UW-Madison Genetics Training Program Overview

Genetic research is among the most important contemporary areas for both fundamental discovery and advancement of human health. Understanding how functional information is encoded in a genome, how genetic differences across individuals influence phenotypic variation including disease susceptibility, and how cellular and developmental mechanisms are influenced by mutation and evolution is central to the mission of NIH, and NIGMS in particular. The promise of personalized medicine and patient genome sequencing is driving an even greater demand for expert geneticists who can interpret genetic information. **The Genetics Training Program at the University of Wisconsin-Madison (UW-Madison)** combines an established tradition of excellence in training generations of genetics researchers with a forward-looking vision of the changing landscape of career opportunities and trajectories. **Our mission is to train the next generation of genetic researchers in rigorous, responsible, cutting-edge research that addresses modern questions in genetics and genomics, while preparing students for diverse careers that leverage that training.**

We have maintained one of the oldest and largest NIH training grants in Genetics for nearly 45 years:
- Now in its 45th year of continuous funding, since 1975
- The program hosts ~50-55 students, with class sizes of 8-12 students
- The training grant provides student stipend for 1-2 years of training

We have had great success preparing students for diverse careers that leverage a PhD in genetics.
- Of students funded by the T32 training grant in the last 15 years:
  - 97% remain in science-related fields, including:
    - 27% currently in postdoctoral positions
    - 18% leading academic labs
    - 18% in human clinical genetics and genomics (80% of those board certified)
    - 20% in the biotech industry
    - 9% in science education and administration
    - 7% in other careers leveraging a doctorate in genetics (including an analyst for the Center for Disease Control, an NIH program officer, and a professional scientific editor).

We offer a diverse set of trainers who are active in the program and serious about mentoring
- Includes ~75 trainers in 22 departments and 4 colleges, with breadth of research tools & topics
- Research in the program is highly collaborative
  - 90% of trainers have published with another lab in the last 5 years
  - 33% (49% of those with NIH funding) share at least one grant with another PI
- Trainers are committed to training students
  - 87% of trainers have graduated a student in the last 10 years
  - 89-93% of their students and postdocs, respectively, remain in science today
- Trainers actively participate in the program
  - 73% serve on at least one genetics thesis committee
  - 33% teach a required course or participate in a required workshop
  - Nearly all have participated in recruiting, retreat, our seminar series, or other events

We have an outstanding cohort of engaged students:
- 100% of Genetics students from the last 10 years published manuscripts (2.9 papers on average, with 1.6 first-authored papers on average per student)
- Students are active in programmatic activities, governance and professional development
- We strive to maintain a vibrant community that values diversity and inclusion in all senses, which enables the best scientific training, research, and innovations.

Find out more about the UW-Madison Genetics Program: [https://genetics.wisc.edu/ph-d-program/](https://genetics.wisc.edu/ph-d-program/)