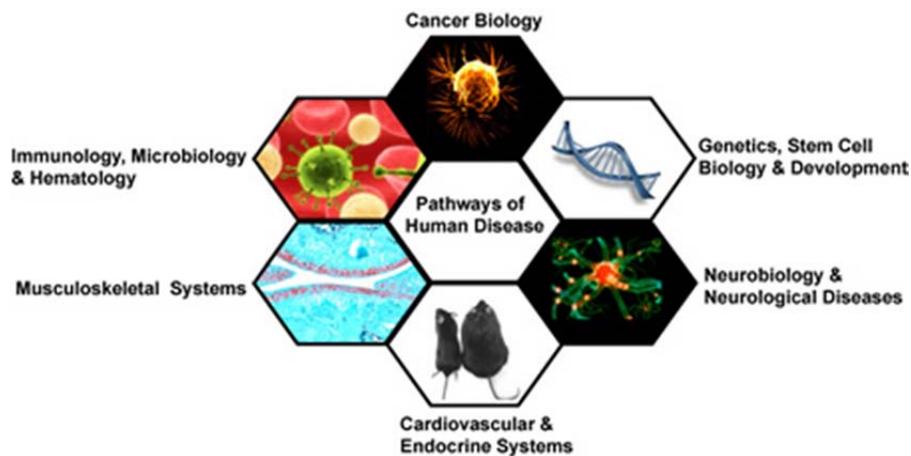




## Education at URMIC – Program Features

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**Program:** [Pathways of Human Disease PhD in Pathology](#)

**Program Directors:** Robert Mooney, PhD and Therese Wiedmer, PhD

**Program Coordinator:** Taimi Marple, MS

**Current Faculty Members:** 60

**Degree offered:** PhD in Pathology

**Contact Number:** 585-275-1866

**Contact Email:** [Taimi\\_Marple@urmc.rochester.edu](mailto:Taimi_Marple@urmc.rochester.edu)

## About the Program

The Pathways of Human Disease Graduate Program in Pathology represents one of thirteen PhD programs at the University of Rochester Medical Center. Our program is distinctive in its multi-disciplinary approach to graduate education. While the program is centered in the Department of Pathology, the participating faculty are drawn from at least 16 clinical and basic science departments. This provides diverse education and research experiences and thesis opportunities for our students. Our educational objectives are somewhat different from a traditional graduate program. The research and education focus on an understanding of human disease mechanisms. While students learn the latest advances in cell biology, biochemistry, and molecular biology, they are also well grounded in human anatomy, physiology, and pathology in both the classroom and in the research laboratory. The objective is to prepare our students for careers in the basic sciences and in translational research, both of which are demanding increased relevance to human health and disease.

## Research

Approximately 60 researchers comprise the Pathways of Human Disease Pathology PhD Program faculty. These faculty represent 16 departments in the School of Medicine and Dentistry:

Anesthesiology	Biochemistry and Biophysics	Biomedical Engineering
Center for Oral Biology	Biomedical Genetics	Dermatology
Environmental Medicine	Medicine	Microbiology & Immunology
Neurosurgery	Neurology	Ophthalmology
Orthopaedics	Pathology & Laboratory Medicine	Pharmacology & Physiology
Urology		

Our faculty are engaged in a broad range of human disease research that creates a diverse training environment. They provide a breadth of scientific backgrounds and experience; exciting cutting-edge research projects with opportunities to create new knowledge through creative thinking, publications, and funding. These faculty all have the common goal of training exceptional students in human disease-based research. A detailed description of faculty research interests can be found [here](#).

## About Our Students

Approximately 50 students are enrolled in the Pathology PhD program. Five to eight new students enter each year.

For our Pathology graduate students, the majority of the educational activities in the first year are classroom-based. Once a week, students gather for the Pathology Student Seminar where students give presentations on their research to fellow students and faculty. Our students also meet for a Pathology Graduate Lunch Seminar twice per month for student-invited speakers who give presentations on research, professional development, science careers in academia, industry and government, and career alternatives. Students also give presentations on their native countries and world travel.

American students have hometowns in California, Illinois, Michigan, Missouri, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, Puerto Rico, Utah, and Washington. International students have come from the Bahamas, Canada, China, South Korea, Saudi Arabia, Sri Lanka, Taiwan, Trinidad and Turkey.

Undergraduate majors of our students have included biology, biochemistry, biomedical engineering, biophysics, biotechnology, cell biology, computer science, engineering, genetics, microbiology & immunology, molecular biology, nursing, pharmacy, and psychology.

## **What Makes Us Unique?**

The *Pathways of Human Disease Graduate Program in Pathology* offers a unique doctoral training experience for students who wish to pursue careers in the biomedical sciences, either in academia or industry. Unlike other programs, our curriculum trains students in human disease research using the entire spectrum of scientific knowledge from the molecular level to the whole organism. Our faculty are drawn from 16 of our clinical and basic science departments at the University of Rochester Medical Center. This research diversity provides the opportunity for our students to study human disease mechanisms from many perspectives, including a strong clinical focus.

Our Pathology PhD students utilize the same cutting edge biochemical and genetic research techniques that other biomedical research trainees use. Our students also complete core courses in biochemistry, cell biology, and molecular genetics. There are two important differences, however, that distinguish our training program: first, our Pathology PhD students have a curriculum that also emphasizes human anatomy, physiology, and mechanisms of human disease (i.e., pathology); second, our students universally pursue thesis research that have projected outcomes for understanding human health and disease.