

# Physician Scientist Training Program

Basic and Translational Research

**University of Pittsburgh**  
School of Medicine

[pstp.pitt.edu](http://pstp.pitt.edu)

# The Program

The Physician Scientist Training Program (PSTP) is a merit-based five-year program through which students with a strong interest in basic or translational research can begin to build a career in academic medicine.

## Benefits

- The ability to join internationally renowned departments that help maintain the University's ranking in the top 10 of NIH-funded medical schools
- Partial tuition coverage for all four years of medical school
- Paid summer research rotations before and after MS1
- Paid research year between MS2 and MS3

- Membership in a special community of passionate medical researchers
- Enrichment curriculum focusing on skills necessary for a career as a physician scientist
- Individualized research and career mentoring
- The opportunity to write and submit an independently generated grant proposal

## Our Graduates

- Consistently match at the country's most academically accomplished residency programs
- Publish, on average, three papers each
- Present at national and international conferences
- Obtain faculty positions at leading academic institutions

## PSTP Curriculum

The PSTP curriculum augments the Medical School curriculum to help students build the skills and knowledge base to conduct significant biomedical research and to successfully navigate a career pathway as academic physician scientists.

<ul style="list-style-type: none"> <li>• Laboratory Rotation (1)</li> <li>• Professional Development Course (1)</li> <li>• Work in Progress (WIP) Seminars</li> </ul>	SUMMER
<ul style="list-style-type: none"> <li>• Research Basis of Medical Knowledge Course (1)</li> <li>• Career Advisor Meetings</li> <li>• Work in Progress (WIP) Seminars</li> </ul>	SOM1
<ul style="list-style-type: none"> <li>• Laboratory Rotation (2)</li> <li>• Professional Development Course (2)</li> <li>• Work in Progress (WIP) Seminars</li> </ul>	SUMMER
<ul style="list-style-type: none"> <li>• Research Basis of Medical Knowledge Course (2)</li> <li>• Career Advisor Meetings</li> <li>• Work in Progress (WIP) Seminars</li> </ul>	SOM2
<ul style="list-style-type: none"> <li>• Career Advisor Meetings</li> <li>• Work in Progress (WIP) Seminars</li> </ul>	RESEARCH YEAR
<ul style="list-style-type: none"> <li>• Career Advisor Meetings</li> <li>• Work in Progress (WIP) Seminars</li> </ul>	SOM3
<ul style="list-style-type: none"> <li>• Career Advisor Meetings</li> <li>• Work in Progress (WIP) Seminars</li> </ul>	SOM4

# Application guidelines

## Eligibility

All individuals receiving an MD interview invitation at the University of Pittsburgh School of Medicine (UPSOM) are offered the opportunity to apply to the PSTP. We also have a limited number of spots for internal (MS2) applicants.

Successful Applicants have

- High levels of scholastic achievement
- Previous basic or translational research experience
- A well-defined interest in academic medicine

Deadline for application and recommendations:  
February 15

## How to Apply

Applicants will be able to access the PSTP supplemental application after receiving an interview invitation from the UPSOM admissions committee. Two letters of recommendation from instructors and/or scientists who are well acquainted with the applicant's research training are required. PSTP recommenders can be identical to MD recommenders, but the letters must be submitted separately to the PSTP.

Recommenders receive a request for letters once the supplemental application has been completed. All submissions are deemed complete with the receipt of the PSTP supplemental application and two letters of recommendation.



# Application Guidelines

## PSTP Selection Process

The PSTP expects to receive approximately 80 applications for a maximum of eight available positions. About 20 applicants will be offered interviews at our expense. The interviews will take place from mid-January until early March with decisions communicated by the beginning of April.

While completing the application, all interviewees are asked to identify specific

investigators in Pittsburgh with whom they would like to meet on the interview day. The interview format consists of separate half-hour interactions, spread throughout the day, with members of the selection committee, current PSTP students, and potential investigators.



## Contact Us

University of Pittsburgh Physician Scientist Training Program  
Scaife Hall

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# Research

## Areas of Research

The spirit of interdisciplinary collaboration that pervades the University of Pittsburgh creates a dynamic and ideal environment for promising students to launch careers that integrate the clinical and basic sciences. As a student in the PSTP, you will find a wide array of scientific areas in which you might receive training. You may choose to work in any approved discipline, but the following list provides a small sample of the possible areas for basic research:

- Human Genetics
- Oncology
- Immunology
- Neuroscience
- Molecular Biology
- Bioengineering
- Psychiatry
- Tissue Engineering
- Regenerative Medicine
- Biochemistry and Molecular Genetics
- Bioinformatics
- Cell Biology and Molecular Physiology
- Cellular and Molecular Pathology
- Computational Biology
- Molecular Pharmacology
- Epidemiology



## Current PSTP Student Research Projects



### **Pooja Karukonda**

“Investigating the Role of Radiation Therapy in Promoting an Anti-Tumor Response in the Host”

Mentor: Chris Bakkenist, PhD



### **Thiagu Meyyappan**

“In Vivo Induction of Antigen Specific T-regs to Prevent the Onset of Type 1 Diabetes”

Mentors: Steve Little, PhD, and Jon Piganelli, PhD



### **Filip Istvanic**

“Sonoreperfusion for Microvascular Obstruction Using Microbubbles and Tissue Plasminogen Activator”

Mentor: John Pacella, MD, MS



### **Mondira Ray**

“Construction and Validation of Pathway-Oriented Features for Use in Machine Learning Programs to Predict Breast and Lung Cancer Outcomes”

Mentors: Rebecca Jacobson, MD, MS, and Ziv Bar-Joseph, PhD



### **Audrey Kindsfather**

“Temporal and spatial effects of advanced maternal age and embryo culture on imprinted DNA methylation and mitochondrial function in the pre-implantation mouse embryo”

Mentor: Mellissa Mann, PhD

# The PSTP Experience

## Studying in Pittsburgh

By living in the city of Pittsburgh, you will be immersed in the culture and traditions of one of the nation's most livable cities. The school is in close proximity to many attractive and affordable neighborhoods. The city of Pittsburgh boasts an enormous array of cultural attractions, such as museums and galleries, music, dance and symphony performances, professional and amateur sporting events, and numerous parks and outdoor recreational facilities. Pittsburgh restaurants have received numerous national accolades for their quality and creativity and offer a variety of innovative and reasonably priced dishes.



# University of Pittsburgh

## School of Medicine

Physician Scientist Training Program  
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For information on University equal opportunity and affirmative action programs, please contact: University of Pittsburgh; Office of Diversity and Inclusion; Katie Pope, Title IX Coordinator, and Cheryl Ruffin, 504 and ADA Coordinator; 500 Craig Hall; 200 South Craig Street; Pittsburgh, PA 15260; 412-648-7860.

For complete details on the University's Nondiscrimination Policy, please refer to Policy 07-01-03. For information on how to file a complaint under this policy, please refer to Procedure 07-01-03.

*\*Except where exempt by federal or state laws.*