



Therapeutics
Graduate Program

WE ARE
TRAINING
PIONEERS



HARVARD
UNIVERSITY

Understanding today's therapies, discovering tomorrow's cures.

The Therapeutics Graduate Program (TGP) provides students with the scientific, laboratory, computational, and professional skills needed to excel in academic and biopharmaceutical careers. We strive to create a diverse, inclusive, and engaged community of students and faculty with shared interests in therapeutics, and provide a collaborative, respectful, and stimulating environment. TGP offers rigorous multidisciplinary training in the sciences relevant to therapeutics discovery, development, and applications to improve the treatment of disease. We provide students with hands-on experiences and networking opportunities that will open fulfilling careers and leadership trajectories in the field of therapeutics.

Core Scientific Curriculum

Translational Pharmacology: BCMP 301qc

Modern Drug Discovery: BCMP 236

Human Physiology, Human Toxicology:

- HBTM 235
- BPH 215
- HMX Physiology

Core Skills Curriculum

Experimental Design: Cell Bio 302qc

Paracurricular Activities: Professional and Career Skills

Quantitative and Computational Skills:

- MedSci 210
- SysBio 320
- XMIT 6.0001

Internship in Biopharmaceutical Companies and Regulatory Science

Objectives of the curriculum

- Create a diverse and inclusive community
- Link training to real-world experiences/internship
- Develop professional and career skills
- Enhance research rigor and reproducibility
- Teach core concepts in therapeutics
 - Drug action and mechanism
 - Target identification and validation
 - Pharmacodynamics
 - Pharmacokinetics
 - Toxicity/adverse events
 - Regulatory sciences

Internship

Training includes a hands-on internship experience. Students are required to complete a 2-4 month internship in one of the following settings:

- Biopharmaceutical Companies
- Regulatory Science
- Clinical Research
- Science Policy and Government

This is a unique requirement that provides students with experiences to enhance mentorship and foster academic/industrial/clinical/regulatory collaborations. To date, students have completed internships in industry in the Boston and San Francisco areas, and in science policy in Washington DC.

Student Quotes

"I can't imagine a better program for learning the fundamentals of drug discovery and getting hands-on experience in industry. Not only will you understand the basics of therapeutic development, but you will enhance your own thesis research, network with like-minded students and experts in the field, and have a good idea what career to pursue after graduation. I couldn't recommended it more."

"The internship is truly a unique experience to gain insight on where you can work after completing your PhD."

"The course work of TGP gave me a solid foundation for my internship and I was able to hit the ground running as soon as I joined my team."

"TGP gives you the chance to network, network, network! This can be key for getting that initial 'in' upon graduation!"

Paracurricular activities

These include discussion groups on academic and non-academic career paths (with guest speakers), internship experience reports, data club, seminars on socio-economic considerations and public health, and the annual Therapeutics symposium and retreat (including scientific presentations and skills development workshops).

Students

Applications are welcome from 1st, 2nd, and 3rd year (G1-G3) students in any of the Harvard Integrated Life Science (HILS) programs.

Program Leadership

Directors:

David Golan and Tim Mitchison

Director of Training and Education:

Catherine Dubreuil

Executive Committee:

Sara Buhrlage

Donald Coen

Philip Cole

Stephen Blacklow

David Glass

Nathanael Gray

Darren Higgins

Peter Sorger

Priscilla Yang

Information session

All G1-G3 HILS graduate students are invited to attend the information session about the program. This is a wonderful opportunity to meet and talk with our students and faculty.

All attendees are invited to stay for the TGP September paracurricular activity that will be held immediately following the information session: a student panel about their internship experiences.

The session will be held in late September at a date, time, and location TBD.

Application

Applications will be accepted until November 1, 2018 so that students may be selected in time to begin the required curriculum in January. Interviews will be conducted in November, and students will be notified of acceptance to the program in December. Applications can be found on our website:

hits.harvard.edu/TGP

Contact

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Harvard Program in Therapeutic Science

A Harvard University program based
at Harvard Medical School

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