

# BC UNDERGRADUATE NEUROSCIENCE EXPRESS



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## Welcome Back:

Welcome back to Brooklyn College -- we hope you enjoyed the summer months. We are pleased to present a new edition of the BC Undergraduate Neuroscience Express. This newsletter is intended to keep you updated about BC Neuroscience Interest Group meetings, events and learning opportunities, new developments in our education and research programs, and related neuroscience information. We hope that in this way you will continue to be involved and informed. This issue contains an overview of upcoming events, links to community activities, synopses of exciting neuroscience developments, and more. Enjoy the newsletter! We welcome any feedback and look forward to seeing you at upcoming events. To learn more visit:

<http://depthome.brooklyn.cuny.edu/psych/NeurosciTrackBrochure032907.pdf>

[http://depthome.brooklyn.cuny.edu/psych/BC\\_Undergrad\\_Neurosci032907.pdf](http://depthome.brooklyn.cuny.edu/psych/BC_Undergrad_Neurosci032907.pdf)

## REKNOWNED NEUROSCIENTIST DR. ERIC KANDEL ADDRESSES BROOKLYN AUDIENCE

On June 20th, BC students and faculty had the opportunity to hear Dr. Eric Kandel deliver a talk at The Secret Science Club, a free science lecture and arts series that meets regularly in the basement of Union Hall in Park Slope, Brooklyn. Professor at Columbia University, senior investigator at the Howard Hughes Medical Institute, and the author of *"In Search of Memory: The Emergence of a New Science of Mind,"* Dr. Eric

Kandel received his Nobel Prize in 2000 for helping to "crack open the secrets of the neuron" and radically improving our understanding of the brain. Natasha Nadler, a BC graduate student who attended the talk stated: "I felt honored to hear Eric Kandel, a Nobel Prize winner, speak, but I did not

expect him to be so engaging and entertaining. He filled his talk with personal stories going into some detail about how his life in Vienna during World War II sparked his interest in long term memory and how it affects an individual. He spoke of his research studying hippocampal neurons and how he 'down-shifted' to the more simple nervous system of aplasia and later returned to the hippocampus. He spoke of his memory storage research and of his journey of discovery – both the successes and pitfalls. Importantly, he spoke in a manner which conveyed a love and

an admiration for the scientific process. His talk was inspiring and the bar was filled to capacity; even still, people waited outside in hopes of being let in."

### Shown Here:

Dr. Eric Kandel  
speaking at *The Secret  
Science Club* in Park  
Slope, Brooklyn, on  
June 20, 2007.

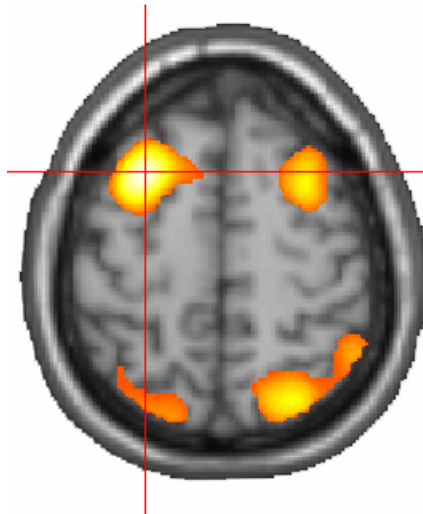


To learn more about Dr. Kandel, visit:

[http://nobelprize.org/nobel\\_prizes/medicine/laureates/2000/kandel-autobio.html](http://nobelprize.org/nobel_prizes/medicine/laureates/2000/kandel-autobio.html)

For a listing of lectures at The Secret Science Club, visit:

<http://secretscienceclub.blogspot.com/>



## NEUROSCIENCE IN THE NEWS

**"Winners Never Quit" -- by BC student**

**Bracha Goykadosh**

From childhood, many people are told not to quit. Quitters, after all, never win. What about when a person cannot quit? When the stakes are high and the funds are low, what motivates a pathological gambler to keep playing? Pathological gambling is associated with "loss-chasing" – or continued gambling to recover losses.

In a recent neuroimaging study published in *Biological Psychiatry*, researchers at the University of Oxford led by Dr. Campbell-Meiklejohn used functional magnetic resonance imaging (fMRI) to examine brain activity in a group of young, healthy adults during a gambling task. Participants completed questionnaires and were given a certain amount of fictional money with which to gamble. They were asked to choose between gambling to recover a loss (at the risk of doubling its size) or quitting (sustaining a certain loss and preventing further losses).

Results showed that loss chasing behavior was associated with increased activity in cortical brain areas linked to incentive-motivation and an expectation of reward (ventromedial prefrontal cortex, and subgenual cingulate cortex). Quitting, on the other hand, was related to decreased activity in these areas but increased activity in areas associated with anxiety and conflict monitoring. Also, activity within the anterior cingulate cortex associated with the experience of chasing and then losing predicted decisions to stop chasing losses at the next opportunity.



According to the authors, the gambler "sees himself getting deeper and deeper: yet if he quits now, all this is irretrievably lost. The only way to get it back is to keep playing..." So the childhood axiom was not neurologically incorrect-- because to win, you have to keep playing!

For more details see: Campbell-Meiklejohn, D., Woolrich, M.W., Passingham, R.E., & Rogers, R.D. (2007). *Knowing when to stop: The brain's mechanism of chasing losses. Biological Psychiatry*, in press.

## \* FALL 2007 SPEAKER \*

**Dr. Robert Rinaldi, CUNY Queens College**

**Neurobiology of Reward-Related  
Associative Learning**

**Room 5109 James Hall**

**Tuesday December 4<sup>th</sup> at 1:30PM**

**PLEASE PLAN TO ATTEND!**

## NEUROSCIENCE JOURNALS OF INTEREST

(1) <http://www.neuroguide.com/neurojour.html>

(2) <http://thalamus.wustl.edu/journals.html>

Our favorites include: *Neuron*, *Brain*, *Nature Neuroscience*, *Biological Psychiatry*, *Human Brain Mapping*, and the *Journal of Cognitive Neuroscience*

## OTHER WEBSITES OF INTEREST

(1) New York Academy of Sciences

<http://www.nyas.org>

(2) Neuroanatomy & Neuropathology on the Internet:

<http://www.neuropat.dote.hu/anatomy.htm>

(3) Society for Neuroscience:

<http://www.sfn.org/>

(4) International Neuropsychological Society:

<http://www.the-ins.org/>

(5) National Institutes of Health:

<http://www.nih.gov/>

## LOCAL COLLOQUIA

**(Be sure to check for any scheduling changes)**

(1) BC Psychology Department Colloquia:

<http://depthome.brooklyn.cuny.edu/psych/events.htm>

**\*\* October 4 \*\* Dr. Renee Fabus, 1:30PM 5117 James**

(2) BC invited Carol Zicklin lecture series:

**Dr. Marc Hauser of Harvard University will present a talk entitled: "The Evolution of a Universal Moral Grammar" on November 12 at 1:30PM -- Student Center, Bedford Lounge**

(3) Queens College Psychology Department Colloquia

<http://qcpages.qc.cuny.edu/Psychology/activities/colloquium.html>

(4) NYU Neuroscience Colloquia:

<http://www.cns.nyu.edu/colloquia/>

(5) Columbia University Neuroscience Seminars

<http://neuroscience.columbia.edu/index.php?page=12>

## \*\* ANNOUNCEMENT \*\*

Drs. Rabin & Walder will hold a Neuroscience Interest Group Office Hour on **Tuesday, October 9 at 12:30 – 1:30 pm 5303 James**. Please attend & bring questions!

## TO CONTACT US

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