

# Investigator Spotlight: Gail Mandel, PhD, Howard Hughes Medical Institute, Vollum Institute, Oregon Health and Science University

IRSF is pleased to highlight Dr. Gail Mandel in this month's Investigator Spotlight. Dr. Mandel recently co-chaired the Basic Research Symposium at the 7th World Rett Syndrome Congress last June alongside Dr. Huda Zoghbi. IRSF is thankful to Drs. Mandel and Zoghbi for putting together an excellent program that will help "Chart the Course" for Rett syndrome research.

Dr. Gail Mandel is a Howard Hughes Medical Institute (HHMI) Investigator, a Senior Scientist at the Vollum Institute, and a Professor in the Department of Biochemistry and Molecular Biology in the School of Medicine at Oregon Health and Science University (OHSU). She received her Ph.D. in Immunology from the University of California, Los Angeles (UCLA) and pursued postdoctoral training at UCLA and the University of California, San Diego. Prior to her position at OHSU, Dr. Mandel had been a faculty member at Harvard Medical School, Tufts University, and Stony Brook University. In addition to receiving numerous awards throughout her scientific career, Dr. Mandel is a member of the National Academy of Sciences.



Dr. Mandel's laboratory is focused on understanding how cells of the nervous system are established and maintained. They have discovered that this is achieved by molecular mechanisms that include the DNA-binding protein REST, which is central to the regulation of gene expression in the developing nervous system. The Mandel lab has more recently uncovered a role for glial cells in neuronal dysfunction seen in Rett syndrome. They have extended their studies to explore the cell-to-cell interactions between neurons and glial cells and how the glial genes or proteins cause the underlying neuronal pathology.

Dr. Gail Mandel is a member of the IRSF Scientific Advisory Board that serves to help set strategic goals for the advancement of research towards the development of therapeutics for Rett syndrome.

## **What prompted you to begin a career in research?**

Curiosity about how things work in nature.

## **What is the single most rewarding aspect of conducting Rett syndrome research?**

I like to address fundamental questions in biology that may someday have relevance to human disease. I also like to work within a community of scientists whom are passionate about research and set the bar very high. Research in RTT fulfills both of these goals.

## **What other disease(s) does your research focus on?**

With my scientist husband, Paul Brehm, we study zebrafish models of neuromuscular disease and fundamental questions related to how neurons communicate with each and with other cell types.

For more information on Dr. Mandel, please visit:

[www.ohsu.edu/xd/research/centers-institutes/vollum/faculty/faculty-profile](http://www.ohsu.edu/xd/research/centers-institutes/vollum/faculty/faculty-profile)  
[www.hhmi.org/research/investigators/mandel\\_bio](http://www.hhmi.org/research/investigators/mandel_bio)

For a list of Dr. Mandel's publications, please visit:

[www.ncbi.nlm.nih.gov/sites](http://www.ncbi.nlm.nih.gov/sites)