

Genetics & Genomics

GRADUATE PROGRAM





CONTACT

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CONTENTS



4 Welcome

6 Introduction

8 Program Overview

8 First Year

12 Subsequent Years

14 Funding

15 FGS, Awards, & Seminars

16 Admissions

UFGI

Mission Statement

The philosophy guiding the University of Florida Genetics Institute (UFGI) is that truly innovative ideas and novel insights arise at the interface of scientific disciplines. The Institute's mission is to apply the tools of genetics in a collaborative, multidisciplinary environment to address today's difficult scientific problems and challenges.

Excellence in genetics and genomics at the University of Florida is accomplished through the contributions of the greater UFGI community, comprised of more than 200 faculty members from eight different colleges. They apply genetic approaches to diverse scientific topics ranging from biofuels development and plant breeding to wound healing and gene therapy.

This mission is also advanced by the efforts of students in UFGI's Genetics and Genomics Graduate Degree Program, where students train today to be the genetics innovators of tomorrow. The mission is also advanced by the hundreds of dedicated staff and trainees who work in member laboratories and offices, and by the people of the State of Florida, who support the Institute's mission and inspire the Institute's efforts.

Genetics can help everyone to understand the amazing diversity of life, improve the quality and availability of foods, and provide novel cures for diseases. The UFGI investigators, students, and staff work every day to make a difference. The promise of genetics has never been brighter!



UFGI Director
Thomas P. Burris, PhD

 @UFGenetics

 @UFGenetics

 UF Genetics Institute

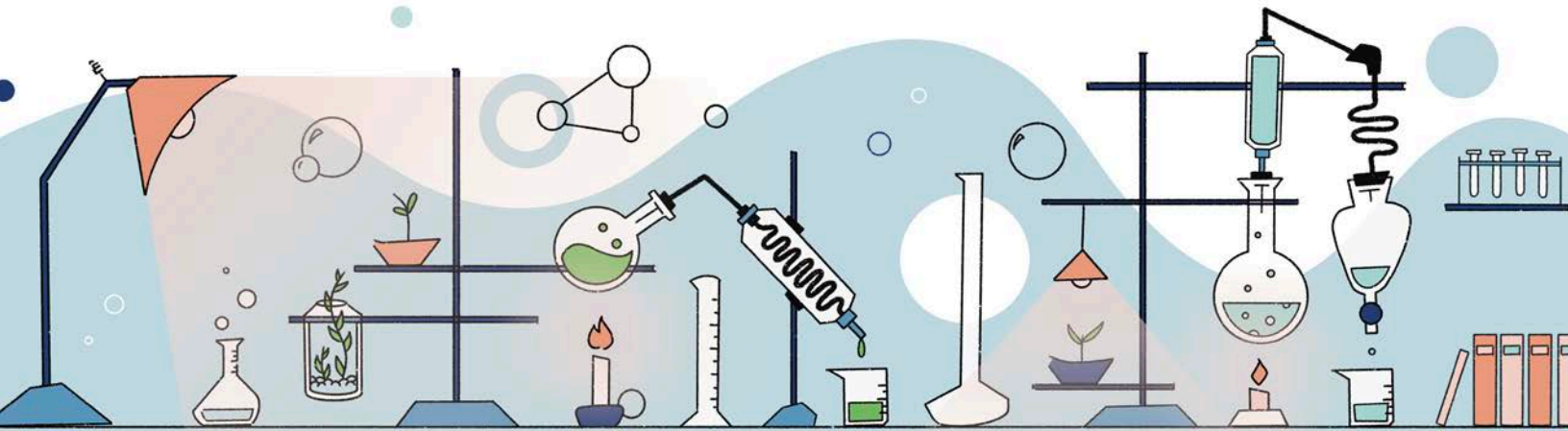
 @UFGeneticsInstitutePhD

 www.ufgi.ufl.edu/grad-program

Introduction

The University of Florida Genetics Institute is excited to introduce you to the Genetics & Genomics PhD program. Our program is designed to help graduates succeed in a variety of scientific fields: academia, industry, government, and entrepreneurship. The guiding principle of the program is to train researchers who can bridge the gap between

biologists and bioinformaticians, as well as communicate across fields of genetics and genomics. This is a concise guide intended to give an overview of the Genetics & Genomics Graduate Program's structure and policies.



Contact Information

Much of the information about the program is available on our website, www.ufgi.ufl.edu/grad-program. Please feel free to contact the people below with any questions you may have.



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UFGI at a Glance

200+ Faculty members

8 Colleges

64 Departments

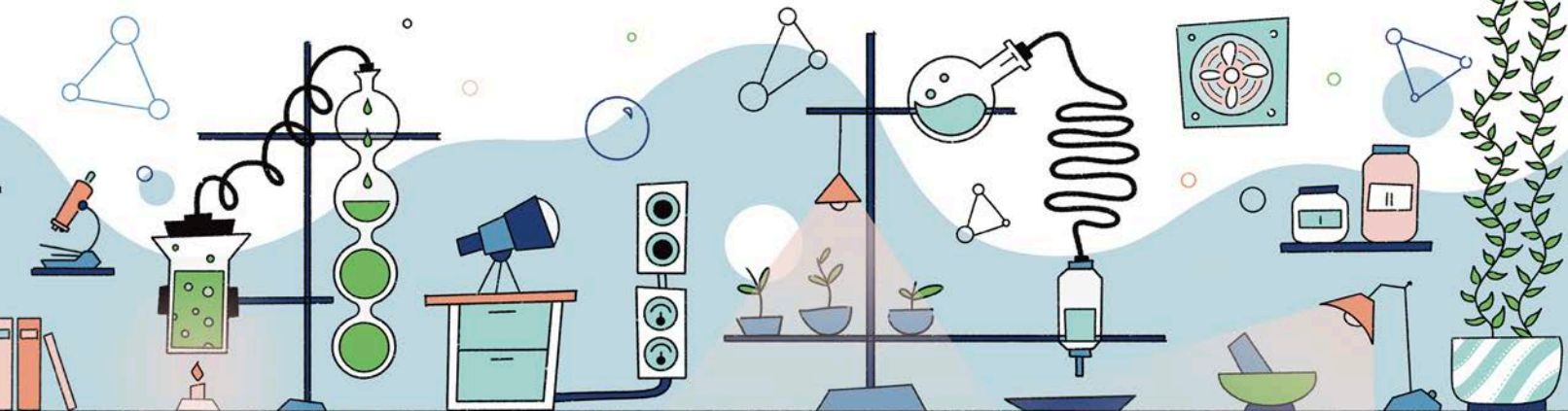
\$102 Million in Sponsored Research

881 Publications

3 Start ups

55 US Patents Filed

31 Doctoral Students



Outstanding Students & Alumni

Recent Student Funding Awards

Hannah Roberts	National Science Foundation Graduate Research Fellowship	2022
Leanne Dumeny	National Institutes of Health F31 Fellowship	2020
Chase Kelley	National Science Foundation Graduate Research Fellowship	2020
Enrico Barrozo	National Institutes of Health F31 Fellowship	2019
Elizabeth Delgado	McKnight Fellowship	2017
Brittney Otero	McKnight Fellowship	2015
Enrico Barrozo	McKnight Fellowship	2015
Dorianmarie Vargas-Franco	McKnight Fellowship	2013



Postdoctoral Fellow	37%
Industry	22%
Academia (Faculty)	19%
Academia (Research or Clinical)	19%
Government	3%

Program Overview

First Year

The first year of the Genetics & Genomics program builds the foundation in quantitative skills and basic sciences that is critical to success as a researcher. During the first year, students must take nine credit hours in the spring and fall semesters, three credit hours during summer A, and do at least three laboratory rotations.

Fall Semester

GMS 6221	Ethics in Genetics	1 credit
GMS 6290	G&G Seminar Course	1 credit
PHC 6052	Introduction to Biostatistical Methods	3 credits
PCB 5065	Advanced Genetics	4 credits

Spring Semester

GMS 6290	G&G Seminar Course	1 credit
GMS 6231	Genomics and Bioinformatics	3 credits
BCH 6415	Advanced Molecular and Cell Biology	3 credits
	Other Coursework or Research	2 credits

Summer A Semester

	Other Coursework or Research	3 credits
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Coursework for new students during their first Fall, Spring, and Summer semesters

Rotations

Rotations allow students to explore their research interests, gain experience in a lab, and determine whether they will be a good fit with the potential mentor. During their first year, students participate in at least three rotations. The rotation hosts must represent at least two different colleges. Each rotation lasts approximately eight weeks.

These rotations are primarily used to identify a suitable mentor for the student's doctoral studies. However, if students identify a mentor early on, the rotations serve to build scientific skills and identify potential committee members and collaborators.





Cancer & Genetics Research Complex, central location of the UF Genetics Institute

Choosing a Rotation Host

As students begin their first rotation in August of their first year, they are expected to arrange the rotations over the summer. The earlier students attempt to arrange rotation hosts, the more time students will have to arrange for alternate hosts, should one fall through.

Potential hosts must meet the following requirements:

- » **Graduate faculty status:** Rotation hosts must be classified as 'graduate faculty' in their home department or college.
- » **UFGI faculty member:** Rotation hosts must be a member of the University of Florida Genetics Institute: the member list is available on the UFGI website:

<http://ufgi.ufl.edu/ufgi-faculty/ufgi-members-listing/>

- » **Sufficient financial support:** Rotations hosts must be able to financially support you as of Summer B after your first year, should you be invited to join their lab.

UFGI Membership:

If a student is interested in doing a rotation in the lab of a researcher who is not a UFGI member, the student can work with the Graduate Coordinator to determine if the rotation is appropriate for the student's training.

Funding:

The program strongly recommends students discuss funding with their potential hosts. If a faculty member does not have funding to support you after your first year, they cannot be your rotation host. The only exception to this rule is if you are using rotations to develop additional research skills or identify potential committee members.



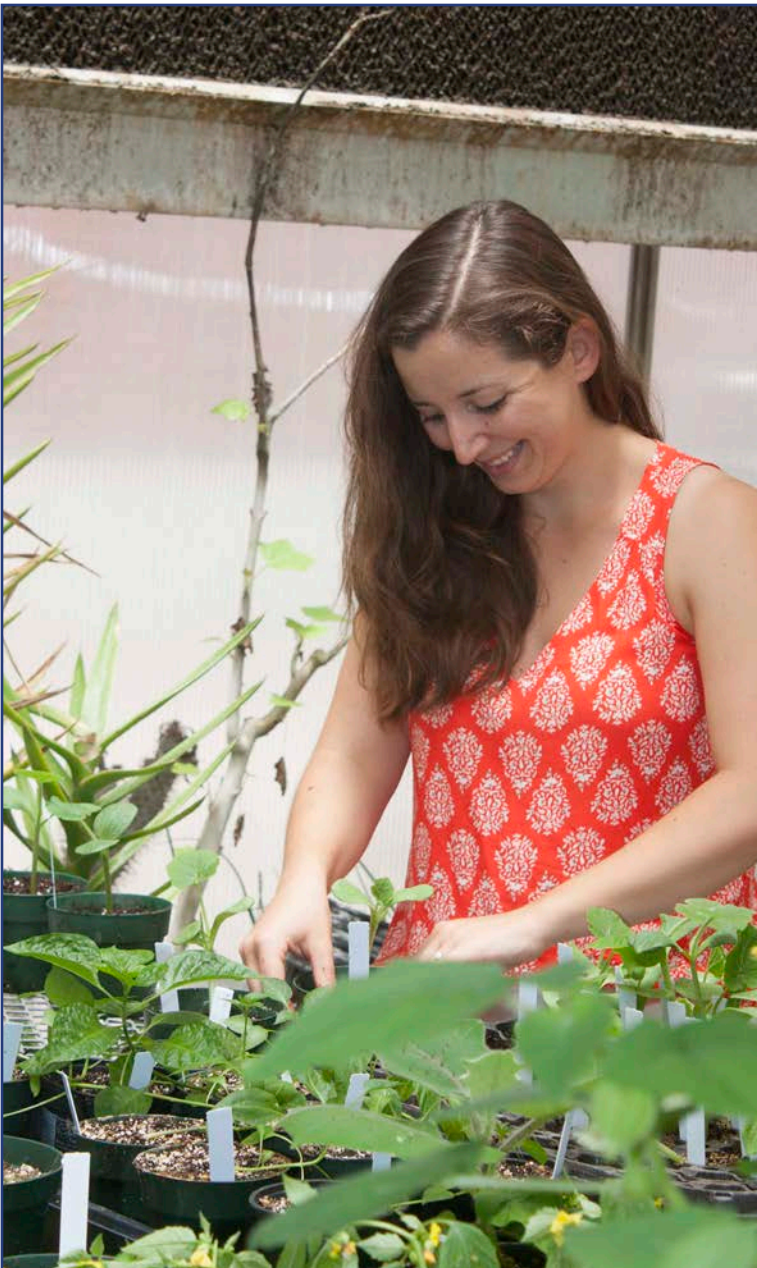
Mentor Selection

Students are expected to choose their mentors after the end of their third rotations, and before the end of the spring semester. The mentor must be a graduate faculty member in their home department and a graduate faculty member in the Genetics & Genomics Graduate Program. Mentors who do not have graduate faculty status in Genetics & Genomics can apply for this status.



Genetics & Genomics PhD student conducts tissue culture experiment

Some Genetics & Genomics students focus on plants, which includes working in one of UF's many greenhouses



Funding:

The G&G program supports PhD students through Summer A of their first year. After this, the student's mentor assumes the responsibility for supporting them. Students should find out how much graduate students are paid in the department they plan to join. Rarely, departments do not pay at the same level the G&G program does, and students may find they need to adjust their financial planning. While the G&G program asks mentors to support the student at their current stipend level, this is not guaranteed. Support can be in the form of teaching assistantships, research assistantships, or assistance in applying for research/training awards. It is crucial students discuss funding with their potential mentors.

Transferring to the Mentor:

The G&G program recommends students obtain funding commitments from their mentors by the middle of April of their first year. Students must inform their mentors they are expected to pay their G&G students for 3 credits during either Summer B or C.



First Year Exam

The First Year Exam is a comprehensive exam administered at the end of the first year of the Genetics & Genomics Graduate Program, typically in mid to late May. The exam has two parts: a closed book in-class exam and a take-home exam. Both parts of the exam involve multiple sections, and each section corresponds to one of the first year required classes. For example, there will be an Advanced Genetics section on the in-class exam and the take-home exam.

Students take the in-class exam first, and then are given the take-home exam. Students will have one to two weeks to complete the take-home exam. Exams are written and graded by the Academic Status Committee, which consists of the instructors of the first-year courses, as well as the Graduate Program Coordinator.

Students will receive one of three evaluations: pass, conditional pass, or fail. Most students pass the exam and continue in the program. Students who receive a conditional pass will be required to meet conditions outlined by the Academic Status Committee prior to returning to good standing in the program. These conditions are designed to address deficiencies in the student's foundational knowledge and can range from retaking sections of the exam to additional coursework. The committee evaluates students' performance in first year coursework, identification of a lab mentor, and the exam. If a student has not made satisfactory progress in these areas, they can be dismissed from the program.

Subsequent Years

Coursework

After the first year, students work with their mentors to decide on additional courses to take. All students must enroll in the Genetics & Genomics program seminar each fall and spring, with the exception of the semester in which they are graduating. Students on assistantships must take nine hours each spring and fall, as well as six hours in the summer.

Qualifying Exam

Students take their qualifying examination **during the fall semester of their third year**. The exam consists of a written grant proposal, a public presentation, a written exam, and a private oral defense of their proposal. The proposal is an NIH-style grant, covering 2-4 years of additional experiments and/or analyses. All components of the exam are administered by the student's dissertation committee.



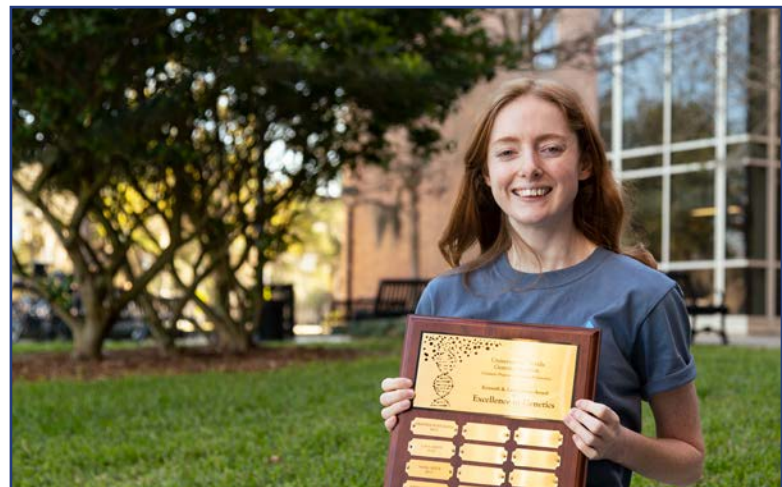
2022 graduate student appreciation event



G&G student in the lab



G&G student and Graduate Coordinator at graduate student appreciation

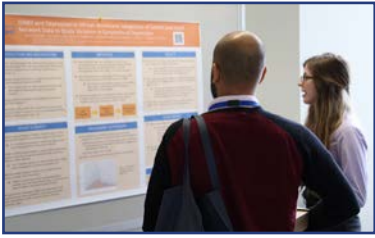


Berns Award for Excellence in Genetics winner, Shandra Trantham



G&G Student presenting at a mixer





G&G students attending lunch at the Florida Genetics Symposium

Committee Selection

Students will work with their mentors (who serve as the committee chairs) to select committee members. Committee members must be finalized **prior to December 15th of the student's second year**. The proposed committee members will be recommended by the students and their mentors, and reviewed by the Graduate Program Coordinator.

Supervisory committees must meet the following qualifications:

- » **Minimum of four members:** Each committee must include a chair and three other faculty members.
- » **Faculty status:** At least two of the members (including the chair) must be faculty in the Genetics & Genomics Program. At least one member must be drawn from a different educational discipline with no ties to the Genetics & Genomics program to serve as the external member. One regular member can be from the home or any other academic unit.

Committee Meetings: Students are required to meet with their committee at least once a year, but encouraged to meet every 6 months.



UFGI seminar series

Funding

Graduate Assistantships

First year PhD students are funded by the UFGI from their start date in August to the end of Summer A. This funding includes a stipend and tuition waiver. Students must be on their mentors' funding as of Summer B after their first year. This funding can include graduate assistantships (research or teaching) as well as fellowships. The UFGI does not support students after their first year.

Other Funding Opportunities

The G&G program recommends that students seek external funding. This extra source of support allows students to pursue additional research interests. It may also enable you to purchase supplies that your mentor does not readily possess.

Students should keep track of every fellowship or scholarship they receive, as these are important additions to their curriculum vitae. The graduate program coordinator will send announcements of funding opportunities. Students should also ask their mentors for suggestions. The UF Graduate School also has information about funding opportunities on their website: <http://graduateschool.ufl.edu/prospective-students/funding/>

The G&G program also offers a grant-writing workshop focused on the National Science Foundation Graduate Fellowship Research Program. This workshop aids students in developing draft proposals for the submission of this grant.





Florida Genetics Symposium

For more than a decade, the University of Florida Genetics Institute has hosted the annual Florida Genetics Symposium. This event attracts genetics and genomics researchers, students, and industry scientists from across the world. Speakers present and discuss genetics and genomics topics. Students and independent researchers present their research and findings during poster presentation sessions.

The FGS is an opportunity for Genetics & Genomics PhD students to present their work, hear from exceptional researchers across different fields of genetics and genomics, and network with other scientists.

Genetics & Genomics Travel Awards

Travel to conferences, symposia, and special research opportunities is essential for the professional development of research students. The G&G program offers a limited number of travel awards each year to support students traveling to conferences to present their research and represent the program.

Students can receive funding for a domestic trip (\$750) annually and one international trip (\$1000) during their time in the program. For travel to be eligible for funding, students must make a presentation during their trip, and acknowledge the program on their poster or slides. Additionally, some funding for the travel must be provided through the student's mentor's home department before UFGI funds can be applied towards the trip.

UFGI Seminars & Trainee Lunches

The UFGI Seminar Series is a weekly event where visiting and internal speakers give talks about their research. Researchers come from all different fields of genetics and genomics. The seminar series is a unique opportunity to learn from leaders in the field about their research and be exposed to different applications of genetics and genomics.

The UFGI provides a trainee lunch with each seminar speaker. G&G students receive first priority to attend these lunches. Food is always provided and it is an excellent opportunity for students to network with researchers outside of UF.

Admissions

The Genetics and Genomics Graduate Program is a highly selective PhD program. While the criteria outlined below are minimum requirements, incoming students typically have higher than the minimum criteria.

All applications to the Genetics & Genomics PhD program must be submitted via the UF Graduate School application system: <https://admissions.ufl.edu/apply/graduate/>

Grade Point Average (GPA)

The University of Florida requires a Bachelor's degree from an accredited college or university before the start of the PhD program. Applicants must have a minimum GPA of 3.0/4.0 in their last two years of undergraduate studies.

Letters of Recommendation

At least three letters of recommendation are required.

These letters should be from individuals you know in a professional capacity who can speak to your potential for success in graduate school.

Curriculum Vitae (CV)

Your CV should include any experiences and information relevant to your graduate application.

Personal Statement

The personal statement can include topics such as why you are interested in the Genetics & Genomics program, your previous experiences, your goals for graduate school and beyond, what strengths you bring to the program and others.

The goal is to help the Admissions Committee learn more about why you will be successful in the Genetics & Genomics Program.



Complete applications
must be submitted by
December 1st.



The Admissions committee will
review applications and begin
to invite applicants to interview
in mid to late January.

International Students Only: English Proficiency

English Proficiency scores are required from international students from non-exempt countries who do not have a Master's degree or higher from an English-speaking institution.

See <https://admissions.ufl.edu/apply/international> for details on acceptable tests.

Optional: Faculty Interests

Applicants can consider reaching out to UF Genetics Institute faculty they may be interested in working with.

This can help students gain a better understanding of the research that is currently happening in the UFGI so they can assess their own fit for our program.

Research Statement

The purpose of the Research Statement is to help the Admissions Committee understand your current knowledge of genetics and genomics, your fit to the program, and your ability to articulate and motivate an interesting research problem.

The Research Statement helps the Admissions Committee gain a better understanding of you as a future scientist.



Interviews will take place
in late January through
early March.



Offers will be made
in mid to late March
through early April.

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