### New Staff Notes

**Hiro Furukawa** has always been interested in how signals are transmitted from the outside of a cell to the inside of the cell. This signaling often occurs through neurotransmitters, binding to neurotransmitter receptors within the cell membrane. Hiro's research both as a graduate student in Dr. Tatsuya Haga's laboratory at The University of Tokyo and as a postdoctoral fellow in Dr. Eric Gouaux's laboratory at the Volum Institute at Columbia University focused on understanding how these neurotransmitter receptors work.

Hiro, who joined the faculty of CSHL in December 2006, is interested in the connection between the NMDA receptors and proteins involved in Alzheimer's disease. He is studying a-secretase, which cuts amyloid precursor protein into a plaque-forming β-amyloid fragment found in Alzheimer's patients, and may affect neurotransmission by associating with NMDA receptors. Understanding these interactions may aid in defining targets for developing new drugs to treat Alzheimer's disease.

**Raffaella Sordella** received her Ph.D. from Turin University, Italy, where she worked with Dr. Paolo Comoglio studying the role of growth factor receptors in cancer development. She moved to Massachusetts General Hospital (MGH) Cancer Center for a postdoctoral fellowship in Dr. Jeff Settleman's laboratory. Her initial work resulted in the identification of a role for a protein called p190-B RhO GAP in helping a cell decide whether to differentiate into a fat cell or a muscle cell. In collaboration with Dr. Daniel Haber's laboratory at MGH, she shifted her focus to cancer cell biology, studying the oncogene called epidermal growth factor receptor (EGFR). Raffaella and colleagues found that the drug Iressa® an inhibitor of EGFR, induced a dramatic response in non-small cell lung carcinomas (NSCLC) from patients with particular mutations in EGFR. (See page 6 for more on Sordella's research.)

At CSHL, Raffaella is interested in exploring the molecular mechanism of why particular mutations in EGFR result in cancer cell addiction, and why other EGFR mutations are resistant to Iressa®. She hopes to identify other cellular components that cancer cells become addicted to that potentially can be targeted by cancer therapies.

**Lloyd Trotman**, a New York City native, and one of the four editors of the book, received his Master degree in biochemistry from the University of Zurich, Switzerland, and continued there to earn his Ph.D. in Dr. Urs Greber's laboratory. He identified the mechanism of how certain viruses transfer their DNA into the host cell nucleus. For his postdoctoral fellowship, Lloyd joined Dr. Pier Paolo Pandolfi's laboratory at Memorial Sloan-Kettering Cancer Center, where he studied the role PTEN, a tumor suppressor gene that was originally identified through work done by Mike Wigler at CSHL. Expression of PTEN is frequently lost in many cancers, and it was assumed that complete loss of PTEN was required for cancer progression. However, Lloyd and his colleagues found that removal of only one copy of PTEN was sufficient to induce cancer in a mouse model of prostate cancer and, surprisingly, removing of both copies prevented the growth of cancer cells.

Lloyd joined the CSHL Cancer Center faculty in January 2007 to research the role of PTEN “dosage” in breast and colon cancers. Because complete loss of PTEN was found to prevent tumor growth, one potential outcome from his research is a cancer therapy that halts cancer cell growth by completely removing PTEN in human tumors.

**Glenn Turner** earned his Ph.D. at the California Institute of Technology studying how the small protein ubiquitin tagged proteins for degradation. He was fascinated by conversations with his neuroscientist classmates about how complex behavior could be encoded by the activity of neurons in the brain. This led Glenn to do postdoctoral research in Dr. Gilles Laurent's laboratory at Caltech, focusing on how odors are encoded by the activity of neurons in the brain. Glenn developed a method to measure the activity of neurons in the fruit fly brain and found that olfactory information is represented in an area of the fruit fly brain called the mushroom body, essential for learning and memory.

Glenn joined the CSHL faculty in the winter of 2006 to study the association between smell and taste. He is using the fruit fly's association between a given odor and a bitter taste, along with the electrophysiology techniques he developed at Caltech, and the powerful ability to manipulate genes in the fruit fly using molecular genetics.

### Book Review

**Title**: *Crazy: A Father's Search through America's Mental Health Madness*  
**By**: PETE EARLEY  
**Publisher**: PUTNAM ADULT, 2006  
**Pages**: 384 pages, $25.95 (hardcover, ISBN 0-399-15313-6)

**From Author to Advocate**

- Call it America's dirty little secret, more mentally ill are housed in the prison system than in psychiatric hospitals. It is simply a national disgrace. Pete Earley, in his ambitious book, *Crazy*, not only exposes this merging of the mental health and prison systems, but he also chronicles his son's arrest for a crime during a psychotic break. One part journalistic expose and one part memoir, Earley simply accomplishes so much. But most importantly, the reader gains insight into why our nation's mentally ill are in crisis.

- Deinstitutionalization is partially to blame. Between 1960 and 1980 the doors of mental hospitals flung wide open and over 400,000 chronically mentally ill patients took to the streets, ill-equipped for their new life of freedom. Within a decade, the prison system was bustling at its seams with the influx of these new “prisoners.” In 2006, the U.S. Department of Justice reported that over half of prisoners suffer from a mental illness. Not surprisingly, prisons are completely incapable of meeting the needs of these prisoners with special needs. In fact, Earley argues that mentally ill prisoners are more discriminated against than other prisoners; they spend six times longer in jail even when charged with the identical crime.

- Earley interviews prison guards, nurses, psychiatrists, prisoners, and leaders of grass-roots organizations. Through their words, it is made clear that the prison system as it exists today is unable to do anything but “dehumanize and humiliate a person.” Consequently, the mentally ill further decompensate emotionally making their search for freedom (even both their illness and prison) even more elusive. Halfway through *Crazy*, the reader cannot but feel paralyzed by the injustice and immorality of it all. Fortunately, the author is able to offer some models of hope.

- One such model is a program called Crisis Intervention Team (CIT) which began in the Memphis Police Department after police had needlessly killed a man with an extensive psychiatric history. Since adopted by other cities, the goal of CIT is to provide additional training to police officers so that they can appropriately recognize and compassionately handle individuals experiencing a mental health crisis. CIT teaches police to view mentally ill suspects as ill and not evil. This simple shift in attitude has produced unbelievable results. Within 24-hours of the program's institution in Memphis, CIT officers prevented a suicide. By the end of the first year, CIT had transported 1,533 people to local mental health facilities instead of jail. Furthermore, not one suspect had been killed.

- There are hundreds of amazing books that humanize the mentally ill, but few books are able to also incorporate such a strong political message. By presenting CIT and other programs, Earley transforms himself from an author to an advocate. *Crazy* is not just a book; it is a plan of action for our nation's mental health professionals and governmental leaders. It should be required reading for anyone touched by someone with mental illness. Andrea M. Macari

*Dr. Macari is a clinical psychologist and Instructor at Suffolk County Community College. She has a private practice in Great Neck, New York.*

> **Excerpt**

« By the time he had finished his rounds, Dr. Poitier had either spoken with or visibly observed all of the ninety-two inmates on the ninth floor. I checked my watch. His rounds had taken nineteen and a half minutes to complete. That was an average of 12.7 seconds per inmate."