FROM THE EDITOR

It has been a key year for the Oberlin College Neuroscience Department, and in the following pages you will find descriptions of some of the many activities that have been highlights of the year.

It feels like the end of an era with the retirement of Dennison Smith in December 2008. Denny was a founder of the neuroscience program and has been instrumental in developing it into a program that has gained national recognition.

We are proud that Robert Wurtz ’58, a highly regarded neuroscientist, will be awarded an honorary degree at Commencement this year.

Over the last year, numerous wonderful alumni returned to give seminars on their research. These included Bruce McEwen (Rockefeller University), Charles Snowdon (University of Wisconsin-Madison), Chris Moore (Massachusetts Institute of Technology), Wilma Friedman (Rutgers University), and Jason Frazier (University of Florida).

The majors were active this past year. They held a potluck in November, had a neuroscience film night, and designed and silkscreened a departmental t-shirt.

We welcome a new faculty member to the department—Tracie Paine.

—Jan Thornton

Thanks to Scott Swenson ’85 for suggesting the name NeuroNews.

Congratulations to our 2009 Graduating Senior Majors!!

We warmly congratulate Neuroscience graduating seniors and their families. We wish you the best of luck in all your future endeavors.

Please keep in touch!

DECEMBER 2008 and MAY 2009 GRADUATES

Paul Alexandridis  
Oheneba Amponsah  
Leah Bakst  
Tiffany Beason  
Sarah Cassella  
Ben Foster  
Jo Ling Goh  
Brandon Grossman  
David Kapp  
Silas Mann  
Grant Martin  
Elisabeth McClear

Ben Meyers  
Alexandra Michel  
Doug Pace  
Alex Roseman  
Josh Schonborn  
Kirsten Selert  
Ardon Shorr  
Reva Stidd  
Bryne Ulmschneider  
Olivia Winter  
Elizabeth YoheMoore  
Isaac Youngstrom

Dennison Smith Retires from the Oberlin College Neuroscience Department

Dennison Smith, the Norman D. Henderson Professor of Neuroscience and Psychology, retired in December 2008. Denny joined the Oberlin College faculty in 1969. All of the Neuroscience faculty members attended the end of Denny’s last lecture in NSCI 204 Human Neurobiology to give him a standing ovation for all his incredible teaching over the many years of his career.

(See related story and photos on page 3)
NEUROSCIENCE FACULTY AND STAFF ACTIVITIES

Catherine McCormick is Professor of Biology and Neuroscience and is currently chair of the Neuroscience Department. She has been teaching at Oberlin College since 1986 and does research on the evolution of the auditory system. During the past year she taught a new 300-level course on animal behavior and did research with four Neuroscience majors.

Lynne Bianchi, Associate Professor of Neuroscience, began teaching at Oberlin College in 1998. She became an Associate Dean of the College of Arts and Sciences in July 2007 and plans to be in the Dean’s office for another couple of years. She is not currently teaching, but continues collaborations investigating the role of cytokines in auditory nerve development and has a chapter in the forthcoming Oxford Handbook of Auditory Science.

Mark Braford Jr., Professor of Biology and Neuroscience, has been at Oberlin since 1986. In 2008-2009 he taught a first-year seminar (The Brain Is Wider Than the Sky), the introductory neuroscience course and neuroanatomy and lab. He also coordinated Neuroscience Department seminars that included a series of lectures entitled “Neuroscience Across the Curriculum” in honor of Denny Smith. He also organized the dinner and symposium (with the help of Casey Ross) for Denny Smith’s retirement. He gave an invited talk at the 20th Annual Karger Workshop (satellite meeting of the Society for Neuroscience at Oberlin in London program in fall 2009).

Katherine Caldwell was a Visiting Assistant Professor of Neuroscience during the 2008/2009 academic year, and will return for the next academic year. She taught in The Brain: an Introduction to Neuroscience; in the Neuroscience Laboratory classes; Neuropharmacology; and a Senior Seminar. Her research interests are related to the serotonin 5-HT2C receptors and their effects on behavior, but continues collaborations investigating the role of cytokines in auditory nerve development and has a chapter in the forthcoming Oxford Handbook of Auditory Science.

Michael Loose is an Associate Professor of Neuroscience and has taught at Oberlin College since 1990. This spring he taught Neurophysiology, and Studies in Neuronal Function. Mr. Loose also worked with six research students this year examining aspects of decision-making. Several studies were completed studying how the probability of a negative outcome following one’s actions is indexed in the medial/frontal cortex.

Dennison Smith, Professor of Neuroscience and Psychology, began teaching at Oberlin College in 1969. During the last year he taught Human Neurobiology and the introductory Neuroscience Laboratory. He retired at the end of fall semester.

Jan Thornton, Professor of Neuroscience and Biology, came to Oberlin College in 1990. During 2008-2009 she taught a first-year seminar called Science and the Mind, and courses in Hormones, Brain, and Behavior; Neuroendocrine Research Methods; and Behavioral Neuroscience. She and nine student researchers have been using an animal model to study the effects of estrogen on schizophrenia and luteinizing hormone on spatial memory and Alzheimer’s disease. They will be presenting posters at the Society for Behavioral Neuroendocrinology and the Society for Neuroscience in 2009. She will be the faculty host for the June 2009 Oberlin alumni trip to Alaska and will teach in the Oberlin in London program in fall 2009.

Albert Borroni has been at OC since 1996 and is a lecturer in Neuroscience and Computer Science. He is director of the Oberlin Center for Technologically Enhanced Teaching (OCTET) and teaches a seminar on Mind and Machine.

Gisela Knight, Instructional and Technical Assistant, has been with the Neuroscience Department almost since its inception. She assists with laboratory instruction, provides technical support, and assists students with their research projects.

Lori Lindsay has been the animal caretaker since 2003. She recently welcomed a new baby to her family. Bob Conley and Julie Rhineberger have been ably filling in while she has been on maternity leave.

Casey Ross has been the Administrative Assistant in the Neuroscience Department since 2007. She handles much of the day-to-day working of the department. She says she continues to learn about brains—discovering new things every day.

Deb Mull and Dorothy Auble, who work in both the Biology and Neuroscience Departments, continue to help with facilities management and departmental ordering, respectively.
Dennison Smith did it. He retired from Oberlin College at the end of the fall 2008 semester. During fall 2008 he taught the introductory neuroscience course one last time. Denny Smith and Loche Van Atta were the two faculty members who founded the ‘Psychobiology’ major in 1972. The name has changed over the years but Denny has been an integral part of each of the Psychobiology, Biopsychology, and Neuroscience majors ever since. We miss him already.

In honor of Denny, a series of lectures was held during fall semester entitled “Neuroscience Across the Curriculum.” Prominent neuroscientists came and talked about their research in such fields as morality and psychopathology (Blair), neuro-economics and social decision-making (Sanfey), and neural-machine interfaces (Hatsopoulos).

At the end of the semester, to further celebrate his many years of contributions to the Department and College, there was a dinner, a slide show of remembrances, and a symposium at which three of his former students—Wilma Friedman ’79, Chris Moore ’90 and Jason Frazier ’91—spoke about their research in neuroscience.

Denny and his wife, Fran Smith, have returned to their northeastern roots and are living on Cape Cod. They just recently welcomed their first granddaughter.

(See additional photos on website)
New Faculty Member Joins the Neuroscience Department

Tracie Paine has been hired as the new tenure-track faculty member. She comes to Oberlin from McLean Hospital at Harvard University and studies attention. She was recently chosen by the National Alliance for Research on Schizophrenia and Depression as one of the most promising young scientists who are conducting neurobiological research and is the recipient of a 2009 Young Investigator Award. She will use a rat model to study the molecular biology of attention deficits seen in schizophrenia and attention deficit hyperactivity disorder. The title of her proposal is “Contribution of Cortical GABA Tone to Attention and Locomotor Activity: Implications for ADHD.”

At Oberlin, she will teach in the Introductory Neuroscience courses and upper division lecture/discussion and laboratory courses in Neuropharmacology. She may also teach a first-year or senior seminar.

Oberlin Neuroscience in London During Fall 2009

Jan Thornton and Michael Loose will be traveling with 20 Oberlin students to London, England, for fall semester 2009 as part of the Oberlin in London program. Approximately 11 students are Neuroscience majors, and the rest include a smattering of majors in Psychology, English, History, etc. Jan will teach two courses: a non-majors course on Brain, Mind, and Madness; and an upper-division neuroscience course on The Neural and Evolutionary Basis of Emotions. Students will also be able to take courses from two Grinnell faculty members (one of whom is an Oberlin alum) and from some affiliated faculty members in London. Thornton’s courses will take advantage of London in a variety of ways, including a visit from a psychiatrist to talk about the British mental health care system, a visit to a neuroscientist at Oxford, and visits to science museums. We will celebrate the 200th anniversary of the Origin of Species by reading it and visiting Darwin’s house. It should be a lot of fun. If any of you are traveling on the alumni trip to the Cotswolds, we hope to see you in England!

Recent student/faculty publications

(“*” denotes Oberlin student)


Braford: A Favorite Professor

Mark Braford was nominated by first-year students as a favorite instructor, favorite advisor, and favorite mentor as part of the Office of Residential Education’s Professor Props event.

Science Faculty, Staff Raise Funds for Cancer Research

Oberlin faculty and staff organized a Science Center team for the American Cancer Society’s Relay for Life. One of our majors, Sarah Cassella ’09, was among the primary organizers of the relay. Casey Ross, the departmental administrative assistant, was co-chair of the Science Center team. Numerous faculty and staff participated. Camaraderie was increased, and money was raised for a worthy cause.
Oberlin Neuroscience Students Win Awards

Each year Neuroscience faculty members award two prizes to a few of our excellent seniors. This year, the Nancy Robell Memorial Prize in Neuroscience was awarded to Olivia Winter. This prize is awarded for outstanding promise in the field of neuroscience. The Neuroscience Program Prize was awarded to Jo Ling Goh, Grant Martin, Kirsten Selert, and Reva Stidd for their academic excellence.

Six student researchers were inducted into Sigma Xi, the National Scientific Research Society, in 2009 based on their “marked aptitude for scientific research.” They are Sarah Cassella, Jo Ling Goh, Jesse Kane, Isaac Youngstrom, Alexander Roseman, and Kirsten Selert.

Jamie Wagner was awarded the very prestigious 2009 Goldwater Scholarship. Jamie is a junior from North Carolina. She spent last fall in Australia studying flying foxes and plans to pursue a Ph.D. in neurobiology, specifically in molecular neuroscience.

An Update From The Neuroscience Majors’ Committee

By Sage Aronson ’12 and Monica Zell ’10, Co-Chairs

This year the Neuroscience Majors’ Committee (NMC) held many social events, all of which contributed to the formation of new student-student and student-professor relationships. In the fall semester, this included a potluck dinner in November and a neuroscience-related movie night. The faculty also sponsored a get-together “tea” during winter term. In the spring, there was a bowling night and annual t-shirt design contest. This was the first year that neuroscience students made the t-shirts using silkscreen techniques instead of buying them from an outside company. In addition, the Neuroscience majors invited Bruce McEwen ’59 to give a seminar on his research on stress, sex, and the brain. Plans for next year include a Brain Awareness Day at one of the elementary schools, a fundraiser for a cause that is still to be decided, and many more social events. There were multiple new members this year, and we hope for even more next year!
2008-2009 Neuroscience Seminar Speakers

“Amygdala and Ventromedial Prefrontal Cortex Dysfunction and the Development of Psychopathy”
and
“How do the Moralities Develop?”*
James Blair
Chief, Unit on Affective Cognitive Neuroscience Mood and Anxiety Disorders Program - National Inst of Mental Health
October 15

“Decision Neuroscience: Insights into Decision-Making by Examining the Brain”**
and
“Cognitive and Motivational Factors in Social Decision-Making”
Alan Sanfey
Asst. Professor, Dept. of Psychology, University of Arizona
Director, Neural Decision Sciences Laboratory
October 28 and October 29

Symposium in honor of Dennison Smith:

“Thinking with Your Blood? Studies of How Hemodynamics in the Brain May Modulate Neural Activity”
Chris Moore ’90
Assoc. Professor, Neuroscience, Dept. of Brain and Cognitive Sciences
Massachusetts Institute of Technology

“Nerve Growth Factor in the Brain: A Matter of Life or Death”
Wilma Friedman ’79
Assoc. Professor and Chair, Neurocell Biology, Dept. of Biological Sciences, Rutgers University

“Hippocampal Neurophysiology in Aging, Epilepsy, and Drug Abuse”
Jason Frazier ’91
Asst. Professor, Dept. of Pharmacodynamics, University of Florida
December 5 and 6

“Exploiting Sensory Systems for Brain-Machine Interfaces: Turning Thought into Action”**
and
“Propagating Waves in Motor Cortex”
Nicho Hatsopoulos
Asst. Professor, Committee on Computational Neuroscience, University of Chicago
December 9 and 10

“Stress, Sex and Cognitive Processes: Role of Neuronal Remodeling”
Bruce McEwen ’59 **
Alfred E. Mirsky Professor, Harold and Margaret Miliken Hatch Laboratory of Neuroendocrinology, The Rockefeller University
February 13

“Growing Up Cooperatively: Behavioral Biology of Cooperatively Breeding Primates”
Charles Snowdon ’63
Hilldale Professor of Psychology and Zoology, University of Wisconsin- Madison
March 6

“Beyond Sex Steroids: Dissecting the Role of Hypothalamic-Pituitary-Gonadal Axis Hormones on Cognition and Alzheimer’s Disease”
Gemma Casadesus
Director of Behavior Core
Case Western Reserve-School of Medicine– Dept of Neurosciences
March 31

“Strategies to Prevent Blindness”
Connie Capko
Howard Hughes Investigator and Professor of Genetics
Harvard Medical School
April 20
Co-sponsored with the Biology Department

“Neuromodulation Technology: The Convergence of Science, Medicine and Industry”
Jon Eisenberg & Isaac Bright
Vice President and Sr. Legal Counsel, and Director of Business Development
Neuromodulation, MEDTRONIC
April 21

Lectures were sponsored by the Oberlin Neuroscience Department with the help of the Lydia Symons Dubin Neuroscience Memorial Fund
*Sponsored by the Mead Swing Lectureship Fund
**Invited by the Neuroscience Majors Committee

See website (www.oberlin.edu/nsci) for additional speakers, events, and updates.
It is always a pleasure to hear from our alumni. If you would like to be included in future newsletters, tell us about your personal and professional activities and achievements. You may contact us via email (casey.ross@oberlin.edu or jan.thornton@oberlin.edu) or snail mail (Neuroscience Dept, Oberlin College, 119 Woodland St, Oberlin, OH 44074). Be sure to include your name, address, and email address.

**Robert Wurtz to Receive an Honorary Degree from Oberlin College**

The Neuroscience Department is very proud and pleased that Robert Wurtz '58 received an honorary degree from Oberlin College May 2009. Look at any history of Neuroscience, and you will find his name for his pioneering research on visual attention. He developed the techniques for studying the brain activity that underlies vision in awake, behaving monkeys and identified neurons in the primate brain that contribute to visual attention. His more recent work has identified circuits that allow us to view a stable world despite our own movement. He founded the Laboratory of Sensorimotor Research in the National Eye Institute at the National Institutes of Health and is currently head of the Visual Motor Integration Section. He has been elected to the National Academy of Sciences, the American Academy of Arts and Sciences, and the Institute of Medicine. He was president of the Society for Neuroscience in 1990-1991. He has also been a great friend to the Oberlin Neuroscience Department and has mentored many of our graduates.
Thank You Donors!

The Neuroscience Department is extremely grateful for the generous contributions made by many individuals this past year.

Thank you for your support. Your generous contributions enable us to offer research opportunities to students and to sponsor events that benefit the Neuroscience majors as well as the entire student body at Oberlin College.

If you would like to contribute to the Neuroscience Department, please send a check payable to Oberlin College, Office of Development, 50 West Lorain St., Oberlin, OH 44074-1089, and put “For NSCI Dep’t” in the memo line. You can also contact the Development Office at 440-775-8273 or visit www.oberlin.edu/giving/.

Don’t Miss Out!

In an effort to curb print, postage, and environmental costs college-wide, Oberlin is moving several of its print publications online. Please make sure we have your email address, so that you don’t miss out on newsletters, invitations to alumni regional events, and more. You can update your email address (and other information) via OBIEWeb at www.oberlin.edu/alumni. Go to the MyOBIEweb box and click on “register to access the community” (it’s free). Please direct questions to alumni@oberlin.edu or call the Alumni Association at (440) 775-8692.