Departments

The IGERT Program brings together faculty from several departments across six colleges. Many students will come from these departments, but students in any Ph.D. program at the University of Arizona are eligible to apply for IGERT support.

- Anthropology
- Applied Mathematics
- Biochemistry
- Cancer Biology
- Cell Biology and Anatomy
- Computer Science
- Ecology and Evolutionary Biology
- Management and Information Systems
- Mathematics
- Molecular and Cellular Biology
- Neurosciences
- Pharmacology and Toxicology
- Plant Pathology
- Plant Sciences
- School of Natural Resources

Graduate Interdisciplinary Programs

- Entomology and Insect Science
- Genetics

On-campus Facilities

Students in the IGERT Program have access to various facilities and resources for genomics, including genotyping, sequencing, microarray research, and computers for biocomputing needs.

- Genomic Analysis and Technology Core
- Biotechnology Computing Facility
- Proteomics Analysis Lab
- Bio5

Founded in 1885, The University of Arizona is located in the heart of Tucson, surrounded by mountains and the breath-taking beauty of the Sonoran Desert.

The Sonoran Desert is home to about 60 mammal species, 100 reptile species, 30 species of native freshwater fish, 350 bird species, 1,200 species of bees and 2,000 plant species. The flowering plants draw a variety of pollinators, including the greatest diversity of hummingbirds and butterflies in the United States.
Supported by the National Science Foundation (NSF), the Integrative Graduate Education and Research Traineeship (IGERT) Program in Comparative Genomics is an interdepartmental training program intended to foster links among departments and provide graduate training and opportunities in three areas: functional genomics, computational biology and evolution. Students are chosen from each of these areas but are expected to obtain training across all three disciplines.

The IGERT program provides two-year fellowships to incoming students and one-year fellowships to continuing students. Students may be in any Ph.D. program at the University of Arizona, but must be a United States citizen or permanent resident. Fellowship support is provided to students working in functional, evolutionary or computational genomics.

New kinds of data in the biological sciences are allowing scientists to shift their focus from studies of one or few genes to those involving the functions and interactions of multiple genes, or even the totality of genetic information in an organism. Among the major challenges in the coming years will be understanding the structure of genomes and associating total genetic content with biological function and innovation. Discoveries in genomics will have a profound impact on agriculture, medicine, and engineering, and will provide insights into the relationships among living organisms and the origins of biological complexity. The University of Arizona is ideally suited to train students in genomics, with a large, strong and diverse faculty in the biological and computational sciences.

Benefits of IGERT

**Collaboration**
A network of students and faculty in various disciplines

**Funding**
$30,000 stipend per year plus travel and research funds, out-of-state tuition and health insurance

**Coursework and Research Experience**
Training in genomics through courses and lab rotations

**Outreach**
Participation in outreach and teaching activities in local schools

How to Apply

Prospective students should apply to the graduate program of their choice at the University of Arizona and to the IGERT program. Application deadline for incoming students is February 1st each year. Application deadline for continuing University of Arizona students is April 15th each year.

Please visit our website for more information and application details:
www.genomics.arizona.edu

Contact

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Courses

All students are required to take the Foundations course in the fall semester. This course has three objectives. First, we are interested in providing a core of background information relevant to evolutionary, functional and computational issues in genomics. This provides the assurance that all students in our program are equipped with a standard base of knowledge across our three areas. Second, we are interested in providing hands-on training and exposure to modern techniques in genomics and bioinformatics. This includes both molecular and computational techniques. Third, we wish to foster meaningful interactions and collaborations among students from different areas.

The Problems course, which all students take in the spring semester, is a question-driven workshop style seminar. The purpose of this course is for students and faculty to work together to apply the ideas developed in the Foundations course to a real problem. Students identify and collaborate on research projects with the aim of publishing a multi-authored paper at the end of the semester.

“I was one of the first students to be supported by the IGERT Genomics fellowship. The program provided me with a strong foundation in a rapidly expanding and increasingly important discipline. The courses were excellent and topical, and interaction with visiting scientists was exciting. I also connected with students working on aspects of genomics I would normally not encounter. This diversity in backgrounds often allowed the same biological problem to be addressed from completely different angles in discussion. For students seeking interdisciplinary training in genomics, the program receives my strongest recommendation.”

-Bret Payseur
Post Doctoral, Cornell University
Asst. Professor, Dept. of Genetics
University of Wisconsin-Madison
IGERT Alumnus