CELL BIOLOGY PROGRAM

The Marilyn Resh Lab

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 →

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. 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.

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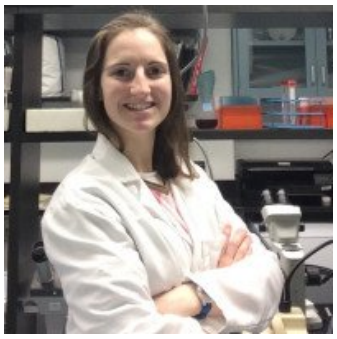

Adina R. Schonbrun

Scientific Editor, Periodt Scientific Communications/Plant Editions - Freelance

Jing Zhou, Ph.D.

Postdoctoral Fellow

Raisa Louft-Nisenbaum

Research Technician

Marilyn Resh

Member

Lab Alumni
+

Lab Affiliations
+

Achievements

- Excellence in Teaching and Mentoring Award, Weill Cornell Graduate School (2009)
- Established Scientist, American Heart Association (1994-1999)
- 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

Read more
+

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About Us

Overview

Leadership

Administration

History

Contact Us

Research

Overview

Research programs

Research labs

Core facilities & resources

Education & Training

Overview

Postdoctoral training

Gerstner Sloan Kettering Graduate School

Joint graduate programs

Programs for college & high school students

News & Events

Overview

Seminars & events

Open Positions

Overview

Faculty positions

Postdoctoral positions

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