

PhD & MD/PhD in Biomedical Sciences— Training Program in Genetics and Genomic Sciences



Icahn
School of
Medicine at
Mount
Sinai

*Graduate School of
Biomedical Sciences*

FACTS AT A GLANCE

- Our Department of Genetics and Genomic Sciences ranks 4th nationally in total NIH funding.
- 122 basic science and clinical research faculty in the Department of Genetics and Genomics Sciences
- State-of-the-art genomics capabilities
- State-of-the-art supercomputers (Minerva) to support big data science
- Located on Manhattan's Upper East Side adjacent to Central Park
- All students receive a competitive support package that includes direct compensation, the full cost of tuition, a comprehensive medical healthcare package, and guaranteed access to highly affordable Mount Sinai housing.

HOW TO APPLY

Students apply online at:

<http://icahn.mssm.edu/apply>

Applications open in mid-August.

Final application deadline: December 1.

CONTACT INFORMATION

Questions about the admissions process:

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Questions about the training program:

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What Makes Our Program Unique

The rapidly evolving fields of Genetics and Genomic Sciences (GGS) are changing modern medicine as we know it. The Graduate School of Biomedical Sciences at the Icahn School of Medicine at Mount Sinai is committed to being in the forefront of that change. Our Graduate GGS training program aims to educate the next generation of young scientists to become independent researchers capable of making meaningful contributions to these fields for the improvement of human health.

As a student in our GGS program, you will work with internationally recognized researchers and educators in some of the nation's best genetics and genomics laboratories and facilities.

We leverage close partnerships between the Icahn School of Medicine and The Mount Sinai Hospital to provide an extraordinary diversity of basic, clinical and translational science, fostered by collaborations across Departments, Institutes and Centers. Our recent partnerships with Rensselaer Polytechnic Institute and Stony Brook Medicine advance opportunities for students.

We emphasize a rigorous, multidisciplinary and highly collaborative research training environment that starts with a thorough grounding in Biomedical Sciences. In the first year, students complete required core coursework and explore different laboratories through short rotations before choosing a specialization and settling into a lab. In the second year, students will present their thesis proposal. In years 3-5, students focus on finishing their thesis work. The average time for students to complete the PhD program is 4.8 years.

Students are encouraged to customize their training through advanced elective courses offered by Departments, Centers and Programs throughout the school, including Neuroscience, Cancer Biology, Biophysics & Systems Pharmacology, Developmental & Stem Cell Biology, Immunology and Microbiology.



Our Students Publish In Top Journals

Here are some recent examples:

Science

Franzén et al (2016) Science 353:827-830

Nature Communications

Wang et al (2016) Nat Commun 7:12846

Beaulaurier et al (2015) Nat Commun 6:7438

Cell Reports

Chung et al (2016) Cell Rep 16:472-486

Moyon et al (2016) Cell Rep 15:748-760

Nature Neuroscience

Huynh et al (2014) Nat Neurosci 17:121-30

Gut

Zhang et al (2016) Gut 65:1754-1764

BMC Systems Biology

McKenzie et al (2016) BMC Syst Biol 10:106



Research Areas of Excellence

Our nationally and internationally recognized faculty are leaders in many research areas:

- Allergy
- Alzheimer's Disease
- Asthma
- Autism
- Bioinformatics
- Cancer Genomics
- Cardiovascular Disease
- Clinical Genetics
- Data Science
- Developmental Biology
- Digital Health
- Epigenetics
- Immunology
- Infectious Disease
- Inflammatory Bowel Disease
- Mathematical Modeling
- Microbiome
- Personalized Medicine
- Population Genetics
- Psychiatric Genomics
- Systems Biology



For a full listing of training faculty and their research interests:

<http://icahn.mssm.edu/education/phd/biomedical-sciences/genetic-genomic>

Recent GGS Alumni Careers

Our graduate students have gone on to become leaders in a wide variety of careers, including:

Faculty Appointments

Case Western Reserve University
Columbia University
Icahn School of Medicine at Mount Sinai
Seton Hall University

Federal Government

FBI

Industry

Amgen
Centogene
Contrafact Corp
Mapi Group
NanoString Technologies
Novartis
Pfizer
Thermo Fisher Scientific
Twist Bioscience

Science Writing and Consulting

BGB New York
Chameleon Communications International
TBWA\WORLDHEALTH

Some have started their own companies

Girihlet



Training Program Leadership

Marta Filizola, PhD

Dean, Graduate School of Biomedical Sciences
Professor, Pharmacological Sciences and Neuroscience

Pamela Sklar, MD, PhD

Chair, Department of Genetics and Genomic Sciences
Professor, Psychiatry, Neuroscience, Genetics and Genomic Sciences

Andrew Kasarskis, PhD

Director, Icahn Institute for Genomics and Multiscale Biology
Associate Professor, Genetics and Genomic Sciences

Eric Schadt, PhD

Dean, Personalized Medicine
Professor, Genetics and Genomic Sciences

Andrew Sharp, PhD

Co-Director, Genetics Training Program
Associate Professor, Genetics and Genomic Sciences

Sander Houten, PhD

Co-Director, Genetics Training Program
Associate Professor, Genetics and Genomic Sciences

Learn more and apply:
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