University of Pittsburgh | School of Medicine Graduate Studies

RCSI UNIVERSITY OF MEDICINE AND HEALTH SCIENCES

Dual PhD Program in Precision and Regenerative Medicine PRM

University of Pittsburgh and Royal College of Surgeons in Ireland (RCSI) in Dublin



The **PITT–RCSI PhD Program in Precision and Regenerative Medicine** (PRM) is an innovative, research-intensive international doctoral program designed to advance discovery at the forefront of precision and regenerative medicine—an emerging and transformative field in biomedical science. Established as a joint initiative between the University of Pittsburgh and the Royal College of Surgeons in Ireland (RCSI) in Dublin, it is the first doctoral program at Pitt to award a dual PhD degree conferred by two international institutions.

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The program provides exceptional graduate training environment that prepares highly motivated students to address complex challenges in human health through interdisciplinary research. Each student is co-mentored by two thesis advisors—one at Pitt and one at RCSI—and conducts a collaborative research project. During the first year, students are based at Pitt, where they complete coursework and participate in three laboratory rotations involving joint projects with RCSI . At the end of the first year, half of the cohort remains at Pitt while the other half relocates to RCSI to begin thesis research. After two years, students transition to the partner institution to continue their dissertation research in their collaborators' laboratories. By conducting research on two continents and training in complementary scientific environments, graduates are well prepared for careers in academia, biotechnology and pharmaceutical industries, regulatory agencies, and other research-intensive sectors.

The program is administered jointly by the University of Pittsburgh and RCSI through a governance structure that includes a Steering Committee, Curriculum Committee, Admissions Committee, and Milestones Committee, each composed of equal representation from both institutions.

Research within the PRM program is discovery-driven and multidisciplinary, bringing together faculty from the Pitt School of Medicine, Swanson School of Engineering, McGowan Institute for Regenerative Medicine, Magee-Womens Research Institute, Institute for Precision Medicine, and other affiliated centers. RCSI faculty represent academic departments with expertise in precision and regenerative medicine. Research areas include, but are not limited to:

- **Genetic Engineering & Gene Therapy** Investigating novel methods for treating rare diseases including cancer through genomic modification.
- **Stem Cells & Tissue Engineering** Developing regenerative therapies using biomaterials and 3D tissue/cell models.
- **Pharmacogenomics** Studying how genetic variations affect individual responses to drugs to personalize clinical care.
- **Computational Biology & AI** Utilizing clinical and experimental big data and artificial intelligence to drive precision and regenerative medicine discoveries.
- **Neural Biomaterials** Researching materials and interfaces designed for nervous system integration and repair.

PRM faculty Includes world-leading scientists and researchers from both the University of Pittsburgh and the Royal College of Surgeons Ireland with a history of excellence in graduate training, research and innovation.
Facilities Both institutions have state-of-the art research facilities and resources.