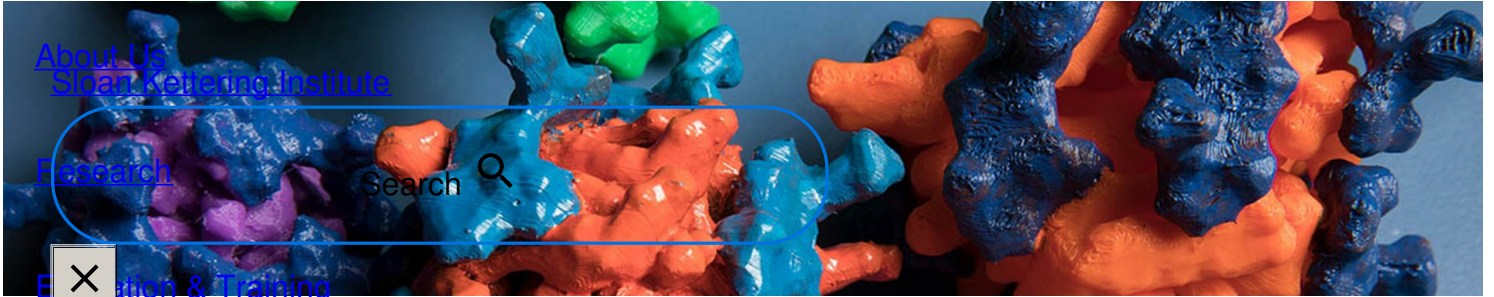


Ready to start planning your care? Call us at [646-926-0945](tel:646-926-0945) to make an appointment.

×



Memorial Sloan Kettering  
Cancer Center



MOLECULAR PHARMACOLOGY PROGRAM  
What can we help you find today?

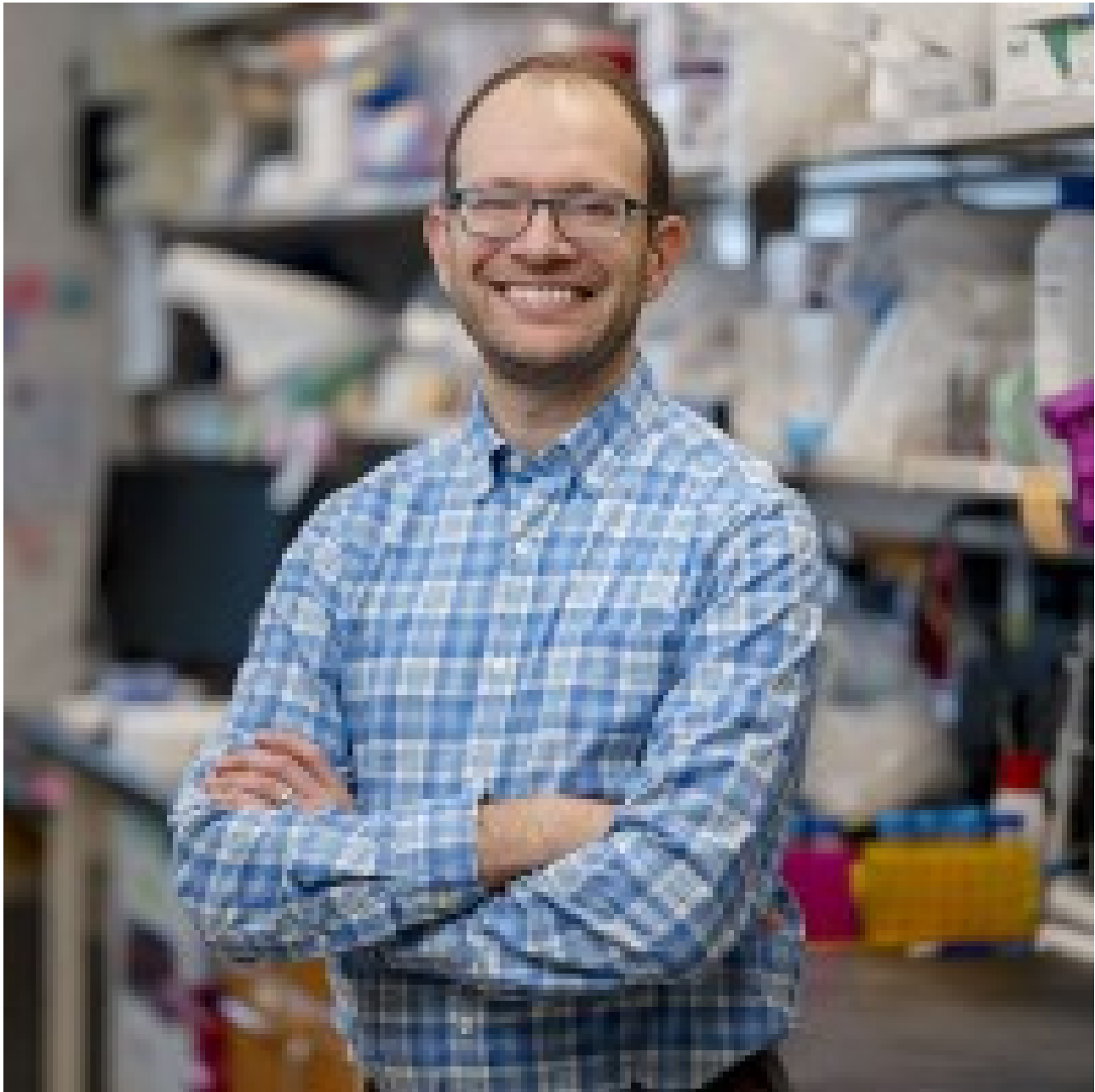
[News & Events](#)

# The Daniel Heller Lab

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**F**



Daniel A. Heller, PhD

Member, Molecular Pharmacology Program, SKI

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## **Cancer Nanomedicine Laboratory**

We are a biomedical engineering laboratory that develops nanotechnologies to advance breakthroughs in the research, diagnosis, and treatment of cancer and allied diseases. We develop drug delivery technologies to target therapies to disease sites, advanced diagnostics to detect disease at earlier stages, and nanosensors to accelerate the discovery of new therapies. Please check out our recent innovations using the “View Lab Overview” button below...

[View Lab Overview \(https://www.mskcc.org/research/ski/labs/daniel-heller/overview\)](https://www.mskcc.org/research/ski/labs/daniel-heller/overview)

## Research Projects

- [Precision Nanomedicines for Targeted Drug Delivery](#)
- [Diagnostic Technologies for Early Cancer Detection](#)
- [Nanosensors to Accelerate Cancer Research and Drug Discovery](#)

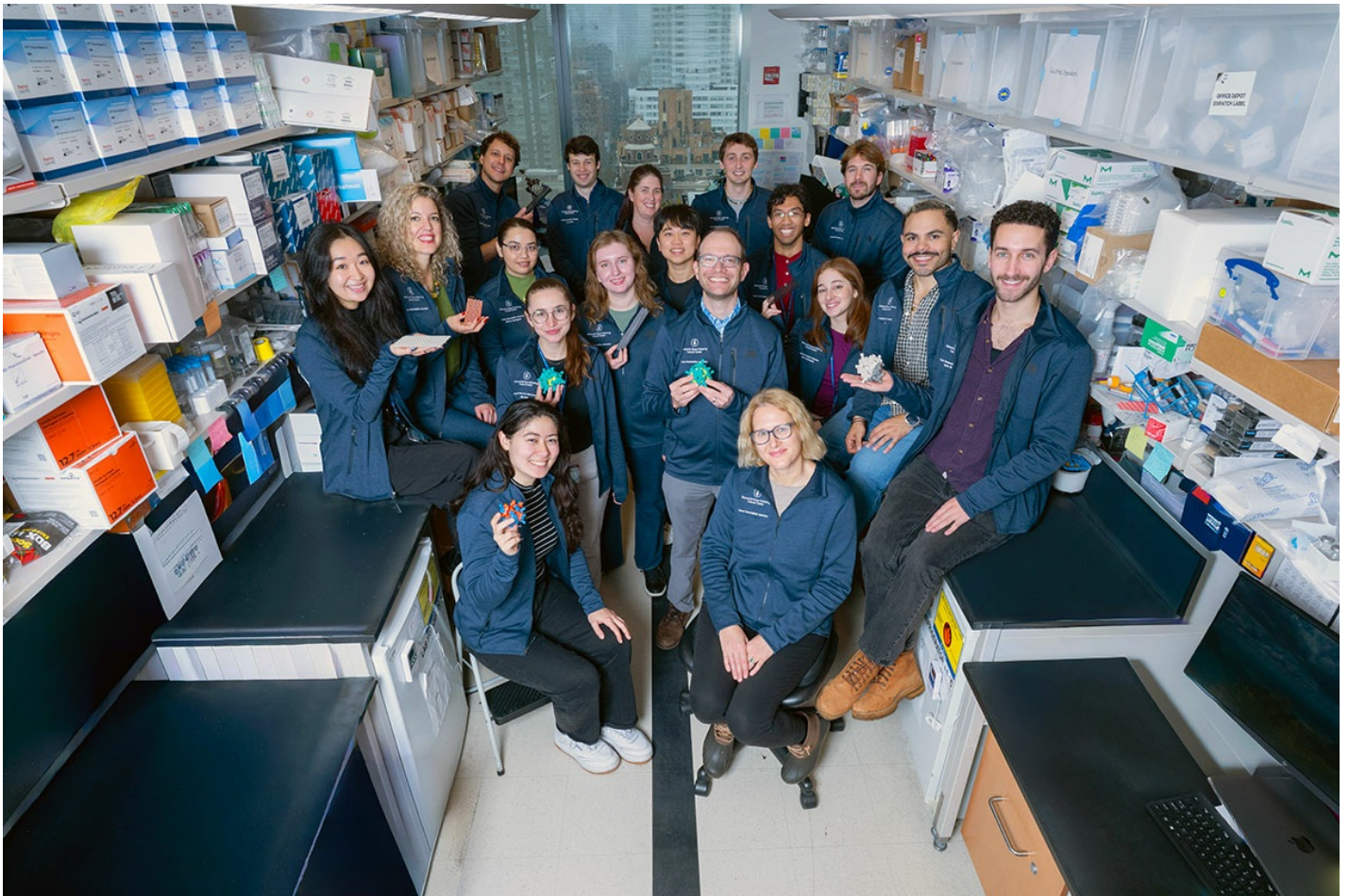
VIDEO | 02:10

Go inside the lab of Daniel Heller from SKI's Molecular Pharmacology Program.

[Video Details \(https://www.mskcc.org/videos/inside-my-lab-daniel-heller\)](https://www.mskcc.org/videos/inside-my-lab-daniel-heller)



Heller Lab members at Cycle for Survival 2025



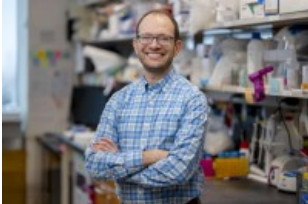
Daniel Heller Lab



The Daniel Heller Lab



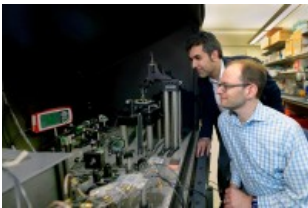
## Featured News



ARTICLE

### [New Liquid Biopsy Uses AI and Nanosensors To Diagnose Brain Tumors](#)

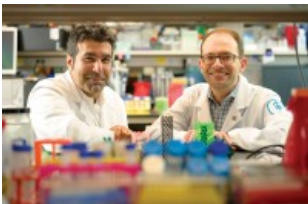
Learn about a blood test using carbon nanotubes that could potentially detect brain tumors.



EDUCATION

### [MSK's Cancer Engineering Focus Draws Top Scientists](#)

Learn how a new cancer engineering PhD program is attracting leading scientists to come to MSK.



EDUCATION

### [A New Breed of Cancer Fighters](#)

Read about a first-of-its kind PhD program that enables aspiring scientists to tackle tough cancer problems.

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# Publications Highlights

[Goerzen D, Kim M, Schroff C, Hoang MN, Wollowitz JS, Kolb A, Walshon JP, McCortney K, Horbinski C, Galbraith K, Raof S, Snuderl M, Ordureau A, Heller DA\\*. Machine perception liquid biopsy identifies brain tumours via systemic immune and tumour microenvironment signature. 2025 Dec 24. doi: 10.1038/s41565-025-02080-2.](#)

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Highlighted in: [MSK news](#)

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[Vogt KC, Panagiotakopoulou M, Manzari Honu MT, Perea AM, Hu X, Yu X, Raziuddin R, LaPlant Q, Ruiz S, Raju GP, Jin J, Scheinberg DA, Heller DA\\*. Tumor microenvironment-targeted PROTAC nanoparticle self-assembly broadly predicted by structural descriptors. Sci Adv. 2025 Dec 5;11\(49\):eadu2292.](#)

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Highlighted in: [MSK news](#)

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[Handbook of Carbon Nanomaterials \(In 2 Volumes\) Volume 11: Carbon Nanotubes in Biomedicine: From Fundamentals to Therapeutic Applications; Volume 12: Advances in Carbon Nanotube Chemistry, Safety, and Applications in Biomedical Research. Pages: 656 Edited by: Daniel A Heller \(Memorial Sloan Kettering Cancer Center, USA\) and Mijin Kim \(Georgia Institute of Technology, USA\) \(2025\)](#)

[View All Publications](#)

## People



## Daniel A. Heller, PhD

*Member, Molecular Pharmacology Program, SKI*

- Biomedical engineer Daniel Heller is Head of the Cancer Nanotechnology Laboratory, which invents disruptive technologies to revolutionize the diagnosis and treatment of cancer and allied diseases.
- PhD, University of Illinois at Urbana-Champaign

✉ [hellerd@mskcc.org](mailto:hellerd@mskcc.org)

Email Address

☎ [646-888-3419](tel:646-888-3419)

Office Phone

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PDF File

### Members



Daniel A. Heller  
Lab Head



Philip Asamani  
Graduate Student, CUNY  
Chemistry PhD Program

Lab  
Alumni

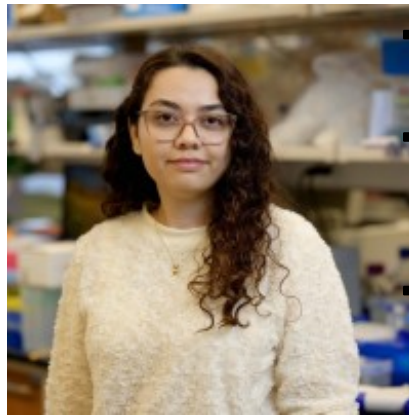
Lab Affiliations

### Achievements

- College of Liberal Arts and Sciences  
Young Alumni Award, University of  
Illinois (2024)



Olivia Barr  
NE WGS Student Graduate  
Studies. Program:  
Neuroscience PhD

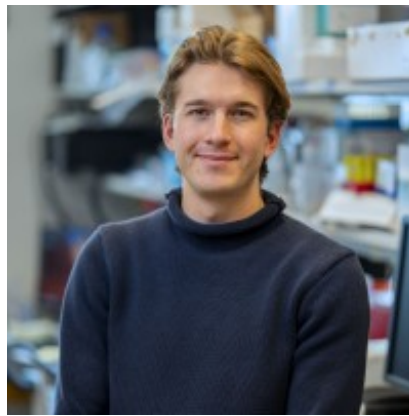


Atena Farahpour  
CUNY  
Chemistry/Nanotechnology PhD  
Program Student

- Life Sciences Invention of the Year, UM Ventures (2023)
- American Institute for Medical and Biological Engineering (AIMBE) Fellow (2021)
- Pharmacology Teaching and Mentoring Award, Weill Cornell Graduate School (2020)
- American Cancer Society Research Scholar (2018)

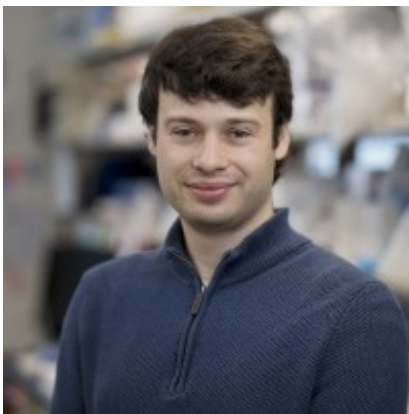


Christian Figueroa-Espada  
Research Scholar



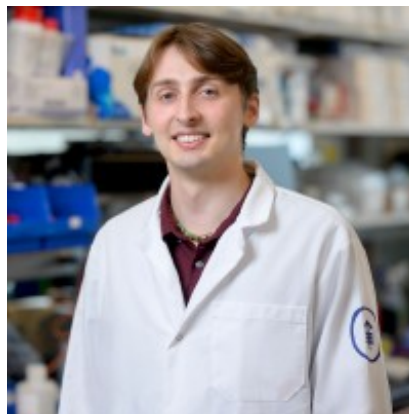
Dana Goerzen  
Graduate Student, Weill Cornell  
PBSB PhD Program

## Lab News & Events



Alec Goffin  
Graduate Student

<https://twitter.com/HellerLab>

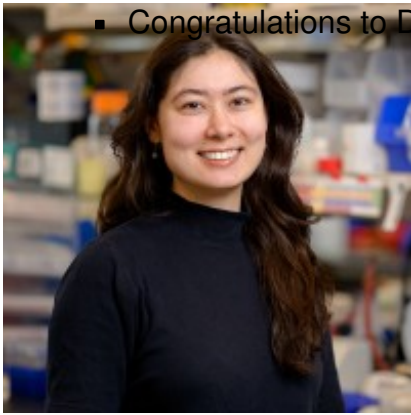


Logan Hillger  
Research Technician

ACCOLADES

## Team Recognitions

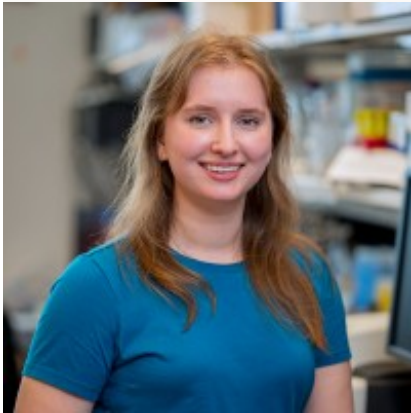
▪ Congratulations to Dr. Magdalini



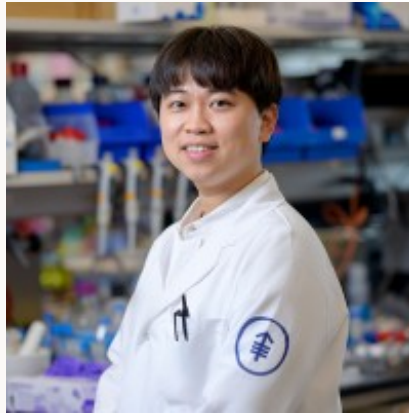
Annie Ikemoto  
GSK Graduate Student



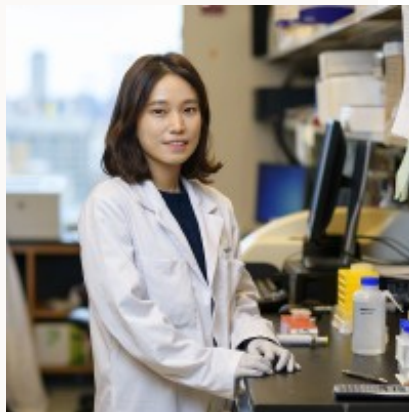
Arianna Izawa-Ishiguro  
Pharmacology PhD Graduate  
Student



Erin Keblish  
Graduate Student, Weill Cornell  
PBSB PhD Program



Dohyeon Kim  
Research Scholar



Mijin Kim  
MSKCC Visiting Investigator;  
Assistant Professor at the  
Georgia Institute of Technology

Panagiotakopoulou for receiving funding from the American Heart Association (AHA) Rapid Impact Research Award (2026) to support research on targeted nanotherapeutic strategies for kidney injury and disease

progression.



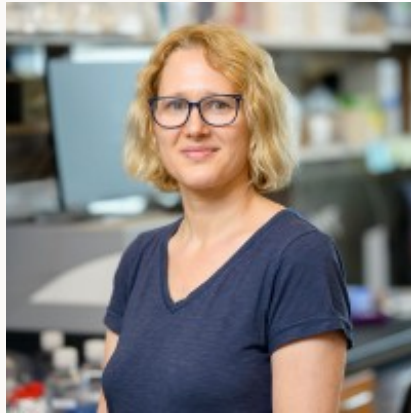
Quincey LaPlant  
Assistant Attending L1,  
Radiation Oncology



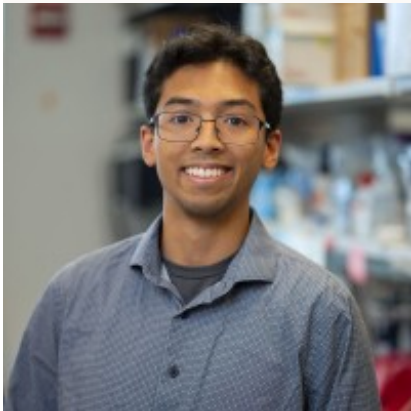
Magdalini  
Panagiotakopoulos  
Senior Scientist



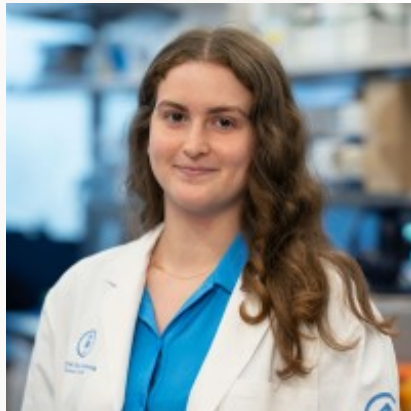
Stanislav Piletsky  
Postdoctoral Scholar



Boglarka Racz  
Laboratory Manager



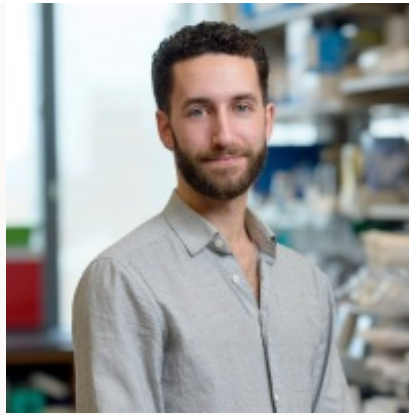
Raashed Raziuddin  
Graduate Student, Weill Cornell  
Pharmacology PhD Program



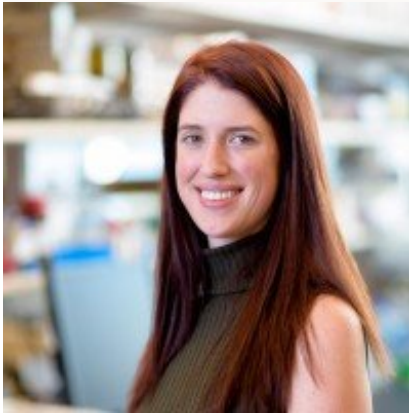
Isabella Richter  
Graduate Student

Congratulations to Dr. ■

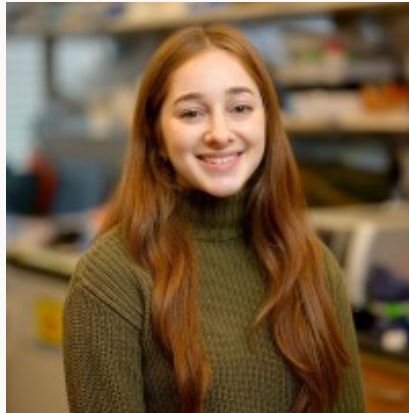
Magdalini Panagiotakopoulou for being awarded the 10x Genomics Xenium In Situ Grant Program. She will profile senescence-associated gene expression in pancreatic ductal adenocarcinoma samples after pre-operative radiation therapy.



Leon Wagner  
NE WGS Student Graduate  
Student



Laura Wilson  
Project Coordinator



Jaina Wollowitz  
Graduate student, Tri-  
Institutional PhD Program in  
Chemical Biology

Congratulations to Dr. Magdalini Panagiotakopoulou for receiving the travel award for the 3rd Probing Human Disease Using Single-Cell Technologies Conference for her presentation on single-cell profiling of the tumor microenvironment in pancreatic cancer.

- Congratulations to Dr. Christian Figueroa-Espada on being named a [2025 STAT Wunderkind](#) ! STAT Wunderkinds recognize the top early-career researchers in health and medicine.
- Congratulations to Erin Keblish for receiving the award for her poster presentation titled "Applications of Novel Nanotube Functionalization Chemistries for Cytokine

Storm Sensing" at the ECS 2025 Meeting!

- Congratulations to Janina Wollowitz for receiving the award for her poster presentation titled "Machine Perception-Based Prediction of Pregnancy Loss," at the Vincent du Vigneaud Symposium!
- Congratulations to Dana Goerzen for receiving the award for his oral presentation titled "Machine Learning-Enabled Liquid Biopsy Identifies Brain Tumors via Systemic Immune and Tumor Microenvironment Signature" at the Vincent du Vigneaud Symposium!
- We are very excited to share that Rein Ulijn and Naxhije Berisha, in collaboration with Daniel Heller, have published an article in Chem by Cell Press. Chem, 2025-01, p.102404, Article 102404
- Congratulations to Erin Keblish for winning the 2024 Three Minute Thesis competition!
- Congratulations to Magdalini Panagiotakopoulos for winning the AI in Drug Delivery award at CRS 2024 Annual Meeting and Expo!
- Congratulations to Jaina Wollowitz on her poster award at the 245th Electrochemical Society Meeting!
- Congratulations to Dana Goerzen for being awarded by the Canadian Institutes of Health Research Doctoral Research Award (Funding Number 193220)!
- Congratulations to Dana Goerzen for being awarded the General Atlantic Graduate Research Fellowship Award!
- Congratulations to Atena Farahpour - awarded the Fall 2023 NanoBioNYC student award in Biomedical Materials!
- Congratulations to Dr. Mijin Kim for being

selected as a 2023 STAT Wunderkind! The award recognizes the work of early-career scientists and clinicians.

- Congratulations to Chen Chen on the Best Poster Award at the 19th Annual Tri-institutional Chemical Biology Symposium!
- Congratulations to Mijin Kim on winning the 2023 MSK Postdoctoral Researcher Award!
- Congratulations to Dr. Mijin Kim - NIH K99/R00 awardee!
- Congratulations to Naxhije Berisha - Tow Fellowship Awardee!
- Congratulations to Dr. Mijin Kim - Kravis WiSE Postdoctoral Fellowship Winner!
- Congratulations to Stephen Ruiz - awarded the MERIT Mandel Graduate Fellowship!
- Congratulations to Magdalini Panagiotakopoulos – Tow Postdoctoral Fellowship Awardee!
- Congratulations to Dr. Mijin Kim – MIT Technology Review 35 Under 35 Innovator!
- Congratulations to Magdalini Panagiotakopoulos on winning the Controlled Release Society Poster Prize
- Congratulations to Erin Keblish on winning the 2023 Electrochemical Society Best Poster Award for Industrial/Applied Science
- Congratulations to Magdalini Panagiotakopoulos for winning 2nd place and the People's Choice Award in the 2023 MSK Postdoc Slam
- Congratulations to Stephen Ruiz for winning the 63rd International Conference on the Bioscience of Lipids Oral Communication Award!!
- Congratulations to Mijin Kim for winning the 2023 STAT Wunderkind Award!!

## Open Positions

To learn more about available postdoctoral opportunities, please visit our [Career Center](#)

To learn more about compensation and benefits for postdoctoral researchers at MSK, please visit [Resources for Postdocs](#)

## Get in Touch

 [hellerd@mskcc.org](mailto:hellerd@mskcc.org)

Lab Head Email

 [646-888-3419](tel:646-888-3419)

Office Phone

## Disclosures

Members of the MSK Community often work with pharmaceutical, device, biotechnology, and life sciences companies, and other organizations outside of MSK, to find safe and effective cancer treatments, to improve patient care, and to educate the health care community. These activities outside of MSK further our mission, provide productive collaborations, and promote the practical application of scientific discoveries.

MSK requires doctors, faculty members, and leaders to report (“disclose”) the relationships and financial interests they have with external entities. As a commitment to transparency with our community, we make that information available to the public. Not all disclosed interests and relationships present conflicts of interest. MSK reviews all disclosed interests and relationships to assess whether a conflict of interest exists and whether formal COI management is needed.

Daniel A. Heller discloses the following relationships and financial interests:

- Celine Therapeutics  
Equity; Professional Services and Activities (Uncompensated)
- Concarlo Therapeutics, Inc.  
Professional Services and Activities
- Lime Therapeutics, Inc.  
Equity; Professional Services and Activities (Uncompensated)

- Mediphage Bioceuticals, Inc.  
Equity; Professional Services and Activities (Uncompensated)
- METiS Therapeutics Inc.  
Professional Services and Activities
  
- Nanorobotics, Inc.  
Equity; Professional Services and Activities (Uncompensated)
- Nine Diagnostics, Inc.  
Equity; Fiduciary Role / Position; Professional Services and Activities (Uncompensated)
- Selectin Therapeutics, Inc.  
Equity; Professional Services and Activities (Uncompensated)
- Singapore-MIT Alliance for Research and Technology  
Professional Services and Activities
- World Scientific Publishing Co Pte Ltd  
Intellectual Property Rights

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This page and data include information for a specific MSK annual disclosure period (January 1, 2024 through disclosure submission in spring 2025). This data reflects interests that may or may not still exist. This data is updated annually.

Learn more about MSK's COI policies [here](#) . For questions regarding MSK's COI-related policies and procedures, email MSK's Compliance Office at [ecoi@mskcc.org](mailto:ecoi@mskcc.org) .

[View all disclosures \(https://www.mskcc.org/disclosures\)](https://www.mskcc.org/disclosures)

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