

Ready to start planning your care? Call us at [800-525-2225](tel:800-525-2225) to make an appointment.

×



Memorial Sloan Kettering  
Cancer Center

[About Us](#)  
[Sloan Kettering Institute](#)

CELL BIOLOGY PROGRAM

[Research](#)

## The Marilyn Resh Lab

[Education & Training](#)

**Research**

[News & Events](#)

[Open Positions](#)



Marilyn Resh, PhD  
Member

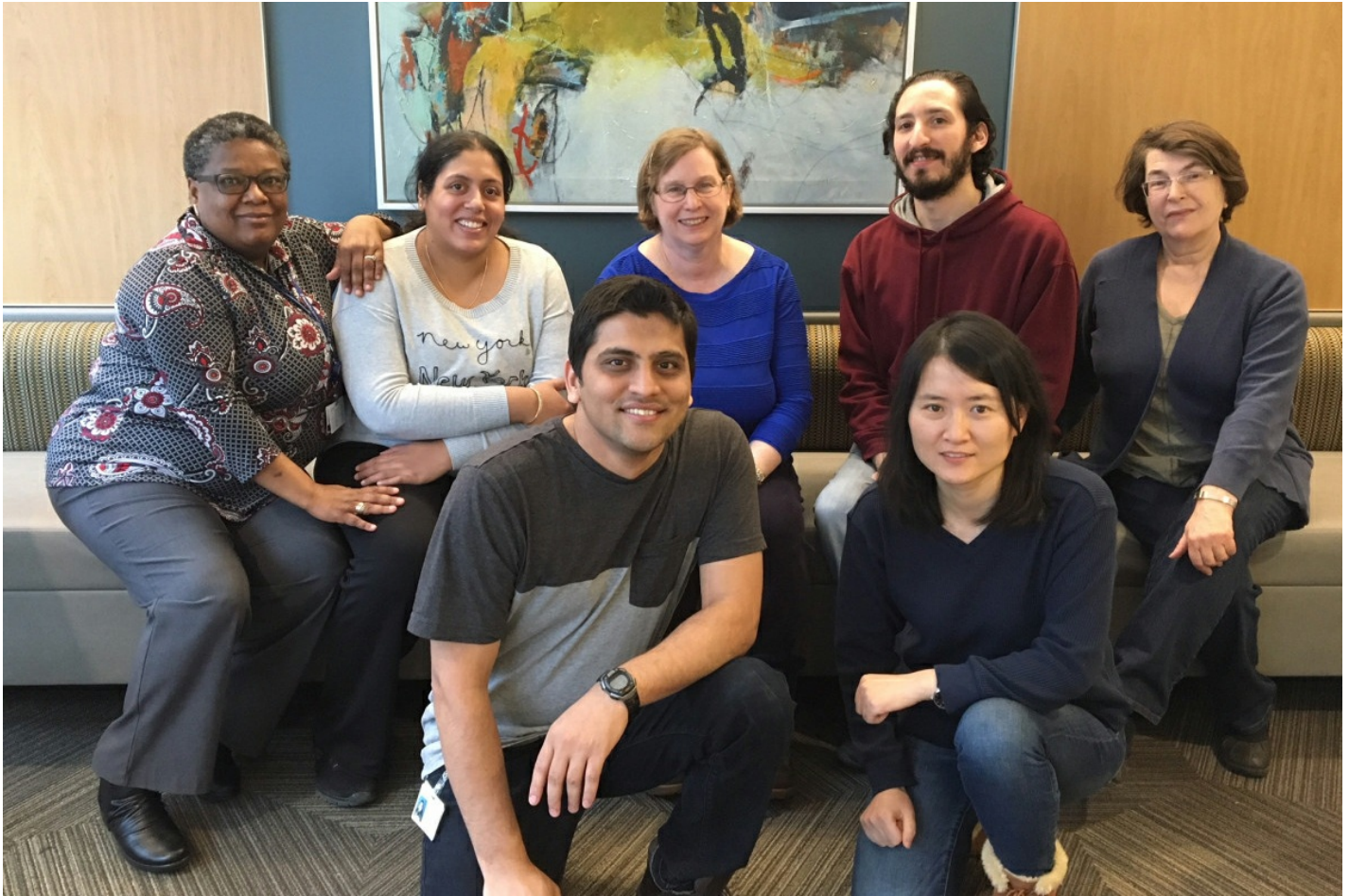
---

The goal of my laboratory's research is to understand how fatty acylation influences the structure and function of membrane-bound and secreted signaling proteins. Our focus is on the Src family tyrosine protein kinases, Hedgehog and Wnt proteins.

[View Lab Overview](https://www.mskcc.org/research/ski/labs/marilyn-resh/overview) (<https://www.mskcc.org/research/ski/labs/marilyn-resh/overview>)

## Research Projects

- [Fatty Acylation of Wnt Proteins by Porcupine](#)
- [Lipid Modification of Hedgehog Proteins](#)
- [Hedgehog Palmitoylation as a Target to Block Pancreatic Cancer](#)



## Publications Highlights

[Petrova E, Rios-Esteves J, Ouerfelli O, Glickman JF, Resh MD. Inhibitors of Hedgehog acyltransferase block Sonic Hedgehog signaling. Nat Chem Biol. 2013 Apr;9\(4\):247-9. doi: 10.1038/nchembio.1184. Epub 2013 Feb 17.](#)

---

[Resh MD. Targeting protein lipidation in disease. Trends Mol Med. 2012 Apr;18\(4\):206-14. doi: 10.1016/j.molmed.2012.01.007. Epub 2012 Feb 17.](#)

---

[Buglino JA, Resh MD. Hhat is a palmitoylacyltransferase with specificity for N-palmitoylation of Sonic Hedgehog. J Biol Chem. 2008 Aug 8;283\(32\):22076-88. doi:](#)

[10.1074/jbc.M803901200](https://doi.org/10.1074/jbc.M803901200). Epub 2008 Jun 4.

---

[Resh MD. Palmitoylation of ligands, receptors, and intracellular signaling molecules. Sci STKE. 2006 Oct 31;2006\(359\):re14.](#)

---

[Resh MD. Trafficking and signaling by fatty-acylated and prenylated proteins. Nat Chem Biol. 2006 Nov;2\(11\):584-90.](#)

[View All Publications](#)

## People

## Marilyn Resh, PhD

Member

- Cell biologist Marilyn Resh investigates the regulation of protein function by fatty acylation, and the development of Hedgehog palmitoylation inhibitors to block pancreatic and lung cancer.
- PhD, Harvard University
- AB, Princeton University

✉ [m-resh@ski.mskcc.org](mailto:m-resh@ski.mskcc.org)

Email Address

☎ [212-639-2514](tel:212-639-2514)

Office Phone

## Members

Lab  
Alumni



Debra Alston  
Sr. Administrative Assistant



James Ascioffa  
Graduate Student

Lab Affiliations

## Achievements

- Excellence in Teaching and Mentoring Award, Weill Cornell

Graduate School (2009)

- Established Scientist, American Heart Association (1994-1999)



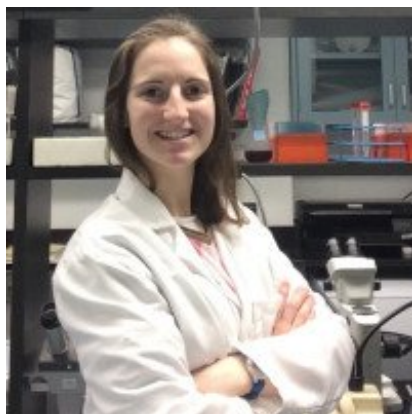


Atul Khire, Ph.D.  
Postdoctoral Fellow



Kalpana Rajanala  
Research Fellow

- Pew Scholar in the Biomedical Sciences, Pew Charitable Trusts (1987-1991)
- Discovery of the "two-signal hypothesis" for binding of myristoylated proteins to membranes
- Discovery of a myristoyl switch mechanism for membrane binding of HIV-1 Gag



Adina R. Schonbrun  
Associate Manager, Research Program Management, Regeneron Pharmaceuticals



Jing Zhou, Ph.D.  
Postdoctoral Fellow

## 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](#)



Raisa Louft-Nisenbaum  
Research Technician

## Get in Touch

✉ [m-resh@ski.mskcc.org](mailto:m-resh@ski.mskcc.org)

Lab Head Email

☎ [212-639-2514](tel:212-639-2514)

Office Phone

☎ [212-717-3317](tel:212-717-3317)

Office Fax

☎ [212-639-2551 / 2552](tel:212-639-2551)

Lab Phone

☎ [212-717-3317](tel:212-717-3317)

Lab Fax



© 2026 Memorial Sloan Kettering Cancer Center

Marilyn Resh  
Member