



CSHL in the News

- The Guardian.co.uk**  
[Fighting a contagious cancer](#)  
September 29, 2011
- Newsday**  
[Delving into science for capital ideas](#)  
September 28, 2011
- Long Island Business News**  
[Biomedical research in our backyard](#)  
September 23, 2011
- The Scientist**  
[Next Generation: All-in-one in vivo scope](#)  
September 16, 2011
- Reuters**  
[Analysis: Gene sequencers face govt budget squeeze](#)  
September 12, 2011
- GenomeWeb**  
[CSHL team says single-cell sequencing of prostate cancer could improve diagnosis, guide treatment](#)  
September 7, 2011
- Bloomberg Markets Magazine**  
[Mogul using \\$100 million in race to cure daughter lures Novartis](#)  
September 7, 2011

Upcoming Events

- 10/06/11  
[Pandora "Town Hall" Discussion and Reception](#)
- 10/14/11  
Concert: [Yoonjung Han](#)
- 10/23/11  
Public Lecture: [MUSIC - How It Can Rewire Your Brain](#)
- 11/5/11  
The Don Monti Memorial Research Foundation [Anniversary and Fundraiser](#)
- 11/14 - 11/15  
CSHL's [2011 President's Council Meeting](#)
- 11/15/11  
[The 6th Annual Double Helix Medals Dinner](#)

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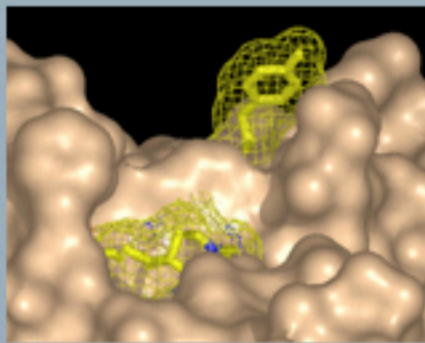
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Founded in 1890, Cold Spring Harbor Laboratory (CSHL) has shaped contemporary biomedical research and education with programs in cancer, neuroscience, plant biology and quantitative biology. CSHL is ranked number one in the world by Thomson Reuters 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 350 scientists strong and its Meetings & Courses program hosts more than 11,000 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.

A new therapeutic approach to treat diabetes and obesity

Prof. **Nicholas Tonks** has long believed that blocking the activity of an enzyme called PTP1B might be the best way of preventing insulin resistance, the hallmark feature of Type 2 diabetes. But PTP1B has proved to be a tough challenge for drug developers to solve. Its active site - the exact spot that needs to be targeted to deactivate the enzyme - is hidden within a deep cleft and has biochemical properties that make it impossible for small molecule inhibitor drugs to successfully travel into the cleft and switch off the enzyme.



Crystal structure of PTP1B active

A team led by Tonks, who discovered PTP1B over two decades ago, has now identified a new targeting approach that sidesteps these issues. Described in a report in *Cell*, the approach offers fresh hope for developing drugs to reverse insulin resistance.

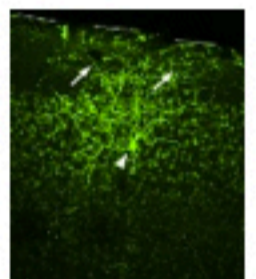
DNA 'bookmarks' might be agents of evolution

The activity of a gene can be altered without changing its DNA sequence by "marking" the DNA with methyl molecules - a process called methylation. By profiling methyl marks throughout the genomes of sperm cells from humans and chimps, and comparing these profiles to those of embryonic stem cells, Professor **Greg Hannon's** group found evidence - published as the [cover story in Cell](#) - that changes in methylation can actually drive changes in DNA sequence over evolutionary time. A [second paper](#) from the Hannon lab shows how changes in methylation can determine a stem cell's fate.



A genetic 'GPS' system to locate and track neurons

A team of neuroscientists led by Professor **Z. Josh Huang** has assembled a [GPS system](#) ("Gene-based Positioning System") that will allow researchers to locate, track and remotely control the activity of GABAergic neurons, which inhibit nerve impulses and are implicated in epilepsy, Parkinson's and other disorders. So critical are these tools to the research community that the Faculty of 1000, a community of scientific experts, gave [Huang's paper](#) top rating and added it to the "must-read" list within only 5 days of its publication in *Neuron*.



Plant geneticist talks superseeds & biofuels at the Secret Science Club

For those who missed CSHL Prof. **Rob Martienssen's** lecture at the Science Secret Club in Brooklyn, NY a few weeks ago, here's your chance to learn about superseeds, superweeds, green energy and a very special plant that might help solve the energy crisis one day. The latest [Lab Dish blog post](#) includes a video of the lecture (including Dr. Martienssen's gorgeous slides!)



Women's Partnership For Science celebrates 10 successful years

More than 150 prominent women from New York society attended the 10th [Women's Partnership For Science luncheon](#) on September 13 to support, promote and celebrate women pursuing research careers at CSHL. This year's featured speaker, Pulitzer Prize winner and New York Times national correspondent **Amy Harmon**, brought the attendees up to speed on the latest in cancer research with her talk titled, "Targeting Cancer: A Dose of Hope."

