Graduate Student Handbook - Spring 2024

Yale School of Medicine Department of Genetics

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1. Mission Statement

The Department of Genetics PhD Program is affiliated with Yale Graduate School of Arts and Sciences and guided by its <u>requirements and policies</u>. We are committed to creating a supportive and inclusive community that performs cutting edge research and provides training at the forefront of a variety of fields, including basic science, translational medicine, and technology development. In pursuit of this mission, we adhere to five core values:

Inclusivity: We hope to foster a community in which diverse viewpoints are valued and respected. Discrimination or harassment on the basis of personal identity will not be tolerated. We recognize that the strength of our academic community stems from the collection of unique viewpoints contributed by every member of our program.

Education: We aim to equip our trainees with a well-rounded understanding of the field of genetics with an emphasis on hands-on training and provide them with the skills necessary to pursue a wide range of career paths.

Integrity: We conduct our work in a rigorous, honest, and ethical manner. We encourage all members of our community to hold themselves and others to our high standard of integrity and academic honesty.

Collaboration: We believe that collaboration is at the core of successful research. We expect that all members of the Genetics department will foster productive, collaborative relationships based on mutual respect and constructive feedback, both within Yale and with members of other institutions.

Excellence: We continuously strive for excellence, with the goal of producing world-class researchers and research that will contribute to the forefront of scientific knowledge.

2. Overview of the PhD in Genetics

The PhD Program in Genetics is part of the Yale Combined Program in the Biological and Biomedical Sciences (BBS), and closely linked with the Molecular Cell Biology, Genetics, and Development track. The PhD in Genetics is sponsored by the Genetics Department in the Yale School of Medicine, and the PhD students are members of the Yale Graduate School of Arts and Sciences (GSAS). Students in the Genetics PhD program study a wide array of biological disciplines involving both model organisms and clinical research. Generally speaking, a student joins the PhD program because that student's chosen advisor holds an affiliation with the Department of Genetics. In addition to offering a variety of research topics, the PhD program in Genetics puts an emphasis on research training. Students in the program usually complete classwork in their First Year and finish their Qualifying Examination by the end of the fall semester of their Second Year. After this point, the student's primary focus is completing their thesis research under the guidance of the student's advisor and thesis committee. The program requires all students to submit a peer-reviewed first-author publication to a journal and/or preprint server in order to graduate. These high standards and rigorous research training prepare students in the department to secure competitive positions in academia and industry. The average time to graduation is less than six years.

3. Progression to the Ph.D.

3.1 Course Work

Each student is required to take at least five graded classes, which are typically finished by the end of the first academic year. These classes are graded Honors, High Pass, Pass, or Fail. Students must maintain a High Pass average and receive at least two Honors grades. Seminars and rotations are graded SAT/UNSAT, and do not count towards the required number of courses.

Any questions about course requirements or registration should be directed to the DGS and/or department registrar.

Year One: Students take three mandatory classes: Basic Concepts of Genetic Analysis (GENE 625), Molecular Cell Biology (CBIO 602), and Biochemical and Biophysical Approaches in Molecular and Cellular Biology (MCDB 630). Exemptions from these requirements are rare and must be negotiated with the course director and Director of Graduate Studies (DGS). In addition to these three classes, students are required to select at least two elective graduate-level courses. Final course selection is approved by the DGS.

First year students are also required to take Research Skills and Ethics I & II (GENE 900 & 901) in the Fall and Spring semesters, respectively.

While registering for classes, students should be aware that they must register for First Laboratory Rotation (GENE 911) and Second Laboratory Rotation (GENE 912) in the Fall Semester and Third Laboratory Rotation (GENE 913) in the Spring Semesters.

Year Two and beyond: In their second year, students must take the Graduate Student Seminar in the Fall and Spring (GENE 675/676).

As in the First Year, students must register in a pre- or post-candidacy research course, GENE 999 or similar, so long as they remain enrolled in the PhD Program. This 'course' corresponds to their thesis research. The specific details about research registration will be communicated to students by the Department Registrar.

All regular course requirements, including the two Honors requirements, must be completed by the end of the second year. After the requirements are fulfilled, students may take additional courses in consultation with their advisor.

Responsible Conduct of Research: The NIH requires that every student receive ethics training in their first year (GENE901). By mandate, only one absence is allowed. Students are required to take a refresher course in their 4th year. The specific details about the refresher course will be communicated to students by the Department Registrar.

M.D./Ph.D. Students: Some class requirements are different for students in the dual M.D./Ph.D. program. Please see Section 4: "The M.D. Ph.D. Program"

3.2 Research-in-Progress

Graduate students are expected to attend the *Research-in-Progress* (RIP) series held each week during the calendar year, and students in the "middle years" of their training are assigned to present throughout the

academic year. This series gives trainees the opportunity to present their research to members of the department and receive input from faculty moderators. Specific details about RIP and cohort years being asked to present will be sent out by the Department Registrar at the beginning of each academic year. For guidance on preparing RIP seminars, please consult your faculty advisor and senior graduate students in the department. The Registrar will also send guidelines as your session approaches.

3.3 Rotations

Students must complete rotations in at least three laboratories in their First Year before selecting a Thesis Advisor. Each rotation lasts about 7 weeks. Rotations provide students the opportunity to explore the research done in the laboratory, to communicate with their potential colleagues, and to interact with the faculty mentor. The goal of these rotations is to identify a laboratory where the student feels they will be able to flourish and grow as a scientist while completing their thesis research. Students are permitted a fourth rotation if none of the first three rotations were a suitable match. Fifth rotations should be considered a last resort and are very rare.

If a student feels the lab is not a good fit near the beginning of a rotation and they wish to leave the rotation to work in another lab for that period, the student should talk to the faculty advisor and DGS as quickly as possible to arrange the change.

Formalizing Selection of a Dissertation Advisor: The student's dissertation advisor must hold a primary or secondary appointment in Genetics in order for the student to join the department. Students are encouraged to discuss their interest in joining the laboratory with potential dissertation advisors throughout the rotation process. However, be aware that the decision to join a laboratory is not formalized until the end of the third rotation. This gives all students the opportunity to rotate in the laboratories in which they have interest, and accounts for changing preferences throughout the rotation process.

Note that laboratories are often limited in the number of students they can accept in a given year. As such, it is important for the student and advisor to discuss how many slots are available in a given laboratory before the rotation starts. In the end, joining a lab must be a mutually agreed decision between the student and advisor, with DGS approval.

Once a student has decided to join a lab and the advisor agrees to accept the student, the final selection must be discussed with the DGS by the end of the third rotation.

On rare occasions, students switch dissertation laboratories after thesis research has begun. This should be discussed with the DGS as soon as possible so that all options can be considered in a timely fashion.

3.4 Qualifying Examination

The Qualifying Exam (informally, QE or Quals) is an essential step in graduate student training. The overarching goal is to provide a launching pad for the student to embark on a successful thesis project. The specific objectives of the exam are to:

- 1. Provide the opportunity for students to gain fluency in literature relevant to their thesis work.
- 2. Obtain the skills necessary to critically evaluate that literature and identify major problems in their chosen field.

- 3. Use these skills to write and defend a research proposal that is intended to help them clarify the scientific questions they are pursuing and develop their thesis work into a concrete set of aims, approaches, and outcomes.
- 4. Allow the student to demonstrate they have the necessary expertise and knowledge base to carry out their thesis work.

The Qualifying Exam typically spans 8 weeks and must be completed by December 15 in the student's second year.

The Qualifying Exam consists of three parts:

- 1. A five-week reading period during which the student discusses a selection of primary research articles with each of three Qualifying Committee faculty readers.
- 2. A two-week writing period during which the student writes an original research proposal modeled on the NIH F31 NRSA application and focused on the student's planned thesis work.
- 3. A one-week presentation period during which the student prepares an oral defense of the research proposal. The Exam culminates in a two-hour oral defense of the research proposal, during which the committee provides feedback on the student's oral and written presentations and evaluates the readiness of the student to proceed with their proposed research.

Each of these parts serves an essential educational purpose. The reading period provides the student with the scholarly background necessary to identify the most important questions in their field, the skills to evaluate the literature, and the context in which they can place their own work. The writing period challenges the student to refine their project into an actionable research plan. The oral period requires the student to present and defend their work to a critical audience of scientific leaders. All of these are core competencies in biomedical research.

The Qualifying Exam requires the student's full attention. As such, the student should not take a TA position during the exam, and the student's advisor should not expect that the student engage in regular research activities during that period, although research is not forbidden.

Preparation for the Exam and The Role of the Advisor. The student should begin by meeting with their advisor and forming a comprehensive plan for the entire exam. **The advisor will not be a member of the qualifying committee and will not participate in the oral defense. However, the advisor is expected to:**

- a. Advise the student on the aims of the thesis proposal. This is an essential aspect of the advisor's role as thesis advisor and is part of the advisor's overall duty to advise the thesis student throughout their training.
- b. Advise the student on the choice of readers and reading topics.
- c. Provide the student with guidance on writing an effective research proposal. The advisor cannot provide specific written feedback on draft proposals. However, they can: Provide and discuss examples of other proposals from the lab or provided by the Department; discuss the Aims and research approach with the student during the reading period; Discuss any questions around the proposed work or the literature that may arise during the reading period.

Composition of the Qualifying Exam Committee. The student should recruit 3 faculty (including the Chair) to serve on their Qualifying Committee with input from the advisor. Any GSAS Yale faculty with relevant expertise for the thesis work is eligible to serve as a member. The student should consider multiple candidates as faculty may be unable to serve if they are already serving on another exam committee or have other commitments. Students are strongly encouraged to reach out to potential members as soon as they have formulated a thesis project with the advisor, but no later than August 1. If students are struggling to identify candidates, they should consult with the advisor or the DGSs to consider alternatives.

Scheduling. Scheduling the exam can occasionally be challenging given the responsibilities of our faculty. We recommend the student start by settling on an oral exam date with the Committee members and then working backwards to set dates for the individual reading sessions and the due date for the written exam.

The Chair of the committee must be a primary or secondary faculty member of the Genetics Department. Committee members will serve as faculty readers during the reading period and evaluate the oral and written exams as members of the Committee. As such, they must have the necessary expertise to contribute knowledge relevant to the thesis proposal. However, it is not necessary that they work in the exact same topic area. The student is encouraged to discuss potential candidates with their advisor.

After confirming the membership of the Committee, the student should request approval from the DGS via email. This email should include the following information:

Your name Your thesis lab Your original track Your timeframe for the exam (start date, end date) Committee members

The Reading Period. During the 5-week reading period, the student should meet weekly with each committee member for at least 1 hour. The student and faculty reader are free to extend the session if they both agree it would be useful to do so.

Week 1 Planning Meeting. The student will provide a short presentation of their project focusing on the scientific question and the aims. The student and faculty reader will then jointly develop a detailed reading plan on a specific scientific topic that the student and reader agree would be relevant and beneficial to the student's proposed work and training. The final reading plan should include about 3-5 papers to be discussed with each committee member **per week** at each subsequent meeting.

Week 2-5: Literature Review: The student will meet with each faculty reader once a week to discuss the assigned papers. The faculty reader is free to focus the discussion on part of the assigned reading that they consider especially relevant to the thesis work.

Faculty Reader Feedback on the Proposal. During the reading period, the student will write a draft, one-page Specific Aims page and send it to each faculty reader in Week 4. Each faculty reader must provide written comments on the Aims page and discuss these during the final meeting in week 5.

The Writing Period. The student will write an NIH F31 NRSA-style grant proposal on their thesis project. To review F31 examples in a specific research area, start at the NIH Reporter database, which will give you a list of all current and recently funded F31s at Yale: https://reporter.nih.gov/. From there you can contact Lisa Stadolnik (<u>lisa.stadolnik@yale.edu</u>), our Pre-Award Associate Administrator, who can provide you with a copy contingent on permission from the F31 PI. In addition, the DGSs will hold an orientation session with the second-year students during the summer, prior to the QE period, to describe the NRSA format in detail, strategies for writing an effective proposal, and address any questions the students may have about preparing the proposal or the QE process overall.

Only the 1-page Specific Aims page, the 6-page Research Strategy (including all figures and figure legends), and the References pages (no page limit) are required. Students must conform to the NIH-mandated page limits as learning how to write a succinct research proposal is one of the primary goals of the Exam. The DGSs will review the format of the proposal during the orientation session.

During the writing period, the student may not seek advice on the design or writing of the proposal from the advisor, Qualifying Committee members, or anyone else. However, if the students have questions about the format of the proposal, they can reach out to the advisor or the DGSs.

The student must send the proposal to the Committee a week before the oral presentation to allow the Committee members sufficient time to understand and evaluate the work.

The Oral Exam. At the oral exam, the student will defend the proposal. The student will also be expected to demonstrate knowledge of the literature discussed during the reading period.

Format. The oral exam will take up to 2 hours. The student will prepare a brief presentation (approximately 30 minutes) that describes the background, aims and experimental strategy of the proposed research. The Committee members are free to respectfully ask questions at any point during the presentation, focused on the content of the oral and written work and the reading period literature.

At the beginning of the exam, the Committee will briefly excuse the student to discuss their initial assessments of the written exam and the student's performance during the reading period. The student will then be invited to return to the room and begin their presentation. At the end of the exam, the student will again be excused and the Committee will discuss the student's overall performance in the oral and written exams, the extent to which they demonstrated knowledge of the reading period literature, and any constructive feedback they wish to provide to the student. The Committee will summarize their evaluation using the Qualifying Exam Report and decide on the outcome of the exam. An example of the Report is attached. The student will then be invited back into the room and the Committee will discuss the outcome and provide they student with their feedback irrespective of the outcome. After the exam, the Chair will file the Commitee Report at Qualtrics, which the registrar will distribute to student, committee, and DGS.

Outcomes. The Committee will decide on one of four outcomes based on their overall evaluation:

- 1. Pass. The student passes the exam and no further work is required.
- 2. Conditional Pass. The student passes but must address concerns raised by the committee. The committee must describe the specific concerns and provide a concrete roadmap on how to address them. The student may be asked to revise their proposal for the committee to re-review, read additional literature and provide a report to the committee, or take an additional course to build additional skills the committee thinks the student will need to be successful in their thesis research. The student will not be required to re-take the oral exam. In the event of a Conditional Pass, the DGS will discuss the outcome with the student, Committee, and advisor. The DGS will then review and approve the Committee's request for additional work or ask the Committee for changes.
- 3. Decision Deferred. The Committee identifies major deficiencies in the student's performance. In addition to work the Committee may require as described for a "Conditional Pass," this decision will require the student to retake the exam within 6 months. The Committee will discuss the outcome with the student's advisor. The advisor will provide a written evaluation of the student's performance in the 6-month interval and describe the efforts the advisor has taken to provide the student with additional training and mentoring. As for a Conditional Pass, the DGSs will also discuss the outcome with all parties and review the plans for the re-exam and the advisor's evaluation.
- 4. *Fail.* After the student has retaken the exam as described above, if the Committee determines that there are still major deficiencies in the student's work that cannot be corrected in a reasonable time frame, the Committee will assign a "Fail." In this event, the DGSs will review the outcome of the re-exam with the student, the Committee, and the advisor to ensure the exam process was conducted fairly. If the

DGSs determine the decision stands, the student will be excused from the Graduate Program. We emphasize that this is a very rare outcome and we have designed the QE process to provide every opportunity for the student to succeed.

Responsibilities. The Qualifying Exam depends on contributions from the advisor, the student, the Committee members, and the Directors of Graduate Studies. Persons serving in each role have specific obligations, which are described above and further elaborated on here.

The advisor. The advisor's responsibilities begin as soon as they accept the student into their laboratory. The advisor is expected to work with the student to develop a thesis project that the student can claim ownership of and will be prepared to defend. The advisor is also expected to provide the student with a broad understanding of relevant literature **before** the reading period begins, so the student can effectively collaborate with the faculty readers to set up their own reading plan. The advisor will also provide the student with guidance on how to write an effective research proposal and present their work to a scientifically literate audience. Finally, the advisor will respect the time and effort demands on the student during the qualifying period. The advisor also agrees to work with the DGSs at any point when necessary, as described above.

The Committee members. The Committee members assume the following responsibilities when they agree to serve: 1) They commit to developing a reading plan with the student and meeting with the student each week as specified here; 2) They commit to working with the student to understand the relevant literature; 3) They commit to providing the student with constructive feedback on the thesis work during the reading period, including written feedback as described above; 4) They commit to engaging in a fair and constructive dialogue with the student during the oral exam, and ensuring that their questions are relevant to the material covered during the reading period and the content of the written exam; 5) They commit to providing an impartial, unbiased assessment of the student's work during the qualifying process and when evaluating the exam grade.

The Committee Chair. The Chair is responsible for managing the oral examination. They are required to ensure the discussion is fair and for closing off unhelpful, protracted, or hostile queries from other Committee members. They are also responsible for directing the pre-exam and post-exam evaluation discussions. If they have any concerns about the process or outcome of the exam, they must report this to the DGS.

The student. The student is responsible for 1) Organizing the QE in consultation with the advisor. This starts with developing the main goals of the thesis project, followed by identifying and recruiting Committee members, and scheduling meetings and the oral examination; 2) Coming to each meeting with each faculty reader prepared to discuss the literature; 3) Working full time on the QE. This includes critical reading of the assigned papers, engaging activate discussions with each faculty reader and formulating and adjusting the research plan based on the progression of the reading period. The student is also expected to communicate any challenges with the advisor, the Committee members, or the DGSs

The DGSs. The DGSs are responsible for oversight of the qualifying process for each student. They are responsible for providing the students with the necessary background for the Qualifying Exam process. They must also respond to requests and concerns from the student about the exam, such as non-responsive faculty readers or questions about the format of the written or oral components. The DGSs are also required to oversee *post hoc* review of any exam outcome other than a Pass as described above.

Approximate Timeline

- 1. June/July: Meet with advisor to discuss exam. Orientation session by DGSs will be held in mid-July.
- 2. July-September: Select reading topics, set-up exam committee, schedule weekly reading period appointments, reserve room for qualifying exam, email all this info to the Genetics Registrar, committee, thesis advisor, and DGSs.

- 3. August-Early October: Begin reading period (Week 1)
- 4. Week 1-5: Meet weekly with faculty for reading (at least 1 hr. expected)
- 5. Weeks 6-7: Write proposals
- 6. End of week 7: Turn-in written proposals to committee, advisor, and Genetics Registrar
- 7. Week 8: Prepare oral exam presentations
- 8. End of Week 8-beginning of Week 9: Present oral examination, no later than December 15th

The DGSs will work with students who join a lab after a fourth rotation to establish a schedule that will allow each student sufficient time to complete the QE process by the end of the fall semester.

Useful Resources

Examples of F31 applications and summary statements (scroll down to "F31 sample applications and summary statements"):

https://www.niaid.nih.gov/grants-contracts/sample-applications Advice on how to write an effective Specific Aims page:

https://www.biosciencewriters.com/NIH-Grant-Applications-The-Anatomy-of-a-Specific-Aims-Page.aspx

Qualtrics Link for Qualifying Exam Evaluation Form

3.5 Thesis Research

The centerpiece of graduate education is the thesis research and the preparation of the written dissertation. This research is expected to be organized in conjunction with the Dissertation advisor and Thesis Committee (see following section).

The exact nature of the research will differ from student to student and may change over time. Any concerns that may arise as a student conducts their research should be brought up to the student's advisor, Thesis Committee, or DGS.

3.6 Thesis Committee Meetings

Once a student has begun their thesis research, their primary interaction with the faculty of the department is through their thesis committee. This committee has several functions:

- 1. Periodically review and evaluate the student's progress
- 2. Provide advice and guidance about the direction of the student's research
- 3. Approve the student to begin writing their dissertation
- 4. Provide advice over future career goals
- 5. Mediate differences between a student and advisor

The committee should be regarded as an ally and a resource. Students are encouraged to contact members of the committee as needed, even in informal settings. On occasion, the thesis committee can help resolve differences between a student and an advisor.

Assembling the Thesis Committee: The thesis committee normally comprises 3-4 faculty members, including the student's advisor, and is assembled by the student in consultation with the thesis advisor. At least two members (including the advisor) must have primary or secondary appointments in the Department of Genetics. If a committee member outside of Yale is included, the committee should consist of: advisor, 2 Yale faculty, and the outside committee member for (4) members total. Names of committee members should be submitted to the DGS for approval, with the Genetics registrar copied, within the first month of the Spring Semester of the student's second year. Note, the composition of the committee may be modified with the approval of the DGS.

First Committee Meeting: - Qualtrics Link to First Thesis Committee Meeting Evaluation Form

The thesis committee must meet for the first time no later than October 15th of the fall term of the student's third year. The committee meeting is expected to take two hours. It is the student's responsibility to organize a time, date, and location for the committee meeting, and notify the Genetics registrar so that they may send the appropriate link to the Chair. Due to the difficulty of arranging schedules of multiple faculty members, the student is advised to begin scheduling 8 weeks in advance of the desired meeting date.

One week prior to the first meeting of the thesis committee, the student must distribute to their committee:

- 1. A thesis research proposal in F31 format (Specific Aims and Research Plan). The content of the proposal may be similar to the Qualifying Exam proposal, but the student must include any changes to the plan and any new data/results that they have obtained.
- 2. The Individual Career Development Plan (available on the Genetics website and from the Department Registrar), used as a guideline to discuss their career goals with the thesis committee during this meeting.

First and Subsequent Committee Meetings:

For each thesis committee meeting, the student will prepare a 45-minute presentation summarizing (1) the student's proposed/ongoing thesis research, (2) the progress the student has made so far, and (3) plans for future experiments. It is expected that the student will show raw data (including negative results) demonstrating the efforts the student has made in the lab. The Committee Meeting is an opportunity for the Committee to critically examine the current state the project, so the student must provide material to guide this discussion. If the research has run into difficulty, this is an opportunity for the student, their advisor, and the committee to contemplate a potential change in direction.

The outline of the meeting is as follows:

- 1. The committee privately discusses the student's progress with the advisor. The student waits outside the meeting room for this discussion.
- 2. The student presents a 45-minute presentation of their research during which it is expected the committee will interrupt the student to ask questions.
- 3. When the student is nearing readiness to write their thesis and graduate, the student must discuss this with the committee. In order to begin preparing the dissertation, the student must receive official approval on the evaluation form.
- 4. The student is excused from the room while the committee fills out the Evaluation Form (a copy of which will be distributed by the Registrar once it has been filed at Qualtrics). During this time, the committee decides if the next meeting should take place in 3, 6, 9, or 12 months. Note that for fourth year students and beyond, meetings must be held at least every 6 months. For students in their second and 3rd years, meeting at least twice yearly is recommended but is left to the committee's discretion.
- 5. For the first committee meeting only: The committee determines whether the student should be admitted to candidacy. As stated in Section 3.8 below, students must hold a satisfactory thesis committee meeting before being admitted to candidacy. It is the responsibility of the committee to evaluate whether the student's proposal, presentation and overall performance are sufficient based on the criteria described in the questions on the First Committee Meeting form. If the student is not admitted to candidacy, the committee must explain the basis for this decision, and a subsequent committee meeting must be held within 3 months to allow the student to address the committee's concerns.
- 6. The student returns to the room to discuss the evaluation form with the committee members and advisor.

7. The committee privately discusses with the student any concerns the student might have about their research or their relationship with the advisor or other lab members. The advisor is excused from the meeting at this point. The student and committee also discuss the Individual Career Development Plan.

Following the conclusion of the committee meeting, the student must meet with their assigned DGS to discuss the Evaluation Form, the outcome of the meeting, and any concerns they may have about their training.

In addition to formal committee meetings, the student should keep in close contact with the individual members of the committee so as to make the best use of their expertise and have informal discussion throughout the year. Generally, the committee members are happy to accommodate these informal meetings as they provide a venue for mentorship and guidance in a less stressful environment than the committee meetings.

Subsequent committee meetings differ from the first in the following ways:

Qualtrics Link to Subsequent Thesis Committee Meetings Evaluation Form

- Prior to subsequent committee meetings, the student should prepare a 1-2 page outline of progress made and of proposed research, in addition to an updated copy of the student's Individual Development Plan. This progress report should be sent out 2-3 days in advance of committee meetings.
- 2. Beginning in the student's fourth year, the committee must meet every 6 months.
- 3. When the student is nearing readiness to graduate, the student must discuss this with the committee. In order to begin preparing the dissertation, the student must receive official approval on the evaluation form.

3.7 Dissertation Prospectus/Research Proposal

By January 15 of the third year at Yale, each student must prepare a written summary of the proposed nature and scope of the thesis research, together with a provisional title for the dissertation. This document should be written in clear, plain English with minimal jargon, abbreviations, or colloquialisms. Because the prospectus is required fairly early in a graduate career and because of the uncertainties of research, the content of a thesis may change over time, and a student should not feel bound by what is submitted. The dissertation prospectus for Genetics students is usually an updated and somewhat abbreviated form of the thesis research proposal prepared for the student's first thesis committee meeting and should be prepared in F31 format. Your advisor must review your prospectus and indicate their approval in writing - an email is sufficient. Send the prospectus and your advisor's approval to your DGS for review, who may require additional changes. Once the DGS has approved the prospectus, please send your prospectus and approval emails to the Genetics Registrar for your file and so it may be noted on your transcript. Students will not be admitted to candidacy nor will they be allowed to register for their fourth year of study without an approved Prospectus.

3.8 Admission to Candidacy

In order to be admitted to candidacy, the student must fulfill 1) all Course requirements, 2) the Honors requirement, 3) the Qualifying Examination, 4) the Dissertation Prospectus, and 5) hold a satisfactory Thesis Committee Meeting. Upon completion of these requirements, Admission to Candidacy is approved during a subsequent Faculty Meeting - usually in late spring of the 3rd year of study.

A student who has not been admitted to candidacy will not be permitted to register for the fourth year. Exceptions must be approved in advance by the DGS, the department faculty, and the Graduate School Associate Dean.

3.9 Master's Degrees

M.Phil. The Master of Philosophy degree is awarded to Ph.D students who have been admitted to Candidacy. See the Yale University Graduate School Programs and Policies booklet.

M.S. Students are not admitted for this degree but may be awarded this degree if they leave Yale without completing certain requirements for the PhD degree. Students who are considering leaving the PhD program should consult with their DGS. Additional information can be found in the Yale University Graduate School Programs and Policies booklet.

3.10 Evaluation of Progress

Students may view their academic record (unofficial transcript) <u>online</u>. All students are encouraged to have frequent conversations with the DGS, course instructors, and thesis advisor, as well as members of the thesis committee. In addition, students will receive a copy of the summary statement of each thesis committee meeting. In later years, the advisor and thesis committee will report to the faculty on the student's thesis research progress. If at any point the faculty finds deficiencies in a student's performance, a detailed letter will be sent to the student by the DGS describing those deficiencies and making suggestions to remedy them.

Finally, at the end of the academic year (approx. May 15th) the Graduate School requires a Dissertation Progress Report from students in their 3rd, 4th, 5th, and 6th year, to be filed at <u>DPRS</u>. The DPR needs to be approved by the faculty advisor and by the DGS. You may attach your most recent thesis committee outline of progress made and of proposed research.

3.11 Teaching

Genetics Ph.D. students are required to participate in two semesters (or its equivalent) of teaching. Students are not expected nor encouraged to teach during their first year or during their qualifying exam. Teaching must be in a science related course. **Teaching assignments in fulfillment of the requirement must be approved in advance by the DGS.**

Students teaching for the first time are required to participate in a session called Teaching at Yale Day. This event is designed to help new teachers develop the skills and confidence to make an effective start to the semester. Students must attend mandatory training.

Genetics students wanting to serve as teaching fellows after completion of their teaching requirement must obtain the approval of their thesis advisor and the DGS beforehand. The Genetics Graduate Program is a fulltime commitment and any part-time jobs for pay, including tutoring to Yale College students, requires the approval of the thesis advisor and the DGS.

3.12 Graduate School Policies

Any questions regarding these policies should be addressed to your assistant or associate dean:

Michelle Nearon

Senior Associate Dean & Director of Office for Graduate Student Development and Diversity, GSAS <u>michelle.nearon@yale.edu</u> 203-436-1301

Allegra di Bonaventura

Associate Dean for Graduate Academic Support, GSAS

allegra.dibonaventura@yale.edu 203-432-2735

Matthew Tanico Assistant Dean for Graduate Academic Support and Outreach, GSAS matthew.tanico@yale.edu 203-436-2628

Link to Yale GSAS Academic Requirements and Policies

4. The M.D. Ph.D. Program

4.1 Overview

Occasionally, one research rotation is completed prior to beginning medical school training as part of the START@Yale program. Typically, students who do not participate in START will complete two rotations during the summer between year one and two of medical school. A minimum of two rotations is required. Students having selected a thesis adviser and deciding to enter the Department of Genetics Graduate Program are asked to meet with the DGS of Genetics to complete the affiliation form, discuss required coursework, and review the process for the departmental qualifying exam prior to beginning their 12 weeks of protected Step 1 study time. MD/PhD students typically begin thesis research and participating in departmental activities after completion of the Step 1 examination. Coursework and teaching requirements for the PhD portion of MD/PhD training are modified from the typical course of study to account for coursework found in the medical school curriculum. M.D./Ph.D. students are required to serve for one term as teaching assistants. Besides the modifications in these requirements, MD/PhD students in the Department of Genetics are subject to the same requirements as other graduate students in the department.

4.2 Laboratory Rotations

One or more rotations should be completed to identify a thesis advisor.

4.3 Coursework

Four graduate level courses taken for a grade as well as enrollment in the genetics graduate student seminar (GENE675/676) are required. The selection of courses should be discussed with the DGS and tailored to fit the field of research relevant for the student's research pursuits. Graduate courses taken during medical school (e.g. CBIO501, CBIO600, MBB800) may count towards this requirement. To serve as a refresher course in responsible conduct of research BBS 503 should be taken during the 4th year of study. By the end of the 4th year of study a grade of honors must be achieved in a minimum of 2 courses. Students are encouraged to take elective courses beyond those required to fill in gaps in knowledge and methodology relevant for their thesis work.

4.4 Teaching

One semester of teaching is required by the end of the 4th year of enrollment in the MD/PhD program. Students must attend mandatory training.

4.5 Qualifying Exam

MD/PhD students should complete the qualifying examination in the semester following the completion of their coursework, but no later than May 31st of their first year in the PhD program. The structure of the qualifying exam is identical to that which is described in Section 3.3.

4.6 Prospectus

MD/PhD students should submit their prospectus no later than April 30th of their second year in the PhD program. The structure of the dissertation prospectus is identical to that which is described in Section 3.7.

4.7 Candidacy

MD/PhD students will be admitted to candidacy once they fulfill 1) all Course requirements, 2) the Honors requirement, 3) the Qualifying Examination, 4) the Dissertation Prospectus, and 5) hold a satisfactory Thesis Committee Meeting.

4.8 Thesis Committee Meetings

The first thesis committee meeting must take place by January 15th of the second year in the PhD program, and the structure and requirements are the same for Genetics PhD students (Section 3.6). Frequency of thesis committee meetings are up to the discretion of the committee but must occur at least once per year in the first two years after completion of the qualifying examination, and twice per year thereafter. Students are strongly encouraged to have additional meetings if they feel their project could benefit from the assistance of members of the thesis committee. The thesis committee must include at least one MD/PhD associate director as well as one faculty member in the department of Genetics that is not the student's primary research mentor.

4.9 Clinical Re-entry

Students are required to successfully submit their PhD thesis, hold their thesis seminar, and have submitted a first-author manuscript for peer review prior to reentering clinical clerkships. Students must consult with the Associate Director for Clinical Education at least 6 months prior to planned reentry to complete reentry requirements.

5. Requirements for Graduation

5.1 First Author Manuscript Requirement

Each student is expected to have at least one first-author manuscript reporting original thesis research accepted or submitted for publication in a peer-reviewed journal before submitting his or her thesis to Yale Graduate School for the Ph.D. degree. This requirement will be waived for an individual student only with the approval of the student's advisor, thesis committee, and the DGS.

5.2 Approval to Write Thesis

Final Committee Meeting Before starting to write the thesis, the thesis committee must meet and certify that the experimental results necessary for writing the dissertation have been completed. It is very helpful for the student to present an outline of their thesis to their committee members for this meeting. In order to obtain approval for a student to start writing their thesis, the evaluation form must be completed and none of the eight criteria are cause for concern.

It is the responsibility of the committee, not the advisor, to determine when a student is ready to write their thesis and graduate. Any difference in opinion arising between the committee members and the advisor regarding the student's readiness to graduate should be referred to the student's DGS.

The final thesis committee meeting form will be reviewed by your DGS. A meeting with your DGS is not required once you have been given permission to write, but you are more than welcome to make an appointment with them if you would like at any time.

5.3 PhD Dissertation

Writing the Dissertation Most students devote one to several months' full-time effort to writing their thesis. Be sure to allow ample time to receive and incorporate the comments of the thesis committee members. Each student should discuss the schedule of writing and review with the advisor and committee members early in the process. A completed <u>draft</u> of the thesis should be given to all committee members at least 3 weeks prior to the submission date for pre-submission review. This ensures that feedback is provided to you by your entire committee before you submit the thesis to the Graduate School.

GSAS guidelines for thesis formatting can be found here: https://registrar.yale.edu/students/dissertation-submission

Evaluation of the Dissertation The final, submitted dissertation will be formally evaluated by two "inside" readers (usually members of the thesis advisory committee, but not the thesis advisor, and are ladder or ladder-track faculty members at Yale) and one "outside" reader (who can be a Yale faculty member but who cannot be a member of the thesis committee, or a collaborator on the thesis project, or on a closely related project of the advisor). You can also choose an outside reader that is from an institution other than Yale. All readers must hold the Ph.D. degree as well as a faculty position or be considered otherwise qualified to evaluate the dissertation. Readers should be chosen by the advisor in consultation with the student.

Complete the Outside Reader Request form along with 3-5 PubMed citations for each reader and send to the DGSs for approval **six weeks prior to your thesis submission deadline**. Once the DGSs approve, send it to the Genetics Registrar. The Registrar will contact the outside reader if the reader is from a university other than Yale. If your selection for outside reader is a Yale Faculty member, you may contact them directly.

After the Registrar notifies you that your outside reader has accepted, please enter and submit all of your readers' names at <u>DPRS</u> for final approval by the DGSs. Only after your readers have been approved will DRPS allow you to upload your thesis.

GSAS Dissertation policy can be found here: https://catalog.yale.edu/gsas/policies-regulations/degree-requirements/

Submitting the Thesis. Graduate School degrees are conferred in December and May. The deadlines for petition and submission of dissertations to the Graduate School to meet these specific dates are posted on the Yale Academic Calendar and should be double-checked, but typically are March 15th for May degree conferral, and October 1st for December conferral. Final thesis PDF should be uploaded to <u>DPRS</u>. Once the final thesis is uploaded, the Dissertation Office will email the readers with links to the thesis and evaluation form. They will be given one month to return their reader reports.

Students who have been admitted to candidacy and given permission to write may submit their thesis at any time during the calendar year. The deadlines above are the *latest* dates by which you must submit your thesis for your degree to be conferred in each semester. If, for example, you are unable to submit by the spring deadline but you are confident that you can complete and submit your thesis before fall semester begins, you are welcome to begin the submission process. You should discuss your plans with your committee, advisor and

DGS early on, and please contact the registrar as soon as you are thinking about your submission timeline to talk about the next steps and go over the processes. To make sure your submission runs smoothly, you should notify your committee, DGS and registrar no later than **three months** before your anticipated submission date.

IMPORTANT: Students who submit their dissertations before the end of the add/drop course enrollment period (see the academic calendar) are NOT eligible to register as students for the remainder of that term. Students who wish to remain registered until the end of a given semester must submit their dissertations AFTER add/drop closes in order to remain registered for that semester.

Thesis Seminar Each student is required to give a department seminar on their research. The student must consult their thesis committee to find a day/time that works for the entire committee. Once a date has been established, connect with the Registrar for assistance with room scheduling and publicity. The seminar must be presented before the DGS signs the departmental recommendation form for conferral of the Ph.D. degree (dates can be found on the Yale Academic Calendar) - these are typically April 15th for spring conferral, and November 7th for December conferral. Please double check with the academic calendar and/or Registrar.

Thesis Research Publications When material is published from dissertation research, the Graduate School requires that it include a statement saying that the paper is taken from (or based on): "a dissertation submitted to fulfill in part the requirements for the degree of Doctor of Philosophy, Yale University".

Where a student has been supported by a training grant, regulations require that the following statement be included in publications: "This investigation was supported by National Research Service Award (number of the training grant) from the NIH (awarding unit)".

The Genetics registrar can supply the relevant grant information. If a student has received other grants (for example, NSF), these should be acknowledged, as should any financial aid received from faculty research grants.

5.4 Starting Postdoctoral Positions

Students frequently start postdoctoral positions before the degree has been formally awarded. In such cases, most institutions require a letter from an appropriate University official, such as the Registrar, DGS, or Department Chair, which certifies that the student has satisfactorily completed all the requirements for the degree. Such a letter cannot be written until the Department has received the readers' evaluation of the thesis. Please also be sure that the Registrar is aware of your postdoctoral position so that the appropriate steps may be taken in the Genetics Business Office.

5.5 Information Required by Genetics Registrar

The Genetics Department is required by the NIH to track students for 15 years after graduation. Please send the Registrar the following information before you leave the university:

- 1. Updated CV
- 2. Future career goals or employment information
- 3. Thesis Abstract

6. Additional Important Information

6.1 Grievance Procedures

If a situation arises wherein you disagree with a decision made about you, or where you feel you have been treated wrongly by someone in the University, there are several courses of action. You may ask a faculty member, the DGSs (James Noonan, 203-737-1922 & Zhaoxia Sun, 203-785-3589), the Registrar (James Long, 203-785-5864), the Director of the BBS (Craig Roy, 203-737-2408), the Department Chair (Valerie Reinke, 203-785-5228), or Vice Chair (Jun Lu, 203-737-3426), for advice or assistance. Alternatively, if you do not wish to raise the issue within the Department, there are University agencies that can act for you.

Allegra di Bonaventura, Associate Dean for Graduate Academic Support (203-432-2735), and Matthew Tanico, Assistant Dean for Graduate Academic Support and Outreach 203-436-2628) are the initial contacts for students for cases in which a student has a complaint against a member of the Faculty of Arts and Sciences or a member of the administration. The Dean of the Graduate School, Lynn Cooley (203-432-2733), can also be a resource. The Provost of the University governs cases against a faculty member who is not a member of the Faculty of Arts and Sciences or against an employee who is not an administrator in the Graduate School or who is not subject to discipline by the student's Dean. The Office of Academic & Professional Development in the Yale School of Medicine can also assist with a professionalism or academic integrity concern about a faculty member of researcher. Also, there is a standing University-Wide committee to consider student complaints of sexual harassment, as well as The SHARE center located at 55 Lock St, which operates a 24/7 anonymous call line (203-432-2000). You may also wish to contact GSAS Title IX Coordinator Michelle Nearon (203-436-1301), Senior Associate Dean & Director of the Office for Graduate Student Development and Diversity.

6.2 Yale Health, Wellness & Support Resources

Eva Wilson, GSAS Embedded Mental Health Clinician <u>eva.wilson@yale.edu</u> 203-432-6110

Dr. Wilson was recently recruited to provide counseling services specifically for GSAS students. Students can book an appointment with Dr. Wilson here: https://outlook.office365.com/owa/calendar/DropInAppointments@yale.edu/bookings/

Yale Health Plan: 55 Lock Street, <u>http://yalehealth.yale.edu/</u>. Whether or not you have chosen to purchase the hospitalization piece of the Yale Health Plan, Basic Coverage is offered at no charge and includes preventive health and medical services in the departments of Mental Health & Counseling, Student Health, Gynecology, and Health Education. In addition, treatment for urgent medical problems can be obtained twenty-fourhours a day through Acute Care.

You may consult with Mental Health & Counseling about problems related to mood, coping, relationships, stress, anxiety, etc. You may go directly to Yale Health or call to make an appointment. After hours for urgent situations call Acute Care at 203-432-0123 to reach a mental health clinician.

Mental Health & Counseling Services (203) 432-0290 Acute Care (203) 432-0123 Student Health Department (203) 432-0312 Substance Abuse Counselor (203) 432-0290

Link to all group therapy offerings available this semester: <u>https://yalehealth.yale.edu/group-therapy-offerings-semester</u>

Student Mental Health & Wellness: <u>https://medicine.yale.edu/md-program/student-affairs/student-well-being/well-being-resources/mental-health-wellness</u>. The program offers short-term counseling, wellness sessions, and events. Counseling sessions are offered with an emphasis on easy access and flexible scheduling. Appointments are offered in-person, virtual, or by phone and are typically available same-day, with evening and weekend hours as well. Students are welcome to make appointments to learn more about the program. Students can be seen as needed or for repeated sessions (up to 4-6 sessions per academic year). The Student Mental Health & Wellness program works in conjunction with Mental Healthand Counseling at Yale Health and Magellan. An appointment may be made on the website or by email.

GSAS Dean's Emergency Fund: To help terminal master's and Ph.D. students with unexpected one-time expenses such as travel related to a death in the immediate family, temporary housing after a fire, or emergency dental surgery, the Dean's Office has set aside special funds. Contact Associate Dean <u>Allegra di</u> <u>Bonaventura</u>.

<u>Yale School of Medicine (YSM) Student Emergency Aid Fund</u> is designed to provide short-term financial assistance to students enrolled in the MD, MD/PhD, PA, and PA online programs who are struggling with unanticipated or emergency financial situations.

Loans: Students should consult <u>Graduate Financial Aid</u>. This office can provide short-term loans during temporary financial crises (for example, if a stipend check is delayed). This office also has up-to-date information on federally sponsored student loan plans.

Peer Advocates: These trusted student listeners are available to you at any time to hear about your concerns regarding experiences you have hadduring medical school that make you feel uncomfortable. They can be contacted anonymously. Their names and phone numbers are listed on a plastic card which you have been given to carry. If you have misplaced your card, please contact Student Affairs. <u>https://medicine.yale.edu/md-program/student-affairs/student-well-being/well-being-resources/peer-advocate-program/</u>

Discrimination and Harassment Resource Coordinators (DHRC): Discrimination and Harassment Resource Coordinators have been identified by Yale College and the dean of each school as having the responsibility to receive student concerns and offer advice and guidance in relation to equalopportunity, diversity and inclusion, and discrimination and harassment. Coordinators may also assist students in facilitating informal resolution. Yale School of Medicine coordinators are Deans John Francis, Darin Latimore, and Marietta Vasquez.

Office of Institutional Equity and Accessibility (OIEA): The Office of Institutional Equity and Accessibility (OIEA) is responsible for ensuring Yale's commitment to equitable and inclusive working and learning environments. This includes administering Yale's <u>Policy Against</u> <u>Discrimination and Harassment</u>. Individuals may report discrimination, harassment, or retaliation using the <u>OIEA Reporting Form</u> and are also welcome to contact OIEA by <u>email</u>, phone: (203) 432-0849, or by visiting OIEA at W.L. Harkness Hall, 3rd Floor, Room 303, 100 Wall Street, NewHaven CT 06511.

SHARE (Sexual Harassment and Assault Response & Education): <u>SHARE</u> is available to all members of the Yale community who are dealing with sexual misconduct of any kind, including sexual assault, sexual harassment, stalking, intimate partner violence, andmore. SHARE provides crisis support and referrals for all members of the Yale community. For students (undergraduate, graduate, and professional), we also offer on-going counseling focused on processing issues related to sexual misconduct as well as on-going advocacy services, such as accompaniment to meetings with other campus or community resources, medical and legal appointments, and evidence collection. For students who choose to take legal or disciplinary action, SHARE staff can facilitate a connection to those processes and provide support throughout. We are located on the Lower Level of Yale Health and open for appointments Monday through Friday from 9am to 5pm. Support is also available any time, day or night, via our 24/7 on-call service at 203 432-2000. All interactions with SHARE

are confidential and can be anonymous if you wish. We will offer information and support with the goal of helping you make your own informed, empowered decisions.

GSAS and Yale School of Medicine Title IX Coordinators

Michelle Nearon, Senior Associate Dean & Director of Office for Graduate Student Development and Diversity, GSAS <u>michelle.nearon@yale.edu</u> 203-436-1301

Ksenia Sidorenko, Assistant Dean of Diversity, GSAS

ksenia.sidorenko@yale.edu 203-436-4171

Matthew Tanico, Assistant Dean for Graduate Academic Support and Outreach, GSAS <u>matthew.tanico@yale.edu</u> 203-436-2628

Suzanne Young, Assistant Dean for Graduate Student Professional Development, GSAS suzanne.young@yale.edu 203-432-8895

Cindy Crusto, Professor of Psychiatry, YSM cindy.crusto@yale.edu (203) 675-1337

Rosemarie Fisher, Professor Emeritus of Medicine, YSM rosemarie.fisher@yale.edu (203) 688-1449

Megan King, Associate Profess of Cell Biology and of MCDB, YSM megan.king@yale.edu 203-737-4628

Darin Latimore, Deputy Dean and Chief Diversity Officer, YSM darin.latimore@yale.edu (203) 415-5682

The Title IX Coordinators are responsible for protecting students from sex and gender discrimination. Discrimination on the basis of sex or gender includes sexual harassment, sexual assault, and other forms of misconduct. The University is committed to providing an environment free from discrimination on the basis of sex. Title IX Coordinators can resolve complaints and assist with informal remedies. The TitleIX Coordinators do not conduct formal hearings but may investigate complaints and work with the complainant and the respondent to achieve resolution of the complaint.

Diversity, Inclusion, Community Engagement and Equity (DICE) strives to create an inclusive community for YSM's diverse student body by supporting and celebrating our differences. DICE works directly with and supports student groups such as: the Office for Women in Medicine and Science at Yale (WIM), Asian Pacific American Medical Students Association (<u>APAMSA</u>), Yale BBS Diversity & Inclusion Collective, (<u>YBDIC</u>), Committee for Diversity, Inclusion, and Social Justice (<u>CDISJ</u>), Latino Medical Student Association (<u>LMSA</u>), OutPatient (<u>LGBTQ student group</u>), South Asian Medically-oriented Student Association (SNMA), Muslims in Medicine (<u>YMIM</u>), Yale First Generation Low Income (<u>FGLI</u>),

Yale Native American Health Professionals (YNAHP) and Yale Society for the Advancement of Chicanos and Native Americans (<u>Yale SACNAS</u>).

Additionally, DICE welcomes partnering with any and all students on programs related to outreach and pathway program initiatives as well as enrichment of cultural competency of YSM student body as a whole. Office contacts are: Linda Jackson, MS (Director, 203-785-7545), Marietta Vazquez, MD (Associate Dean for Medical Student Diversity and Professor of Pediatrics, 203-891-0509), Aja Diggs, BS (Sr. Administrative Assistant, 203-785-7545), and Darin Latimore, MD, (Deputy Dean for Diversity and Inclusion & Chief Diversity Officer, 203-785-6896).

<u>The McDougal Graduate Student Center</u> is where you can find support resources, attend events, build community, and connect with your fellow graduate students. Located on the upper floor of Founders Hall, at 135 Prospect St., near Ingalls Rink and Science Hill, the McDougal Graduate Student Center is accessible on the blue, red, and orange lines of the Yale Shuttle. If you are a student in the Graduate School of Arts and Sciences (GSAS), you can enter the building and the McDougal Center with your Yale ID card. Your ID card will work at the Prospect St. and Sachem St. entrances, and via the courtyard behind the building. An elevator is available near the Prospect St. parking lot entrance, through the double doors.

Chaplain's Office: <u>http://chaplain.yale.edu</u>. The Chaplain's Office provides connections to a variety of religious and spiritual communities on campusand in New Haven, lively interfaith programming, as well as confidential conversations about any topic (religious or not) and resources for students who are grieving. Please contact Associate University Chaplain Jenny Peek at jennifer.peek@yale.edu for assistance.

<u>Student Accessibility Services (SAS)</u> responds to students with disabilities' requests for accommodations. SAS engages individually and privately upon request from students in Yale's health science education programs, who will make the population of health care professionals reflective of the national population, including individuals with disabilities.

To begin the interactive process of requesting accommodations, students can complete the SAS <u>Registration</u> form. As part of the request process, students will be asked to provide a self-report regarding their condition(s) and requested accommodations, upload documentation from their providers regarding the impact of their condition(s) and meet with an SAS staff member to discuss potential accommodations to address barriers to the curriculum or clinical portion of their education. SAS has developed <u>Documentation Guidelines</u> to assist students with various disabilities and conditions with requesting documentation from their treatment providers. Students who do not have documentation of their condition, and/or who believe they have an undiagnosed condition, should contact SAS to discuss their circumstances further.

Your inquiry is private, and you are welcome to obtain general information about accessibility and accommodations without completing a registration form. If you have questions about a disability, medical condition, temporary injury, or what accommodations might be appropriate foryou, please contact Shami Tarlanov, SAS Associate Director at <u>shamshir.tarlanov@yale.edu</u> or <u>sas@yale.edu</u>.

Office of LGBTQ Resources: Founders Hall, 135 Prospect Street. We support and empower students, faculty, staff, and alumni of all sexual orientations, gender identities, and expressions. Our community center is open daily (except Saturdays) with drop-in space to connect with our staff, gather or hang out, or get involved with one of our LGBTQ groups. Check out the event calendar for a variety of programming ranging from movies, discussion, music, or other opportunities to connect. We also have weekly groups and periodic meetups, and our staff members are available for one-on-one support. Sign up for our weekly newsletter with events and announcements and explore campus resources at https://lgbtq.yale.edu/.

Office of International Students & Scholars (OISS): Helps international students with immigration regulations, visa issues and other matters. More information can be found on the OISS web site at http://oiss.yale.edu/.

You can email, call, set up an appointment, or visit OISS withyour questions. For contact information and appointments: <u>https://oiss.yale.edu/about/connect-with-oiss</u> or call (203) 432-2305

New Haven Bar Association Ask-A-Lawyer: Typically hosts regular sessions for members of the community with legal needs, including monthly sessions at Yale during the academic year. Please check the New Haven Bar Association website for updates. The Graduate Student Assembly of the Graduate School also maintains a list of lawyers who have agreed to offer a free consultation to students. Please email the <u>GSAS Administrative Dean</u> for access to the list. In addition, students with landlord issues can visit a dedicated website at <u>https://your.yale.edu/work-yale/campus-services/campus-living/resources/issues-your-landlord</u>. If you cannot get anywhere with your property owner from the resources listed, there is a case worker of sorts at the Off Campus Living Office who can helpmediate between you and the property owner. The form to request help is linked at the bottom of that page.

Office of Academic and Professional Development (<u>OAPD</u>**)** The Office of Academic and Professional Development (OAPD) in the School of Medicine promotes, develops and helps ensure faculty professional behavior and academic and research integrity. The office oversees processes and mechanisms for reporting, review and resolution, including a centralized portal for raising concerns about faculty. The OAPD serves as a resource for individuals who are experiencing unprofessional behavior and consults with faculty leaders who are taking other affirmative steps to address faculty professionalism concerns or promote professionalism in their departments, sections, programs, or labs. The office also develops and deliversleadership development and professionalism programs for faculty reflecting a value-driven approach imbued with the standards of professionalism that represent the culture and values of the school. <u>oapd.acadprof@yale.edu</u>.

Mothers' Room (333 Cedar St, Room 0007; Reserve online or call 203-432-6888)

The GSAS also maintains an extensive website of resources for students: <u>https://gsas.yale.edu/resources-students</u>

6.3 Parental Support and Relief

Registered Ph.D. students who wish to modify their academic responsibilities because of the birth or adoption of a child may request parental support and relief during or following the term in which the birth or adoption occurs. For the whole term in which the support and relief are granted, the student's academic clock stops, effectively adding an additional term to the total time to degree. During this period, students remain registered full-time, receive a standard financial aid stipend and Health Award, and receive modified departmental academic expectations that best suit the specific situation. The precise nature of the academic responsibilities undertaken or suspended during this period should be a determined between the adviser and the student, with the understanding that students are entitled to full relief from responsibilities for at least an eight-week period. Most students take an entire term of parental relief, but the relief may be split in two, with a student taking only eight weeks of relief during the term in which, or just after, a birth or adoption occurs and then receiving an additional eight weeks of stipend funded by the Graduate School postponed to a later term. Parental relief may not be combined with other funding. To arrange for parental relief, a student should contact the GSAS associate dean for graduate student advising and academic support prior to the term of the birth or adoption. This benefit is limited to two birth or adoption events. If both parents are Ph.D. students at Yale, both may receive this benefit per birth or adoption event.

The <u>PhD Student Family Support Policy</u> offers a flexible subsidy of \$4,600/year to GSAS Ph.D. students with children up to age 12. It can be used to purchase spousal Yale health coverage, for childcare or other family costs, and is not means-tested (no income ceiling or documentation).

6.4 Tuition and Stipend

Also see the Yale University Graduate School Programs and Policies and the BBS funding guidelines.

Tuition

With rare exception, tuition is charged for all Ph.D. students for the first four years (eight terms) of their program. In essentially all cases, tuition for graduate students in Genetics is funded by NIH NRSA institutional training grants, individual predoctoral awards from various agencies such as NSF, or by the Department, supplemented with Yale fellowships. These funding sources often cover the first three years of study. After students are no longer covered by external funding, tuition and stipend is paid by their thesis advisors' research grants.

After all four years of tuition have been paid, the student is expected to continue registering until the dissertation is submitted or the terminal date is passed. The fee for continuous registration (CRF) is paid by the student's thesis advisor.

Financial Aid

The Department of Genetics attempts to ensure that all students registered in its Ph.D. program are provided with adequate financial aid. Because financial aid is budgeted on a year-by-year basis, it is not possible to guarantee any particular level of financial aid in subsequent years. However, it is our expectation that graduate students in the Department of Genetics will be supported in the years to come at least at the level described below.

Taxes

Taxes are complicated and can be tricky for graduate students. It is best to contact tax professionals with any questions, particularly for international students. The GSAS has a dedicated <u>Tax Information page</u> that you should consult first, and international students are strongly encouraged to reach out to the <u>Yale International</u> <u>Tax Office</u> for assistance.

Sources of Support

As of 2019, tuition will be paid for all students by the aforementioned grants and funding resources. In addition, stipends (either the BBS stipend or Combined Award when applicable) will be paid over 12 months in bimonthly installments. All stipends are considered taxable income, and <u>students are expected to file a tax return with the IRS</u>. For the first three years of study, when U.S. citizens are not working as teaching assistants, taxes are usually not withheld by the university, and it is the student's responsibility to pay taxes to the state and federal governments as described by current tax laws. Most students file quarterly estimated tax reports. The University will withhold tax on all research, teaching and other assistantships; on casual wages paid; and on the fellowship stipends of foreign students. Withholding forms for Connecticut State and Federal taxes must be on file at the Payroll Office, 155 Whitney Avenue and updated annually, otherwise the maximum amount will be deducted from stipend checks. Students who are on assistantships in research (ARs) should file a Federal and State W4 form. For more information, see Yale's web page on graduate student taxes and/or speak with a tax professional. Foreign students should also refer to IRS publication 901 U.S. Tax Treaties.

USPHS National Research Service Awards (NRSA)

These awards (which are also called traineeships) support the vast majority of students in the Department for the first three years of study. NRSAs (training grants) are awarded to the Department by the National Institutes of Health (NIH) and pay one-half to two-thirds tuition plus a partial stipend of \$24,816. A supplement is added by the BBS or the Department of Genetics and the School of Medicine to bring the total tuition and stipend to

the current University levels. These positions are only available to US citizens and permanent residents. Taxes are not withheld for students on NRSAs, and such students are expected to file estimated tax reports with the IRS and state of Connecticut.

Travel to Scientific Meetings

Attendance at scientific meetings is an important part of graduate education. Limited travel funds are available to students in years 1-3 that are on training grants. Students should consult the registrar associated with their training grant regarding travel/supply allowances and requirements.

External Fellowships

There are several fellowships administered by federal sources for which students may be eligible (e.g., National Science Foundation, Department of Defense). Announcements of these fellowships are forwarded to eligible students and are on-line at the respective websites. Also, the Yale School of Medicine Dean's office maintains an extensive file of fellowships and publishes the online Graduate School Fellowship Guide. Students should be aware of the fellowships that are available and should make every effort to apply for those for which their training and background are appropriate.

Students who obtain external fellowships receive the award in conjunction with the University funding described in the student's offer of admission. According to Graduate School policy, one may combine funding from these two sources up to \$4,000 beyond the standard stipend for the program.

It is extremely important that you notify the Genetics Registrar and your PI's accounting support if you receive outside funding in any form!

Research Assistantships

Federal and non-Federal research grants and contracts awarded by outside agencies to support the research projects of faculty members may contain funds for research assistantships that can be held by graduate students. Appointments as research assistants are usually only made to students who have been admitted to candidacy for the Ph.D. This is the most common source of support for advanced students, and federal taxes are withheld.

How is the Stipend paid?

Stipends are paid on the 15th and the last day of each month. Students may have their stipends deposited directly to their banks by visiting <u>Workday</u> and signing up for direct deposit. Questions about paychecks and payroll should be directed to <u>Yale Employee Services</u>.