



CSHL in the News

- Long Island Press**  
[President Stillman on Power List](#)  
June 15, 2011
- Nature.com**  
[Autism linked to hundreds of spontaneous genetic mutations](#)  
June 9, 2011
- CBS News**  
[Complexity of autism keeps treatment elusive](#)  
June 9, 2011
- The Washington Post**  
[Scientists find new genetic clues to autism](#)  
June 8, 2011
- Los Angeles Times**  
[Gene mutations could cause autism in boys, another disorder in girls, researchers suggest](#)  
June 8, 2011
- Scientific American**  
[Autism's Tangled Genetics Full of Rare and Varied Mutations](#)  
June 8, 2011

Autism study confirms 'unified' theory and provides insight into gender skew

By performing a robust study of 1000 families with one autistic child and one unaffected sibling, Professor Michael Wigler and his colleagues have validated a controversial theory of autism genetics that they first proposed in 2007. Their new study confirms that rare, spontaneously arising (not inherited from parents) mutations are a major cause of autism spectrum disorders (ASD).



CSHL researchers have identified networks of genes affected by rare spontaneous mutations in autism.

Published in *Neuron* on June 8, the study estimates that there are up to 300 locations in the genome where a type of mutation called copy number variation (CNV) can give rise to ASD. This finding underscores the idea that the genetic roots of ASD are very diverse. The work also provides valuable insight into autism's gender bias - the fact that it occurs in four times as many boys as girls. The team has found that it takes much more genetic damage to trigger ASD in girls than in boys, suggesting that girls are somehow comparatively "resistant" to autism.

Prestigious appointment for plant geneticist Rob Martienssen

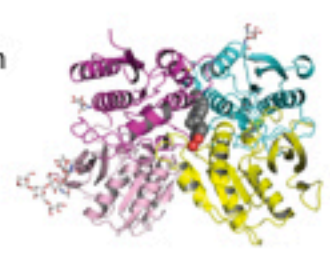


The Howard Hughes Medical Institute (HHMI) and the Gordon and Betty Moore Foundation (GBMF) have named Dr. Rob Martienssen, who leads the plant biology group at CSHL, an HHMI-GBMF Investigator. He and 14 of the nation's leading plant researchers will

share \$75 million in funding over the next five years. Dr. Martienssen, whose interests span epigenetics, plant genetics and genomics, and chromosome biology, will use this support to expand his research in creative new directions.

Structure of NMDA receptors will guide better drug design

When they fail to function properly, ion channels called NMDA receptors found in the brain's excitatory neurons can cause Alzheimer's, Parkinson's, schizophrenia and other neurological and neuropsychiatric diseases. Dr. Hiro Furukawa's group at CSHL is solving the receptors' three-dimensional atomic structure one "subdomain" at a time because of their large size. The team recently unveiled, in *Nature*, an NMDA drug-binding site in one receptor subunit that should help in the design of better therapeutic compounds with minimal side effects.



Upcoming Events

- 7/6/11  
Secret Science Club  
Dr. Partha Mitra: [Mapping the brain](#)
- DNA Learning Center  
Summer Camps  
[Watch video.](#)  
[Register here!](#)
- 7/18/11  
Joni Gladowsky Breast Cancer Foundation  
[Seventh Annual Play for the Cure Golf Outing](#)
- 8/19/11  
Concert: [Margarita Shevchenko and Lev Polyakin](#)
- 9/13/11  
10th Annual Women's Partnership for Science  
[Lecture and Luncheon](#)

Lecture on depression and bipolar disorder now online

If you missed the June 22 public lecture in CSHL's Grace auditorium on "New Approaches to Treatment of Depression and Bipolar Disorder," [watch it online](#). The speakers, Dr. Husseini Manji (Global Head of Neuroscience at Johnson & Johnson Pharmaceutical Research and Development) and Dr. Fritz Henn (Professor at CSHL), are members of the [Brain & Behavior Research Foundation](#) Scientific Council. Dr. Manji also serves as a scientific advisor to "One Mind for Research," an initiative launched in response to former US Congressman Patrick Kennedy's "Moonshot to the brain" campaign.

Also online: [Videos of interviews](#) with leading scientists who spoke at CSHL's 76th Annual Symposium on Quantitative Biology in early June on the topic of "Metabolism and Disease."

Annual report alert!

The Executive Summary of CSHL's 2010 Annual Report is [now online](#). In addition to President Bruce Stillman's essay discussing CSHL's new Cancer Therapeutics Initiative, the report summarizes the highlights of CSHL's latest research efforts in cancer, neuroscience, plant genetics, bioinformatics and genomics, and quantitative biology. Also found within are updates on CSHL's various educational programs.



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Founded in 1890, Cold Spring Harbor Laboratory (CSHL) has shaped contemporary biomedical research and education with programs in cancer, neuroscience, plant biology and quantitative biology. CSHL is ranked number one in the world by Thomson Reuters for impact of its research in molecular biology and genetics. The Laboratory has been home to eight Nobel Prize winners. Today, CSHL's multidisciplinary scientific community is more than 400 scientists strong and its Meetings & Courses program hosts more than 8,000 scientists from around the world each year. Tens of thousands more benefit from the research, reviews, and ideas published in journals and books distributed internationally by CSHL Press. The Laboratory's education arm also includes a graduate school and programs for undergraduates as well as middle and high school students and teachers. CSHL is a private, not-for-profit institution on the north shore of Long Island.