

**X**



## Make an Appointment

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MEMORIAL HOSPITAL RESEARCH LABORATORIES

## Food & Alcohol Cancers Treatment

[Learn About Cancer & Treatment](#)

# The Kayvan Keshari Lab

## Our mission, vision & core values

## Leadership

## History

## Inclusion & belonging

Annual report

[Give to MSK](#)

## FOR THE MEDIA

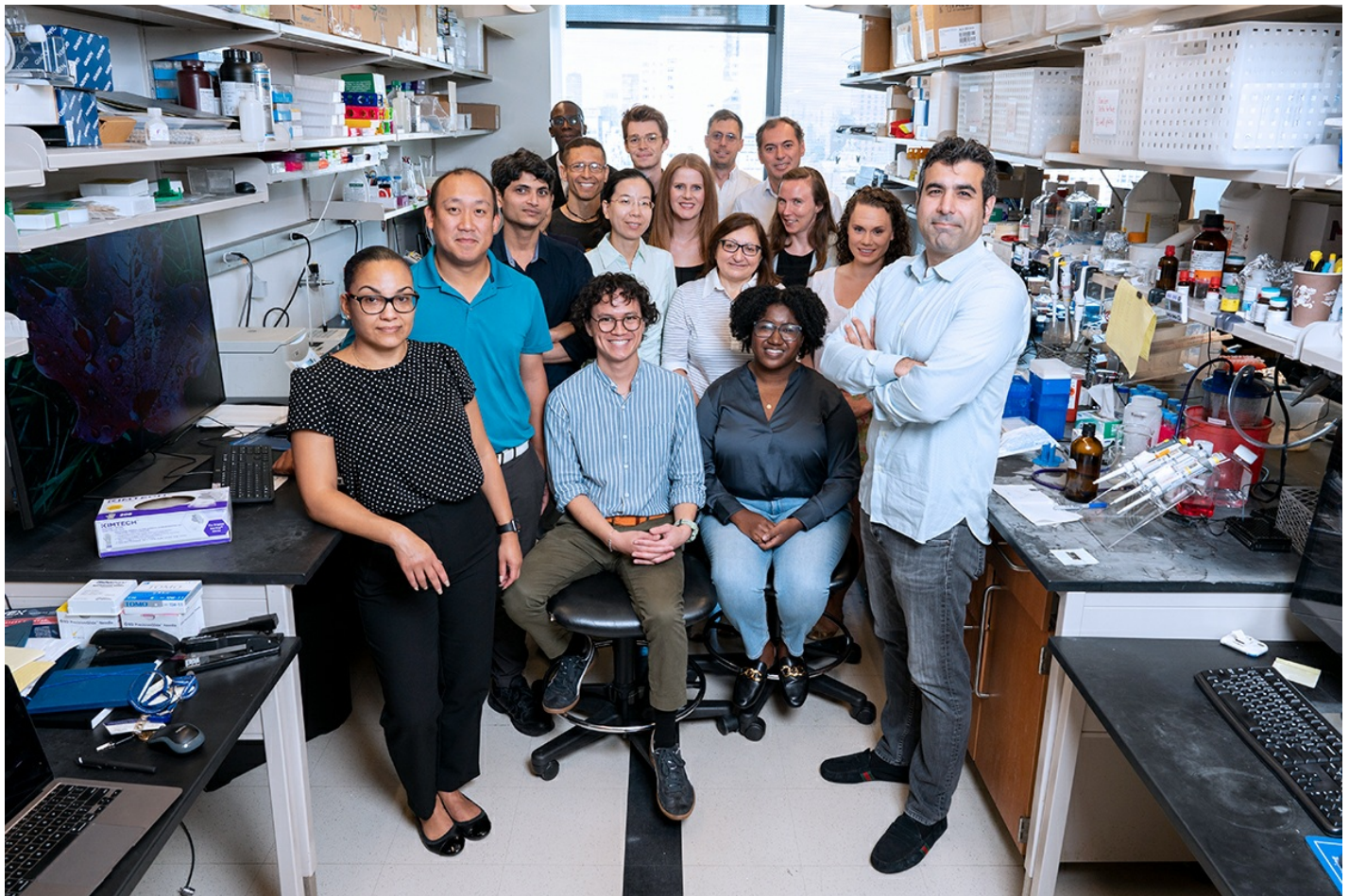


Kayvan R. Keshari, PhD  
Fred Lebow Chair at MSK

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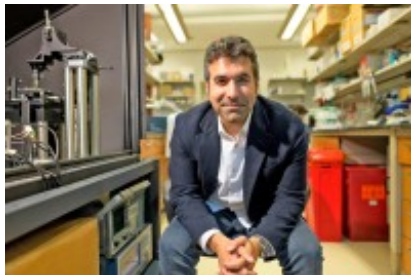
The goal of our research program is to improve our biochemical understanding of cancer metabolism and use metabolic changes to develop non-invasive methods for diagnosis as well as approaches to treat cancer. Our work takes advantage of multi-modality methods at all scales, with a special focus in hyperpolarized magnetic resonance, allowing us the ability to bring these approaches to the clinic.

[View Lab Overview](https://www.mskcc.org/research-areas/labs/kayvan-keshari/overview) (<https://www.mskcc.org/research-areas/labs/kayvan-keshari/overview>)



## Featured News

### IN THE LAB



### [How Reprogrammed Immune Cells Can Use Fructose To Fight Cancer](#)

Learn how engineering immune cells to metabolize fructose could supercharge them to fight cancer.

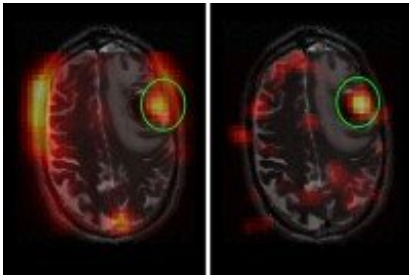
### IN THE LAB



## [Fructose Could Play a Role in Targeting Leukemia](#)

Leukemia cells metabolize fructose in a way that could make them easier to target with drugs.

### FEATURE



## [New Imaging Technique Provides Snapshot of Brain Tumor Activity](#)

A new imaging approach could shorten the time needed to determine whether a brain tumor treatment is working.

[View All Featured News](#)

## Publications Highlights

Schild T, Wallisch P, Zhao Y, Wang YT, Haughton L, Chirayil R, Pierpont K, Chen K, Nunes-Violante S, Cross J, de Stanchina E, Thompson CB, Scheinberg DA, Perry JSA, Keshari KR. (2025) Metabolic engineering to facilitate anti-tumor immunity *Cancer Cell*. Mar 10;43(3):552-562.e9. doi: [10.1016/j.ccell.2025.02.004](https://doi.org/10.1016/j.ccell.2025.02.004).

Patel S, Porcari P, Coffee E, Kim N, Berishaj M, Peyear T, Zhang G, Keshari KR. (2024) Simultaneous noninvasive quantification of redox and downstream glycolytic fluxes reveals compartmentalized brain metabolism. *Science Advances* Dec 20;10(51):eadr2058. doi: [10.1126/sciadv.adr2058](https://doi.org/10.1126/sciadv.adr2058).

Marin-Valencia I, Kocabas A, Rodriguez-Navas C, Miloushev VZ, González-Rodríguez M,

Lees H, Henry KE, Vaynshteyn J, Longo V, Deh K, Eskandari R, Mamakhanyan A, Berishaj M, Keshari KR. (2024) Imaging brain glucose metabolism in vivo reveals propionate as a major anaplerotic substrate in pyruvate dehydrogenase deficiency *Cell Metabolism* Jun 4;36(6):1394-1410.e12. doi: [10.1016/j.cmet.2024.05.002](https://doi.org/10.1016/j.cmet.2024.05.002)

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Keshari KR, Heller DA, Boltyanskiy R, Hricak H, Magaldi T, Overholtzer M. Engineering focusing on cancer. (2024) *Cancer Cell* Jul 8;42(7):1138-1141. doi: [10.1016/j.ccell.2024.04.013](https://doi.org/10.1016/j.ccell.2024.04.013) .

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Pigliapochi R, Peyear T, Ruan T, Keshari KR. (2024) Hyperpolarized Nano-NMR Platform for Quantification of Mass Limited Samples. *Analytical Chemistry*. Jul 22:10.1021/acs.analchem.4c02378. doi: [10.1021/acs.analchem.4c02378](https://doi.org/10.1021/acs.analchem.4c02378)

[View All Publications](#)

## People



## Kayvan R. Keshari, PhD

*Fred Lebow Chair at MSK*

- Biochemist and Bioengineer Kayvan Keshari explores changes in cancer metabolism to develop advanced imaging techniques and cancer therapeutics.
- BA, University of California, Berkeley
- PhD, University of North Carolina Chapel Hill

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

Email Address

🔗 [View physician profile](#)

Physician profile

### Members

Lab

Alumni



Marjan Berishaj

Senior Research Technician

Medicine

- 2019 NIH Rising Stars



Ross Boltyanskiy

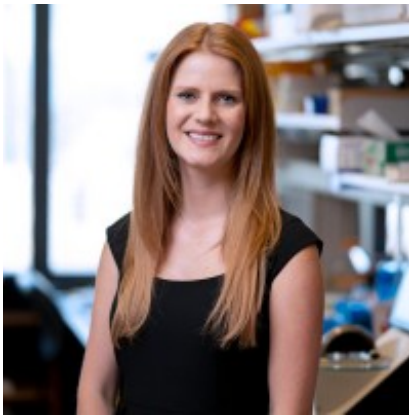
Assistant Director- Imaging &  
Bioengineering Lead

Lab Affiliations

### Achievements

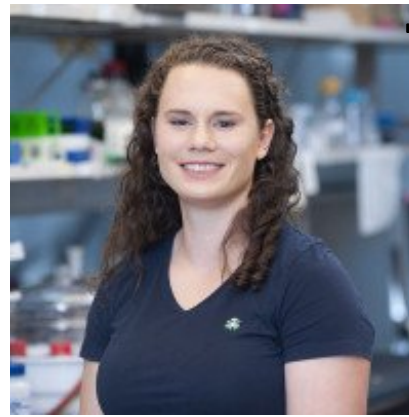
- 2012 Pathway Independent Award
- 2012 Junior Fellow, International Society of Magnetic Resonance in





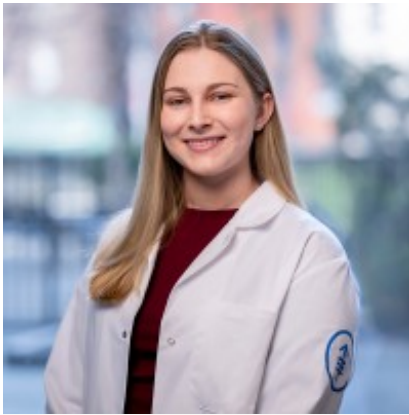
Elizabeth Coffee  
Instructor, Neuro-Oncology

John Consiglio  
Engineering Specialist



Quinlan Cullen  
Graduate Student

- 2020 Distinguished Investigator, American Academy of Radiology and Biomedical Research
- 2024 Fellow, World



Grace Figlioli  
Research Technician



Celia Martinez de la Torre  
Research Scholar

Molecular Imaging Society

## Lab News & Events



Vesselin Miloushev  
Assistant Attending  
UPCOMING EVENT



Saket Patel  
Research Scholar

Thasin Peyear  
Graduate Student

### [Publishing in Nature Biomedical Engineering](#)

Tuesday, January 13, 2026 - 4:00 PM to 5:00 PM

Memorial Sloan Kettering Cancer Center

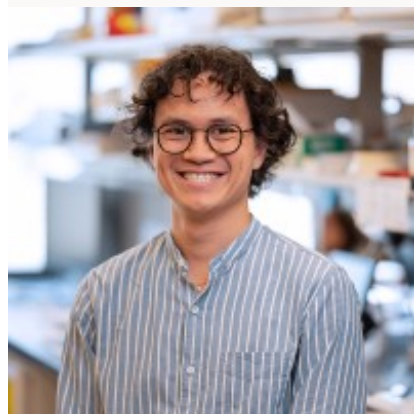


Roberta Pigliapochi  
Senior Research Scientist

Rockefeller Research Laboratories  
Aisha Pintor  
Project Coordinator



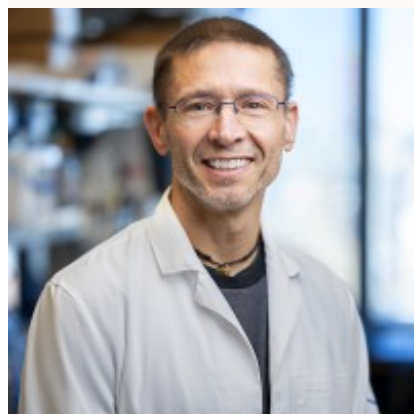
Paola Porcari  
Senior Research Scientist



Thomas Ruan  
Graduate Student



Nancy Santiappillai  
Research Fellow



Thomas Smoot  
Research Technician  
430 East 67th Street  
Room RRL-116  
New York, NY 10065

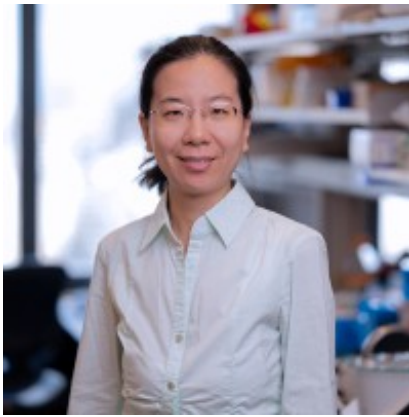


Briana Turner  
Graduate Student

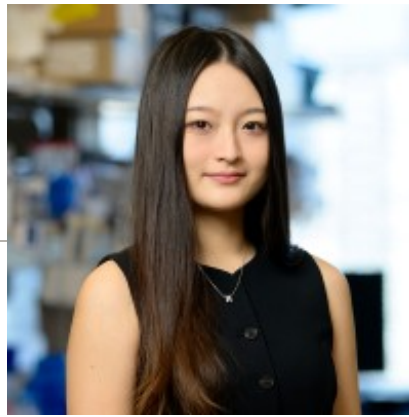
## Open Positions

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





Guannan Zhang  
Research Fellow



Skye Zhao  
Graduate Student

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

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## Career Opportunities

[Apply](#)

[now \(https://www.mskcc.org/research-areas/labs/kayvan-keshari/career-opportunities\)](https://www.mskcc.org/research-areas/labs/kayvan-keshari/career-opportunities)

## Get in Touch

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

Lab Head Email

X\_ [@KeshariLab](#)

## 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.

Kayvan R. Keshari discloses the following relationships and financial interests:

- Atish Technologies, Inc.  
Equity; Intellectual Property Rights
- GE Healthcare  
Professional Services and Activities

- Imaginostics, Inc.  
Equity
- Mi2 Holdings LLC  
Equity; Professional Services and Activities (Uncompensated)
- NVision Imaging Technologies GmbH  
Equity; Professional Services and Activities

The information published here is a complement to other publicly reported data and is for a specific annual disclosure period. There may be differences between information on this and other public sites as a result of different reporting periods and/or the various ways relationships and financial interests are categorized by organizations that publish such data.

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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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