

# Paul Soloway

## Web Bio

### Information

#### Biography

##### Biographical Statement

Formal education includes a BA 1979 from Cornell University in Biology and a PhD 1989 from Princeton University in Molecular Biology. Post doctoral training was at MIT and the Whitehead Institute from 1998-1994. Independent positions as a Principal Investigator were at Roswell Park Cancer Institute from 1994-2002 and at Cornell University from 2002 to the present. Area of expertise is mouse molecular genetics, mechanisms controlling placement of epigenetic modifications including DNA and histone methylation in the mouse genome and technology development for genome wide single molecule epigenetic profiling.

#### Teaching

##### Teaching and Advising Statement

It is an honor and a privilege to be teacher and advisor to the enthusiastic, creative and intelligent minds who come to Cornell for study. I strive to serve their educational goals with the commitment I would extend to my own children. Each student has their own unique needs, and I tailor my approach to meet them. I bring this philosophy into my classroom, my research lab, and when I meet individually with students, not just for their benefit, but for my own as well. When I execute my responsibilities guided by this philosophy, I feel like the teacher, advisor, scientist and human I wish to be.

#### Professional

##### Current Professional Activities

**Research: 50%**

**Teaching: 50%**

#### Research

##### Current Research Activities

Current research activities are in the area of epigenetics and includes several separate sets of projects. One of these seeks to characterize the mechanisms regulating the epigenetic phenomena of DNA and histone methylation in mice using the *Rasgrfl* gene as a model. These methylation events are potent regulators of gene expression and respond to environmental variables, including nutrition, in ways that are stable and inheritable. A second set of projects seeks to develop next generation methods for single molecule profiling of multiple epigenetic states, simultaneously and genome wide. A third project has characterized epigenetic mechanisms controlling poly A site usage in mammalian cells. A fourth and new project is a collaboration with Prof. Barbara Strupp to characterize epigenomic mechanisms by which maternal choline supplementation leads to improved cognitive outcomes in the progeny. Recent advances in epigenomic methods make this project tractable.

#### Extension

#### Education

##### Education

Post-doc 1994 - Whitehead Institute / MIT, Molecular Genetics - Advisor, R. Jaenisch

Ph.D. 1989 - Princeton University, Molecular Genetics - Advisor, T. Shenk

BA 1979 - Cornell University, Biochemistry

## **Courses**

### **Courses Taught**

NS 4900 - Manipulating the Mouse Genome

NS 6080 - Epigenetics

## **Websites**

### **Related Websites**

Lab Site: <http://www.human.cornell.edu/dns/soloway/index.cfm>

## **Administration**

### **Administrative Responsibilities**

Co-Chair, University Hearing Board

## **Publications**

### **Selected Publications**

a) The following URL provides a full list of my published work:

[http://www.ncbi.nlm.nih.gov/pubmed?term=Soloway%20PD%20\[Author\]%20OR%20Soloway%20P%20\[Author](http://www.ncbi.nlm.nih.gov/pubmed?term=Soloway%20PD%20[Author]%20OR%20Soloway%20P%20[Author)