the responsible conduct of research, may take place within existing courses. Additionally, first year and 5th year students are required to participate in faculty-led seminars and discussions organized by the Directors of IMP and MMG. Attending these seminars as a first year student is part of the students' requirements for candidacy. Post-candidacy, fifth year students attend again as a refresher. These seminars currently occur during the month of September on Mondays and Wednesdays at 4pm.
- 3. JPE 610 Workshops: A minimum of four topical public workshops, training sessions, or lectures must be completed before graduation. Announcements of these come from the Laney Graduate School throughout the academic year. They are listed as JPE 610 workshops and will appear on the student's transcript.
- 4. For more information, please visit the <u>JPE website</u>.

#### 5. TATTO - Teaching Experience

The Teaching Assistant Training and Teaching Opportunity Program (TATTO) provides teacher training and experience for students in the Laney Graduate School. Completion of the TATTO program is required for all PhD students. A two-day required summer course (TATTO 600) takes place prior to the beginning of the fall semester. The GDBBS Director of Student Development coordinates this Laney requirement for all GDBBS students. She will register all second year PhD students and first year MD/PhD students for the late summer coursework.

The second part of TATTO is a teaching assistantship (TATTO 605). All students in the GDBBS are required to serve as a Teaching Assistant for one semester, usually during the second graduate year. Teaching Assistants typically serve as laboratory instructors or discussion leaders for small groups. Teaching Assistants also assist students with problems during scheduled office hours, help prepare handouts and/or laboratory material, and help administer and grade exams. Students assigned to laboratory courses assist in setting up laboratory exercises, and help students understand the theoretical and practical aspects of the exercise.

For more details, see <u>Section IV.A of the GDBBS Handbook</u> or the <u>GDBBS TATTO</u> <u>webpage</u>.

If you have specific questions or requests related to your teaching assistantship, please see the Director of Student Development in the GDBBS main office.

#### **B. LABORATORY ROTATIONS**

As part of students' coursework, each student must complete a research rotation in at least 3 different laboratories of GDBBS faculty during the first year. Some students may decide to do a fourth rotation during the summer after their spring semester.

Prior to each rotation, students must consult with and obtain written approval from the Director of Graduate Studies for Pre-Qualifying Students, using the Laboratory Rotation Notification form available on the <a href="IMP website">IMP website</a>. Once approval is obtained from the DGS, students must obtain written approval from the faculty member on the Laboratory Rotation Notification form. Students must turn this form into the Program Administrator prior to beginning each rotation. See the IMP Student Timeline on the IMP website for due dates.

Laboratory rotations expose students to different research approaches and techniques of modern science. They help define a student's research interests and make it easier to select an advisor. However, the choice of advisor is not limited to the faculty with whom the student has done a rotation. Rotations also allow faculty to observe and evaluate the first-year students in their laboratory setting. Expectations for time spent in the laboratory should be clearly established between the faculty member and the student before beginning each rotation. Students are expected to be working on their projects when not attending class.

At the close of the rotation, students must fill out the *Laboratory Rotation Summary Report* which is also on the <u>IMP website</u>. On this form, students are required to write a short report of the rotation to receive a grade. The summary report needs to be signed by the rotation advisor as well as the DGS. Once the *Laboratory Rotation Summary Report* is completed, students should turn it into the Program Administrator prior to the start of the next rotation. See the *IMP Student Timeline* on the <u>IMP website</u> for due dates. Additionally, if a student receives a grade lower than an A for a rotation, faculty are required to submit written comments on rotation performance to the DGS of Pre-Qualifying Students. The DGS will consider faculty feedback, the student's summary report, and fulfillment of the rotation weeks in assigning a rotation grade.

#### C. DISSERTATION ADVISORS

The Director of Graduate Studies for Pre-qualifying students, will serve as advisor until the student has selected a dissertation advisor. Selection of a dissertation advisor takes place after the final laboratory rotation. No final commitments should be made to a faculty member by the student (or vice-versa) until this time. The dissertation advisor must be a member of the GDBBS. Although not mandatory, we strongly encourage students to select an advisor who is a faculty member of the IMP Program. Once students have selected their advisor, they must formalize this relationship by completing the *GDBBS Advisor Agreement and Financial Information Form* and IMP Addendum available on the IMP website under "Resources" and "Forms and Documents".

The GDBBS form requires the signatures of the student, advisor, DGS, and department chair of the advisor. It also requires documentation of the proposed advisor's current funding.

Students should submit all documents (Advisor agreement, Financial worksheet, & IMP Addendum) to the Program Administrator as soon as plans are made. No advisor arrangements are official until the forms have completed the full approval process of both IMP and GDBBS staff.

Students who choose a dissertation advisor at the CDC must have a co-advisor who has an Emory University faculty appointment and is a member of the IMP program.

Factors you should consider when choosing a Dissertation Advisor are discussed at length in Appendix 1.

#### 1. Choosing an Advisor Who is Not a Member of IMP

Students admitted to the IMP Program are supported by the Graduate Division of Biological and Biomedical Sciences (GDBBS). As such, they may choose to do rotations or dissertation research with any faculty who are members of the GDBBS. If the student chooses to carry out dissertation work with a faculty member who is not a member of the IMP Program, three possibilities exist:

- 1. The student can find a co-advisor in the IMP program. This should not be undertaken lightly by the co-advisor, since this amounts to an agreement to support this student intellectually should problems arise.
- 2. The faculty member can join the IMP Program. This is subject to the normal procedures for inducting new faculty into the program, and is limited to faculty with training, credentials, and research support in some area of Immunology and Molecular Pathogenesis.
- 3. The student can arrange to transfer to the graduate program where the proposed advisor holds a training appointment. A letter of intent requesting the transfer should be sent to your current program, to your intended program, and to the Director of the Graduate Division of Biological and Biomedical Sciences. The Executive Committee of the intended program will review the student's progress in the IMP program and the student's record and approve or deny the transfer. It is expected that in most circumstances the transfer will be approved. Any additional requirements (course work, etc.) should be specified in writing and agreed upon by both the student and the intended graduate program.

#### 2. Transferring to a new advisor

Occasionally there are extraordinary circumstances when a student may elect to transfer from one advisor to another. Situations in which this happens include: (1) when a advisor leaves Emory for another institution and the student chooses not to follow them or (2) when differences arise between a student and an advisor that cannot be reconciled. These situations are usually addressed on an ad hoc basis. At a minimum, a student contemplating transfer to a new advisor must consult with the appropriate DGS, but we encourage the student to seek advice from other sources such as the Program Administrator, GDBBS Director of Student Development, IMP student representatives, or the IMP Director, as well. In some circumstances, a student or a potential new advisor may require the student to do a short lab rotation prior to a student formally joining a new laboratory, and the GDBBS will usually provide stipend support for a short duration until the student joins a new laboratory; this is addressed in Section IV.C.4 of the GDBBS Handbook.. Should unanticipated difficulties arise, the case will be referred to the IMP Executive Committee or to the GDBBS Director for final resolution. Once the student and new advisor have agreed on the student's placement, they should complete the GDBBS Advisor Agreement and Financial Information Form on the IMP website. They should also note that the arrangement is not official until the forms have completed the full approval process of both IMP and GDBBS staff.

When a student transfers to a new advisor, the student may also elect to make changes to their Dissertation Committee. The student should discuss this with their new advisor and formulate a plan. If the membership of a dissertation committee needs to change, students should follow the instructions on the LGS Dissertation Committee form process.

If a student transfers to a new advisor after they have had a dissertation proposal approved by their committee, the following applies:

- 1. If there is not a significant change in the dissertation project, there is no need for the student to prepare a new dissertation proposal.
- 2. If there is a significant change in the dissertation project, then the student should prepare a new dissertation proposal consisting of at a minimum an abstract and a specific aims page. The deadline for completion of this proposal is 3 months after starting in the new lab.

If a student transfers to a new lab before December 1 of Year 3, then they must complete their Review of the Literature by December 1 of Year 3 or by 9 months after starting in the new lab, whichever comes later. If the student transfers after they had already completed their required Review of the Literature, then it will be up to the student and the advisor to decide on when the student writes Chapter 1 of their dissertation.

#### D. PHD QUALIFYING EXAMINATION

An oral qualifying examination is administered to evaluate students' mastery of scientific concepts before permitting them to proceed to full-time doctoral dissertation research. If a student fails the qualifying examination, they will have one more opportunity to retake and pass the oral test.

The oral examination will assess each student's comprehensive knowledge of immunology and other pertinent scientific areas. Each student is expected to be fully-versed in immunology and virology. The primary content for these two areas is covered in the first year required courses: IBS 542- Concepts of Immunology and IBS 513-Virology. Question topics can also include biochemistry as well as experimental techniques and design. In addition to possessing a broad range of facts and knowledge, the student must demonstrate an ability to synthesize information and display systematic reasoning skills. The oral examination will be administered during the first weeks of January (Year 2 for PhD/G2 for MD-PhD).

A committee of four IMP faculty members will be assigned to administer the oral examination to each student. One member will be either the IMP Director or an IMP DGS who will serve as chairperson. Students will find out who is on their committee 1 week in advance of the exam. The committees, dates, and locations will be arranged by the DGS for Pre-Qualifying Students with administrative support from the Program Administrator. Advisors **will not** be permitted to attend the examination. The examination will begin with the student providing a five-minute overview of their current research. No slides or overhead transparencies may be used. However, it is permissible to write/draw material on the board during the examination. Each member will then be given ten minutes to individually ask questions, followed by a five-minute period when the other members can pose follow-up questions. There will be two rounds of questioning.

Students must obtain the *IMP Oral Qualifying Examination* form from the *IMP website* to present to their committee at the qualifying examination. This form, which includes the signatures of each committee member, should be turned into the Program

Administrator immediately following the exam. In the case a student fails the exam, they will have 4 weeks to complete a successful reexamination. The examining committee will provide guidance on the areas the student needs to strengthen. All attempts will be made to maintain the same committee for the retake. However, if faculty availability makes a timely re-take impossible, the DGS may choose to substitute one member. A second failure results in dismissal from the program.

#### **E. DISSERTATION COMMITTEES**

Students must select their dissertation committee before their first Research In Progress (RIP) presentation. (Spring of 2nd year for PhDs/G1 year for MD/PhDs).

The duties of the committee include assisting the student in creating and executing an original, publishable research project, assisting in the preparation of an acceptable written dissertation and administering the final oral examination (the dissertation defense). As such, this committee is vital to the progress of the student.

The overall dissertation committee must meet the following criteria:

- 1. Include 5 members total, including your advisor.
- 2. At least 3 members from the IMP program and at least 4 members of the GDBBS. Your advisor, if in IMP, counts as 1. If your advisor is not in IMP at the time you form your committee, then at least 3 of the other faculty must be IMP members.
- 3. At least 1 member who has been in the IMP program for at least 5 years and graduated at least 1 IMP student. You may contact the Program Administrator for a list of current faculty who fulfill this.
- 4. At least 4 members must be present together to hold a meeting.
- 5. If the student would like to include one member outside of Emory, they will need to follow the steps described on the LGS Dissertation Committee form for including an "outside reader". The IMP program will allow one outside reader on a committee.

Students must submit the <u>LGS Dissertation Committee</u> form to the LGS to formalize their committee selection before their first RIP. Students can access the form and instructions through the <u>IMP website</u>.

Guidelines for choosing members of Dissertation Committees are included in <u>Appendix</u> 2.

After the student and advisor have agreed upon a candidate list of members for the dissertation committee, we recommend students discuss the list with the DGS for post-qualifying students before extending invitations to serve on the student's committee and completing the LGS form.

#### F. COMMITTEE MEETINGS

In years 2 and 3, students must hold committee meetings at least once per calendar year. Beginning in year 4, students must hold committee meetings every 6 months. However, the committee may recommend more frequent meetings as needed to more closely monitor a student's progress. At least 4 of the 5 committee members must be in attendance at each meeting. If a member misses the meeting, the student and member must meet individually the week before or after the meeting so the member may review

progress, make recommendations, and sign the *IMP Committee Meeting Summary and Progress Report*. A student must have at least 3 committee meetings prior to the dissertation defense.

At least 1 week before each meeting, students will provide a 3-page maximum summary report detailing their progress. This report should briefly remind the committee of the aims of the project, summarize the progress made since the last meeting, and summarize the next steps the student intends to take. This report needs to be submitted to each committee member no less than 1-week before the student's meeting.

Students must incorporate the IMP Committee Meeting IDP Slides as part of their presentation to their committee at every committee meeting. Templates for these slides can be found on the IMP website.

At the end of the meeting, the student should briefly summarize the committee's feedback on the *IMP Committee Meeting Summary and Progress Report* form. Then, each member should review the summary to ensure the student correctly captured the important steps and sign the form.

Finally, students should submit (1) the progress report, (2) the slides presented at the committee meeting, and (3) the signed Committee Meeting form to the Program Administrator within the week following their committee meeting. This form is required as documentation of each meeting and is available on the IMP website.

#### G. DISSERTATION PROPOSAL

In spring of Year 2 (G1 for MD/PhD students), a student's committee is formed and should attend the first RIP. The first committee meeting should then happen no later than July 1 following the first RIP. Failure to meet this deadline could jeopardize the student's stipend support.

The first meeting will involve the presentation of a dissertation proposal. The proposal should be a written grant in NIH format describing the student's proposed research. The grant should adhere to the format and instructions for NIH F award applications following the guidelines students are taught in the Hypothesis Design & Scientific Writing course. Students are encouraged to submit the proposal (or something similar) to the appropriate NIH funding agency for F award support. The student's dissertation advisor is expected to aid in the design and editing of the dissertation proposal. Thus, the proposal should be written by the student with scientific input and editorial advice from the dissertation advisor. The presentation of the proposal signals the start of a collaborative interaction between the student, advisor, and committee to foster the student's independent research program and track its progress.

At least 2 weeks prior to the meeting, students should send their committee their written proposal. For the first meeting, this is in lieu of the summary report (See above in Committee Meetings.)

Each student should prepare an oral slide presentation of their proposal. This presentation should provide a brief overview of the field of interest, followed by a presentation of each specific aim, hypotheses, preliminary results, and approach(s) to be used. Additionally, the slide presentation must also include the IDP slides mentioned above and available on the **IMP website**.

At the meeting, students must provide and have signed by the committee the *IMP* Evaluation of Dissertation Proposal Form and the *IMP* Committee Meeting Summary and Progress Report. Student can print these from the **IMP** website.

Once approved by the committee, the student should submit the completed *IMP Evaluation of DissertationProposal Form* and *IMP Committee Meeting Summary and Progress Report* to the Program Administrator. Additionally, students should submit an electronic version of their proposal to the Program Administrator to be kept on file for reference, if needed, by the Program or dissertation committee.

#### H. CANDIDACY

All students are required to follow the Laney Graduate School requirements for candidacy. Most IMP students will reach candidacy by the end of their second year.

To be eligible for candidacy, the student must meet the following requirements:

- 1. Complete all program requirements for candidacy: coursework and other training required by the degree program, including program required JPE training
- 2. Complete qualifying examinations required by the degree program
- 3. Select Dissertation Committee and submit LGS Dissertation Committee Form
- 4. Complete TATTO 600, TATTO 605, and JPE 600
- 5. Resolve any Incomplete (I) or In Progress (IP) grades
- 6. Be in good standing with a minimum cumulative 3.0 GPA
- 7. Have earned at least 54 credit hours at the 500 level or above

Further details, including penalties for not meeting the LGS deadline, can be found at on the LGS website.

This policy is effective starting Fall 2017 (including students who participated in Early Start in Summer 2017). For students who entered their program prior to Fall 2017 they must reach candidacy no later than August 1 before their fifth year of study.

#### I. REVIEW OF THE LITERATURE

Third year students (G2 MD/PhD students) are required to write a 30-page (double spaced) review/overview of the literature critical to the chosen area of research. This review will constitute the first, introductory chapter of the student's dissertation. The student and advisor are strongly encouraged to submit this review for publication. Reviews are due by December 1 of the third year for PhD students and December 1 of the second year for MD/PhD students. Students should submit an electronic copy to the Program Administrator no later than December 1 to ensure completion of this program requirement.

#### IV. AWARDING OF THE PHD DEGREE

Students must complete their degree in accordance with the timelines and requirements of the Laney Graduate School. Please see the <u>LGS handbook</u> and <u>degree completion page</u> for current details.

#### A. FORMAT OF THE WRITTEN DISSERTATION

The format of the dissertation must be approved by the dissertation committee before the student begins writing. A copy of the dissertation in final form must be submitted to all members of the committee at least two weeks before the defense. Before distribution to the dissertation committee, the dissertation must be edited and approved by the dissertation advisor. The written dissertation must conform to Laney Graduate School Guidelines found on the LGS website; in general it will consist of an original account of the background, approach, experiments, and conclusions of the dissertation research. Published papers written by the student may be reformatted as chapters in the dissertation, but an original introductory chapter (review of the literature) and concluding chapter must be added. The final chapter (~10 pages) should not simply summarize the conclusions made in the dissertation, but must also provide a scholarly discussion how these conclusions advance the field of study. The dissertation must indicate which figures and tables are based on data generated by the PhD candidate.

#### **B. PUBLICATION GUIDELINES**

Publications are an important part of the training and success of IMP students. It is expected that students will have multiple publications (two first-author publications, review article from introduction chapter, and additional collaborative works) accepted in peer-reviewed journals at the time of their dissertation defense. However, the number of accepted papers only serves as a guideline for signaling students' progress for defense and should not be considered the sole requirement to secure permission to defend. Students at this point must convince their committee and the IMP Program that they are operating at the independent level of a postdoc. In extenuating circumstances, a student and advisor may petition the IMP Executive Committee for permission to defend with less than 2 papers, however it is unlikely that this will be permitted for students who have not successfully published a single first author peer-reviewed scientific report.

#### C. ORAL DEFENSE

The final oral examination (dissertation defense) is scheduled by the student with the approval of the dissertation committee. The examination is administered by the committee, with the advisor serving as chairperson. No more than one member of the dissertation committee may be absent from the oral defense. The examination is public and anyone attending may ask questions. After the public presentation, the audience is dismissed and the dissertation committee will further question the candidate. The success of the defense is determined by majority vote of the dissertation committee.

#### D. OTHER REQUIREMENTS

Student should ensure they have met all requirements of the Laney Graduate School, the GDBBS, and the IMP program. They should refer to the "Planning for Graduation" checklist available on the IMP Student Timeline on the IMP website.

Please note, it is the student's responsibility to provide programs for the audience on the day of the defense. It is the advisor's responsibility to plan/provide a celebration following the defense if the student and advisor determine they would like to do this.

See Appendix 3 for guidelines on presentations for the oral dissertation defense.

#### V. TERMINAL MASTER'S DEGREE

In the event that a student chooses not to complete the requirements for a PhD the student may apply for a Masters Degree. The student should discuss this decision with the DGS before making any concrete plans. Award of the Masters Degree will require that: (1) the student successfully completes 2 years of course work; (2) passes the qualifying examination; and (3) completes a written thesis that is approved by the student's thesis committee (formerly dissertation committee). The student is required to defend the thesis in a final oral examination that will be comprehensive in scope. The examination is public and anyone attending may ask questions. The student is expected to achieve a high degree of expertise in the area of Immunology and Molecular Pathogenesis. However, the scope and depth of the Master's thesis is expected to be significantly less than that of the PhD dissertation.

#### VI. OTHER ACTIVITIES AND INFORMATION

#### A. PROGRAM SEMINARS

IMP Program seminars given by faculty, invited speakers, and students are held each Tuesday at 4 pm in the Whitehead Auditorium (unless otherwise notified via IMP Listserv) throughout the academic year. Students may meet with guest speakers at lunches and dinners associated with the seminar, and students are encouraged to participate in the scientific discussions. Additionally, there will be one student-invited speaker each year. The rising 4<sup>th</sup> year students will be responsible for coordinating this speaker's visit.

#### 1. Student Invited Speaker

In the spring or summer of the third year, students in that cohort will meet with the seminar director to discuss who they would like to invite for the next year's series. Students will submit a list of 5-6 potential invitees to the seminar director. This list will be reviewed by a sub-committee of the IMP Executive Committee for final approval before any invitations are sent. The purpose of this review and approval process is to ensure guests on the list are in the best interest of the Program as a whole and to expedite the invitation process so students can move through their list without having to re-group and seek approval before each invitation is issued.

#### 2. Research In Progress Seminars (RIP)

As mentioned above, the Tuesday seminar series includes student presentations. These are referred to as Research in Progress or RIP seminars. In these seminars, students present their ongoing research to other IMP predoctoral students, postdoctoral fellows, and faculty.

Guidelines for RIP are as follow:

- 1. The first RIP for each student will be in the Spring of the 2nd year (G1 for MD-PhD students).
- 2. RIP seminars will begin at the start of the fall semester each academic year.
- 3. Students will select a date for their RIP from blocks of dates allotted for their cohort.

- a. Students will pick dates most appropriate for attendance by their advisor and committee members.
- b. Students must send their RIP title to the Program Administrator no later than 1 month before their talk. This allows the Program Administrator to maintain the program website calendar and prepare announcements for each month's presenters.
- c. Any changes to the RIP schedule must be arranged by the student with another student within their class year. This change must be made no later than four weeks before their scheduled RIP, have the approval of the DGS, and include notification of any change provided to the IMP Program Administrator.
- d. Students within their last year of the Program are required to present an RIP.

#### 3. Grading for Seminar Series

The IMP Seminar Series is a required course throughout students' time in the Program. As such, students should refer to the syllabus for the current academic year to ensure they are meeting course requirements and are knowledgeable about grading procedures. The syllabus will be distributed by one of the DGSs on the student listserv prior to the start of the academic year. Students should direct any questions about course requirements and grading to their DGS.

#### **B. MEMBERSHIP OF PROFESSIONAL SOCIETIES**

It is recommended that students join at least one professional society. Many have trainee membership categories that do not cost more than \$50 per annum in dues. However several offer additional sources of travel funding or funding that can be applied for to travel to other labs to learn specific techniques. Additionally several of these societies hold annual meetings students can attend to present their research to a wider audience within their chosen field of research.

Some of the more popular societies joined by IMP students are:

American Association of Immunologists:

American Society for Microbiology:

American Society for Virology:

American Society of Transplantation:

http://www.asi.org/

http://www.asv.org/

https://www.myast.org/

#### C. REGIONAL AND SCIENTIFIC MEETINGS

Students should visit the <u>Professional Development Support Funds</u> webpage for guidelines on how to apply for Professional Development Support funds from the Laney Graduate School. Students should read all of the information so they understand the policies and procedures. Students may still apply for additional funds through the <u>Graduate Student Council website</u>. The IMP Program and GDBBS do not provide travel funds.

When the application for funds has been completed bring it and all required documents to the Division Business Manager (located in the Dental Building, suite 314) by the 15th of each month. Do not take this to the Laney Graduate School. Any application received after the 15th will not be reviewed until the following month. Students will be notified about the approval of their application via email by the end of the month in which they submit their application (i.e., students who submit by October 15th will be notified by

October 30th). Inform the Division Business Manager if you have not received notification by the first day of the following month (i.e., students who submitted by October 15th and who have not heard by November 1st). Once the application is approved the Division Business Manager will send the student an email with guidelines for submitting their reimbursement upon returning from travel.

Please note the following so that the application for funding is not held up: Students must book airfare through Emory's travel site. The Graduate Division strongly encourages all students to book their travel arrangements early. Please contact the Division Business Manager if a Smartkey is required in order to process the arrangements through Emory's travel site. The student must obtain all required signatures on the application before turning it in to the Division Business Manager. There is a maximum dollar limit per year and per student career. The Laney Graduate School will keep up with the amount that has been awarded. The Division recommends that students keep up with their amount as well. The application will be updated occasionally so students should download a new application from the site each time they apply for funds.

#### D. F-GRANT APPLICATIONS

As part of IMP training, students will take the "Hypothesis Design and Scientific Writing" course in the spring semester of the second year. As part of this course students will write an F proposal that should be submitted to NIH. More information on F grants can be found on the NIH website:

F30 for MD / PhD students

https://grants.nih.gov/grants/guide/pa-files/PA-16-305.html

F31 for PhD students

https://grants.nih.gov/grants/guide/pa-files/PA-16-309.html

It will require a substantial amount of input from the student's advisor in preparing this application and students are encouraged to include this as a consideration when choosing which laboratory to join.

#### E. IMP WEBSITE

The <u>IMP website</u> contains information regarding seminars, program forms, students, faculty and their research.

#### F. IMP CALENDAR

The IMP Calendar is available on the <u>IMP homepage</u> and is maintained in the Emorysupported <u>Trumba platform</u>. The Trumba systems allows individuals to use the calendar in a variety of ways, including subscribing to the entire calendar as a whole or simply adding specific events to your own calendar.

#### G. IMP LISTSERVS

The IMP Program maintains 4 listservs for email communication to targeted audiences. These are described below.

- <u>IMPFACULTY-L@listserv.cc.emory.edu</u> is for the faculty only (and some admin assistants). All members of the listserv may post to it.
- <u>IMPSTUDENT-L@listserv.cc.emory.edu</u> is mainly for the students. A few faculty are also members, such as the DGS's, so students should not assume that posts there are invisible to the faculty. All members of the listserv may post to it.
- <u>IMPPROGRAM-L@listserv.cc.emory.edu</u> is a superset of the IMPFACULTY-L and the IMPSTUDENT-L listservs, and should be used for communications that are the same to both faculty and students. All members of the listserv may post to it
- IMMSEM-L@listserv.cc.emory.edu is mainly for seminar & defense announcements, and includes all faculty, students, admin assistants and anyone who has asked to be on it because items posted there are of interest to them. Posting privileges are limited to the Program Administrator, Director, DGS, & Seminar Director at this time.

Additionally, students will be on a cohort-specific listserv on which the Program Administrator, Director, and DGS will send cohort-specific information.

Finally, a listserv is maintained for the faculty members of the Executive Committee.

#### H. DOCUMENT SHARING AND MICROSOFT TEAMS

To share documents with IMP students and faculty that are not appropriate for a public-facing website, IMP has adopted Microsoft Teams, a platform supported by Emory's <u>Library & Information Technology Services</u> (LITS) group. All students and faculty are automatically added to the *GDBBS – IMP* team by the IMP Program Administrator. Program-relevant documents are stored in the Files tab of the "Documents and Forms" channel.

IMP is experimenting with other uses of the Microsoft Teams platform, and channels have been added for topics such as "Seminars and RIP", "Emory-wide Events", and "Fellowships".

#### I. NON-IMP TRAINING ACTIVITIES

Over the course of a student's tenure as a graduate student, opportunities may arise for a student to participate in training or professional development activities that are not part of the standard IMP curriculum and that require a substantial time commitment. Examples include serving as a Teaching Assistant beyond the requirements of the TATTO program (for credit or pay), undertaking an internship, or even registering for elective courses.

Because each of these activities may have an effect upon a student's progress towards their PhD and even affect time to graduation, a student must have the approval of both their advisor and the appropriate DGS before committing to any training activity that involves a substantial commitment of time. In order for the DGS to approve a non-IMP training activity, the student must have had a documented committee meeting showing satisfactory progress within the last year (if in years 2 or 3) or within the last 6 months (if in years 4-6), or must present documentation of one scheduled in the upcoming month. In addition, the student must be in good academic standing according to the guidelines in the GDBBS Handbook. Finally, if a student wishes to repeat an activity more than two times, a strong rationale must be provided.

Furthermore, upon completion of the activity, the student must submit the Non-IMP Training Report Cover Page and brief report (no more than 1 page) describing how the activity contributed to their training or professional development to the Program Administrator. This cover page is available on the IMP website. The advisor may be asked for a written evaluation of the effects of the activity on the student's progress as well.

#### J. TIME EXPECTATIONS FOR GRADUATE STUDENTS

Graduate study is a full-time endeavor. Students receive a stipend and are expected to be actively attending classes or conducting research and working toward the degree year-round, including the period between terms. The time between terms (along with Fall and Spring Break) is considered an active part of the training period. Students should discuss breaks with their DGS (if in the first year) or Dissertation Advisor (after advisor selection) and receive approval in advance. Breaks should typically be limited to two weeks per year. Unauthorized absences may result in an unsatisfactory research grade for the term (i.e., in fall, spring, or summer), and could thereby lead to probation.

#### K. PARENTAL ACCOMMODATION POLICY

LGS Parental Accommodation Policy is for students with substantial parenting responsibility as a result of childbirth, care of newborn, or a newly adopted child. This policy guarantees PhD students a minimal level of accommodation during the transition of parenthood. For more information on the policy, eligibility requirements, and application procedure, <u>consult the LGS Handbook</u>.

#### L. FINANCIAL SUPPORT

Stipends and tuition scholarships are intended to cover basic living expenses and tuition. With the exception of special awards, such as the Woodruff, Laney and Centennial Fellowships, stipend levels are set by the GDBBS. The faculty also encourage and assist students in obtaining individual stipend support from extramural sources, such as federal agencies and private foundations. Students are supported by the GDBBS for the first 21 months of training. Additional support will be provided by research advisors, training grants, or other sources.

#### M. EMPLOYMENT POLICY

Doctoral education demands full-time effort. Students receive stipends and tuition fellowships in order to allow them to commit the necessary time to their studies and research. Unrelated employment serves as a distraction and interferes with the ability of students to meet degree requirements in a timely manner. For these reasons, employment not directly related to students' degree requirements and professional development goals is strongly discouraged.

If additional income is absolutely necessary while a student is enrolled in the degree program, they must receive prior approval from their advisor and the Program Director/Director of Graduate Studies. The Program Director/Director of Graduate Studies has the prerogative to bring the request to the program's Executive Committee for discussion. Requests to work more than 10 hours a week require written approval from the Dean of the Laney Graduate School. Students who wish to request permission to seek employment should allow 30 days for review. In the rare cases in which approval is granted, students must ensure that employment does not interfere with research

performance, progress toward degree, or any program requirements, including seminar attendance.

#### N. GDBBS, LGS, AND SELECTED UNIVERSITY POLICIES

IMP students are responsible for knowing and abiding by policies outlined in the <u>GDBBS</u> and <u>LGS Handbooks</u>. Students should also review and abide by these selected <u>University Policies</u> that specifically pertain to areas that may be of interest to graduate students. While every effort has been made to make these guidelines as accurate and complete as possible, University policies may be subject to change without notice, and students must keep themselves up-to-date on these policies.

#### 1. Student Honor Code and Conduct Code

All students should familiarize themselves with and adhere to the Laney Graduate School Honor Code and the Laney Graduate School Conduct Code as outlined in the Graduate Student Handbook (<a href="http://gs.emory.edu/handbook/">http://gs.emory.edu/handbook/</a>). This deals with the professional standards and conduct demanded of all graduate students, as well as the procedures for reporting and adjudicating any violations. Continuance of stipend support is predicated upon satisfactory progress by the student toward a degree and adherence to the Honor and Conduct Codes.

#### O. GRIEVANCE POLICY

Students who have a grievance related to some aspect of the IMP program should submit a detailed letter describing the grievance and the relevant details to the appropriate person, as detailed below. The process starts at the IMP level, unless the grievance involves the Program Director or both DGS's of the program:

Level	Focus of Grievance	<b>Process Starts With</b>
1	Within the IMP Program	Director or a DGS, as appropriate
2	Program Director or a DGS	Director of the GDBBS
3	GDBBS or GDBBS Director	LGS Senior Associate Dean

Grievances submitted to the Program (level 1 above) will be handled as follows:

- 1. If the grievance is related to an academic component or milestone, the student should submit their grievance letter within 30 days of the date the outcome was conveyed (i.e.; notice of qualifying exam result or posting of grade to transcript).
- 2. The DGS or Program Director will attempt to resolve the grievance in conversation with the student and relevant parties.
- 3. If the grievance is not resolved in step 1, the grievance will be forwarded to the Grievance Subcommittee of the IMP Executive Committee. The Grievance Subcommittee shall consist of the chairs of the Seminar, Diversity and Inclusion, and Retreat subcommittees. The Grievance Subcommittee will review the grievance and propose an appropriate response that will be voted on by the full Executive Committee. Members of the Executive Committee that have conflicts of interest will be recused at the discretion of the Program Director.
- 4. If the student does not feel their situation is resolved at the conclusion of the Program Grievance process, they can refer to the GDBBS Grievance policy for guidance on additional options for seeking resolution.

If the grievance is submitted to the Director of the GDBBS because it involves the IMP Program Director or DGS (level 2 above), the student should refer to the grievance policy in the GDBBS handbook for guidance on how the process will proceed.

#### P. HEALTH RESOURCES AND SUPPORT SERVICES

Graduate school can be a stressful time on your body and mind. Be sure you are taking care of yourself. The Student Health Services is located at 1525 Clifton Rd. on the 2nd floor. They can be reached at (404) 727-7551 (press 1).

Additionally, the Student Counseling Center is located at 1462 Clifton Rd. on the 2nd floor. They can be reached at (404) 727-7450. A certain number of counseling sessions are free for fully registered Emory students. You can also call the Emory HELPLINE at (404) 727-4357. It is open every night during the school year from 8:30pm-1:00am.

You can also find a variety of student support services available to you by visiting <u>this GDBBS resource</u> and this <u>LGS resource</u>.

#### Q. OFFICE OF ACCESSIBILITY SERVICES (OAS)

As noted on the Office of Accessibility Services website, "Emory provides all persons an equal opportunity to participate in and benefit from programs and services afforded to others. The Office of Accessibility Services (OAS), part of the Office of Equity and Inclusion, assists qualified students, faculty and staff with obtaining a variety of services and ensures that all matters of equal access, reasonable accommodation, and compliance are properly addressed." OAS "is committed to providing access to campus resources and opportunities to allow students with disabilities to obtain a quality educational experience."

Qualified students need to register with OAS and make a request for services. Confidentiality is honored and maintained.

#### APPENDIX 1 – CHOOSING A DISSERTATION ADVISOR

One of the most important decisions you will make as a graduate student is your choice of an advisor. The dissertation advisor has the primary responsibility for direction of course and research activities necessary for a graduate degree in Immunology and Molecular Pathogenesis. The following criteria should be considered when evaluating potential advisors.

#### A. LIKELY PRODUCTIVITY LEADING TO PUBLICATIONS

What is the laboratory's track record for publication? Are these publications in quality journals?

No competitive degree in an experimental science should be awarded without one or more full-length publications resulting from research.

#### B. SUPPORT FOR THE RESEARCH

Is there a research grant, i.e., peer-reviewed funding, which can facilitate the purchase of necessary materials and services needed? How committed are funds toward other people and projects? An important measure of the quality and importance of the research effort is that external review by scientists knowledgeable in the field has led to the competitive award of money to support the project area. Such grants also reflect the judgment that training and past production of the principal investigator warrant the grant. Remember that after your second year, your stipend will derive from the grants of your advisor.

## C. NATURE, SCOPE AND TRAINING TO BE PROVIDED BY THE DISSERTATION PROJECT

How certain are positive, publishable results? Is it likely that a breadth of techniques can be learned such that future development and versatility of the student is well served?

The best training for a modern scientist must provide a breadth of research experiences that significantly augment formal lecture and laboratory courses. It can be argued that a good research problem would be sufficiently open-ended as to allow several aspects of a major question to be approached by diverse methodology. A student should discuss research projects with each of several potential mentors to see what may be of mutual interest.

#### D. SENIORITY OF ADVISOR AND LABORATORY ENVIRONMENT

What is the depth and breadth of the advisor's training and research experience? How versatile and technique-wise are associate (technician, post-doc, student) personnel in a given research group?

In general, a more established faculty member may have a larger laboratory group and potential collaborators. These must often be relied upon to teach particular techniques. The senior faculty person may be committed to a range of duties that interfere with bench supervision. Such supervision is more likely with younger faculty. Hence, if frequent or constant need for direction is desirable, one should be clear that it can be provided. The long-range value of a faculty advisor is also based in part on outside contacts and knowledge of postdoctoral and job connections. A student should meet the lab personnel of the potential advisor for a sense of the type

of supervision provided and whether there appears to be a desirable ambiance in a group.

#### E. AREA OF RESEARCH

How interesting is the subject area to you? What are its ultimate directions and goals?

#### F. COMMUNICATION

Can you communicate well with the advisor? Are clear expectations made of lab members, time in lab, protocol for lab meetings and lab notebooks, etc?

#### G. STUDENT MENTORING RECORD

Does the ADVISOR have a positive track record of working with students either in the IMP program or other graduate programs? Does the ADVISOR have a reputation for supporting student's career goals?

Students may also find the <u>LGS Mentoring Guide</u> helpful not only as they consider who they would like as their advisor, but also throughout their time working with their advisor.

Students may also take advantage of the <u>Atlanta Society of Mentors- Student Chapter</u> to discuss mentoring issues and needs and develop their own mentor toolbox.

#### APPENDIX 2 – CHOOSING A DISSERTATION COMMITTEE

Overall, you want to choose people who are available, reasonable, and with whom you feel you could work well. Each advisor will have a different level of investment into how a student forms his/her committee. So consult with your advisor first for feedback and advice. Then, consider people from both the perspective of those who will enhance your science/project AND those who will invest in your personal and professional development. You do not have to "meet" all the criteria below, but these are some elements to consider as you form your committee.

#### A. FOR SCIENTIFIC INPUT, CONSIDER INCLUDING:

- 1. An expert in your field specifically
- 2. An expert in your field more broadly
- 3. Someone up to date and interested in cutting edge methods and technology
- 4. Someone whose lab has some kind of expertise that will benefit your project

## B. FOR YOUR PERSONAL AND PROFESSIONAL DEVELOPMENT, CONSIDER INCLUDING:

- 1. Someone you rotated with or have interacted with in the past who seemed to have a personal interest in you and could be your advocate/ally if or when needed
- 2. Someone you feel comfortable talking to outside of committee meetings
- 3. Someone who is available for meetings (versus someone who is always traveling or spread thin with administrative responsibilities)
- 4. Someone who has a good track record of working with students.
- 5. At least some members familiar with program guidelines and requirements to help keep you on track

## APPENDIX 3 – GUIDELINES FOR ORAL DISSERTATION DEFENSE PRESENTATIONS

The oral dissertation defense is many things. It's a cause for celebration. It's part of a long and venerable tradition. But most of all, it's the time for the candidate to justify why they are deserving of the designation of PhD.

There are many groups in the audience of the oral presentation — family, friends, peers with expertise overlapping your research topics (and some not), and the examination committee. Sections of your dissertation defense can address each of these groups — it's perfectly OK for you to take a few minutes to explain yourself to non-experts — but the only audience that matters in the end is your examination committee, and the only responsibility you have that really matters is to convince them you have developed sufficient depth of knowledge and skills in the practice of biomedical science to be worthy of the designation of PhD.

#### APPENDIX 4 — NEXT STEPS

The question of what direction a student's career will take following completion of the Ph.D. should arise early and become increasingly important as training progresses. It is never too early to consider career options. To aid in planning for the next steps of a student's career, students should include slides related to their IDP, short term and longterm career goals at each committee meeting to be reviewed and discussed with their dissertation committee. Templates for these slides are available on the IMP website. Students receiving a Ph.D. usually take a postdoctoral research position to acquire additional techniques and expertise to further prepare for an independent research career. Such postdoctoral training is usually essential for a career in academic research. Some students take permanent positions in industrial or government laboratories immediately after receiving the Ph.D. degree, while others enter additional advanced degree programs such as medical school, or seek careers in administration of science funding or policy, or editorial positions in scientific journals. Career objectives can best be realized through careful planning. All members of the faculty stand ready to advise students on career options, and students are encouraged to seek this advice at any time during their training.

Students can learn more about career planning and professional development opportunities by visiting this <u>LGS website</u>.