



# BC UNDERGRADUATE NEUROSCIENCE EXPRESS



Volume 4 Issue 1

Fall 2009

A Publication of the Brooklyn College Psychology Department

Welcome back to Brooklyn College this Fall 2009. We hope your semester got off to a wonderful start and that you are enjoying the rich academic opportunities and new recreational facilities on our campus. We hope this latest edition of the BC Undergraduate Neuroscience Express brings new and exciting information to you. This newsletter is intended to update you about BC Neuroscience Interest Group meetings, developments in our education and research programs, and related information locally and in the broader neuroscience community. This issue spotlights a new Interdisciplinary Neuroscience faculty member at BC, contains an overview of upcoming events and synopses of neuroscience developments, and provides links to community activities, conferences, and summer research opportunities. Enjoy the newsletter! We look forward to seeing you at our upcoming events.

## MEET DR. PAUL FORLANO

### BC's Newest Interdisciplinary Neuroscience Faculty Member

Paul Forlano comes to BC after completing postdoctoral fellowships in Neuroendocrinology at the Vollum Institute, Oregon Health and Science University, and in Cellular Neuroscience at Northwestern University. Dr. Forlano is originally from the greater Philadelphia area. He received his bachelor of science in Biology from Ursinus College and then earned his masters degree in Biological Science/Marine Biology at Florida Institute of Technology, and his doctorate in Neurobiology and Behavior at Cornell University.



Professor Forlano embraces a neuroethological approach to science; that is, studying the nervous system in the context of an animal's natural behavior. His research involves using fish as model systems, employing a combination of evolutionary/systems neuroscience with a

molecular and cellular approach in order to identify the mechanisms underlying steroid-induced neural plasticity and sex differences in brain and behavior.

His long-term research interests involve investigating the acute and long-term effects of steroid hormones on the structure and function of circuits (vocal-acoustic and neuroendocrine) underlying reproductive-related behaviors. He is also interested in the role of neuroestrogen in development of sex differences in the brain and the subsequent expression of inter- and intra- sexual variation in behavioral phenotypes in fishes.

Dr. Forlano's multidisciplinary studies include behavioral experiments in the field and laboratory, neuroanatomic techniques, immuno-cytochemistry and *in situ* hybridization, imaging techniques, and molecular techniques such as gene cloning. He is an investigator at the Aquatic Research and Environmental Assessment Center (AREAC).

Dr. Forlano, with co-authors Marchaterre, Deitcher and Bass, has a forthcoming paper in the Journal of Comparative Neurology titled, *Neuroanatomical distribution of androgen receptor mRNA in vocal, auditory*

## FALL 2009 FEATURED SPEAKER

Dr. Paul Forlano

*Fish as Model Systems for Steroidal Influences on  
Brain and Behavior*

Tuesday, November 3<sup>rd</sup> at 12:30PM

ROOM 5117 JAMES HALL

PLEASE PLAN TO ATTEND!

Professors Walder, Kacinik & Grasso will be available to answer questions about the neuroscience curriculum after the talk.

*and neuroendocrine circuits in a teleost fish.*

At BC, Dr. Forlano is currently teaching Comparative Physiology. He plans to develop courses such as Introductory Neurobiology and Hormones and Behavior. He relishes the opportunity to inspire beginning scientists by conveying his enthusiasm for these fields of study and is excited about mentoring students in how to design and answer unique questions in behavioral neuroendocrinology.

Professor Forlano finds his position at BC a wonderful opportunity to investigate the neural basis of natural behavior of marine fishes. He is glad to have joined the BC neuroscience and broader CUNY communities.



## NEUROSCIENCE IN THE NEWS



[http://www.sciencedaily.com/news/mind\\_brain/neuroscience/](http://www.sciencedaily.com/news/mind_brain/neuroscience/)

### Molecular Mechanism for Neuronal Migration Identified - Implications for Disorders

Researchers at Yale University, led by renowned scientist Pasko Rakic, have identified a molecular mechanism that controls intermixing of neurons during neuronal migration, contributing to normal cortical development. Disruptions in such intermixing of neuronal types may contribute to neuropsychiatric disorders. These basic processes, early in the development of the individual brain, have wide-ranging impacts for the performance of the adult brain – including profound psychiatric disorders. The original article can be found in the advance online publication (16 September 2009) of the journal *Nature*. **Read the article:** <http://www.sciencedaily.com/releases/2009/09/090916133519.htm>



### ★ BC Department of Psychology ★ Fall 2009 Colloquia Series

**Wednesdays, 4-6PM, Rm 5117 James**

*This is a unique opportunity for members of  
UNG to learn from professional neuroscientists.  
We welcome your active participation!*

- 9/9: **Gabriella Brick Larkin, Ph.D.**, Army Research Lab  
*Bench to Battlefield: Translating research to system design*
- 10/7: **Michael Siller, Ph.D.**, Hunter College - CUNY  
*How Children and Parents Collaborate to Negotiate  
Meaning: Studies on language acquisition in autism*
- 10/14: **Debra Zellner, Ph.D.**, Montclair State University  
*Contextual Influences on Liking and Preference*
- 10/28: **Jesse Prinz, Ph.D.**, The Graduate Center - CUNY  
*Perceptual Grounding, Embodied Moral Cognition*
- 11/4: **Gregory Murphy, Ph.D.**, New York University  
*Cognitive Psychology, Concepts, Categorization*
- 11/11: **Jennifer Mangels, Ph.D.**, Baruch College – CUNY  
*Knowledge-Seeking: A social cognitive neuroscience  
approach to epistemic curiosity*
- 12/2: **Rick Cheung, Doctoral Student**, Brooklyn College  
*Political Magnetism in Social Tuning: Polarity shifts in  
liberalism and conservatism after the election of Obama*
- 12/9: **Claudia Brumbaugh, Ph.D.**, Queens College – CUNY  
*Social Psychology, Attachment, Relationships, Attraction*
- 12/16: **David Amodio, Ph.D.**, New York University  
*Social Neuroscience, Neural Mechanisms of Social  
Cognition, Emotion, Regulation of Behavior*

### UPCOMING NATIONAL CONFERENCES Society for Neuroscience

Oct 17-21 in Chicago, IL (<http://www.sfn.org/am2009/>)

**International Neuropsychological Society**

Feb 3-6 in Acapulco, Mexico (<http://the-ins.org/12934.cfm>)

\* **Eastern Psychological Association** \*

March 4-7 in **Brooklyn, NY**

(<http://www.easternpsychological.org/i4a/pages/index.cfm?pageid=1>)

**Cognitive Neuroscience Society Meeting**

April 17-20 in Montreal, Canada (<http://cogneurosociety.org/>)

### GRADUATE TRAINING DIRECTORY

<http://www.andp.org/programs/gradgeo.htm>

### BC NEUROSCIENCE BROCHURE & CURRICULUM

<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)

## STEM EDUCATION & RESEARCH TRAINING OPPORTUNITIES AT BC

### Minority Access to Research Careers (MARC)

<http://depthome.brooklyn.cuny.edu/bcsec/marc/>

### Research Initiative for Scientific Enhancement (RISE)

<http://rise.brooklyn.cuny.edu/index.html>

These programs are intended to 1) support good students with an interest in continuing on to graduate study in fields related to biomedical research and 2) involve under-represented minority students in scientific research.



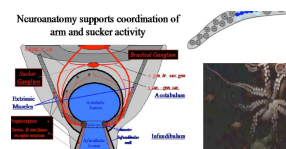
### ✳ Feature Student-Faculty Mentor Collaboration ✳

#### Presentation at the Molluscan Neuroscience Conference 2009 in Puerto Rico

**Student STAVROS HADJISOLOMOU**

#### Studies Octopus Sucker and Arm Coordination

BC Psychology Major Stavros Hadjisolomou, together with Dr. Grasso, found patterns of octopus sucker to sucker coordination that varied according to movement. The findings demonstrated that arm-independent sucker movement is also coordinated along the arm. Stavros received full funding for accommodations to present this study at the conference. He reflected on “great



oral presentations by molluscan experts” and appreciated that he “had the chance to meet and present to distinguished researchers in the field,” from whom he “received valuable feedback.” (See Figure; adapted from Poster presentation.)

*“It was a great experience to be part of this meeting. I'm looking forward to future meetings in Molluscan research and in general neuroscience.”*

### SUMMER RESEARCH OPPORTUNITIES

It's not too early to begin planning for Summer 2010. See the Psychology Department website for links to summer research programs. Many deadlines are fast approaching!

(<http://www.brooklyn.cuny.edu/pub/departments/psychology/1540.htm>)

### ✳ Feature Summer Program in Neuroscience ✳ MIT Summer Research Program (MSRP)

<http://web.mit.edu/odge/admissions/summer.html>

#### SONIA AFROZ, a BC Biology Major, lauds the program:

“MSRP is a must experience for anyone planning on applying to graduate school. The 9-week program is intensively research-oriented with weekly scientific seminars and dinner conferences, at which everything you can possibly need to know to succeed in graduate school is discussed; the application process, financial aid, the advisor-advisee relationship, and GREs. Students write a research paper and present their work in a poster session for MIT faculty. The program includes trips to Martha's Vineyard and a boat cruise, which help minimize stress. Close-knit friendships are formed with peers across fields, labs, and at conferences. By the end, you feel like you have genuinely contributed novel research to the scientific community. For 9 weeks, you get a taste of what it feels like to be in graduate school:

*An absolutely awesome experience!”*

**NEW BC PSYCHOLOGY DEPARTMENT  
NEUROSCIENCE WEBSITE - COMING SOON!**

### UNDERGRADUATE NEUROSCIENCE GROUP (UNG) MENTORS ON CAMPUS

Professors Abramov, Basil, Delamater, Forlano, Grasso, Kacinik, Kurylo, Rabin, Sclafani & Walder.

### CONTACT US

Professor Deborah Walder:

[DWalder@brooklyn.cuny.edu](mailto:DWalder@brooklyn.cuny.edu)

Professor Natalie Kacinik:

[NKacinik@brooklyn.cuny.edu](mailto:NKacinik@brooklyn.cuny.edu)

Professor Frank Grasso:

[FGrasso@brooklyn.cuny.edu](mailto:FGrasso@brooklyn.cuny.edu)