Neuroscience Welcomes New Faculty Member!

W e offer a warm welcome to our new neuroscience faculty member, Dr. Patrick Simen! Professor Simen’s tenure-track position in cognitive neuroscience is new to our department, a result of the college’s recognition of the importance of this field, as well our need for more classes to accommodate our large number of majors. Professor Simen comes to us from the Princeton Neuroscience Institute at Princeton University, where he is a postdoctoral fellow.

He will begin teaching and doing research at Oberlin in fall 2011. A major focus of his research is the role of reward and cost-monitoring in decision-making in animals and humans. Professor Simen will teach the introductory neuroscience lecture and lab and a lecture and lab in cognitive neuroscience.

THE SEYMOUR BENZER LECTURE IN NEUROSCIENCE

By Mark Braford

IN APRIL, the Seymour Benzer Lectureship in Neuroscience, established by Larry Zipursky ’77, brought distinguished neurobiologist David J. Anderson to campus for two days of intensive interactions with students and faculty. Anderson, who is, coincidentally, the Seymour Benzer Professor of Biology at Caltech, has pioneered in many areas of neuroscience. His lab is currently using genetic and other molecular techniques to dissect the neural circuitry underlying fearful and aggressive behaviors in fruit flies and mice. In addition to an exciting talk and meetings with the faculty, Anderson ran a lecture/discussion session with biology students in Maureen Peters’ genetics course, had dinner with the neuroscience honors students, and led a journal club discussion of two of his recent papers in Nature with neuroscience majors. We look forward to bringing equally exciting Benzer Lecturers to Oberlin in the coming years.

NEUROGENESIS: Oberlin Establishes Nu Rho Psi Chapter

IN SPRING 2011, Oberlin College was granted a charter to establish a local chapter of Nu Rho Psi, the National Honor Society in Neuroscience. This is the first year for the Oberlin chapter, and both seniors and juniors who met the criteria were invited to become charter members. The new inductees include 10 seniors and nine juniors. Faculty members who joined include Michael Loose, Tracie Paine, Jan Thornton, and Brian Woodside. Thanks to Anrey Wang ’12 for all his help in setting up the new chapter!

Nu Rho Psi was founded in 2006, and there are currently 21 chapters and more than 600 members. Nu Rho Psi recognizes students who have achieved excellence in scholarship in neuroscience. It also encourages professional interest and excellence in scholarship, particularly in neuroscience; advances the discipline of neuroscience; encourages intellectual and social interaction between students, faculty, and professionals in neuroscience and related fields; promotes career development in neuroscience and related fields; increases public awareness of neuroscience and its benefits for the individual and society; and encourages service to the community.

To be invited for membership, an Oberlin student must major in neuroscience, have completed at least nine hours in courses in neuroscience (including Introduction to Neuroscience and at least two other lecture/discussion elective courses, at least one of which has to have an NSCI designation), have a minimum grade point average of 3.2 overall, and a minimum grade point average of 3.5 in neuroscience major courses. Oberlin College faculty members who teach and do research in the area of neuroscience may also become active members.
FACULTY AND STAFF ACTIVITIES

Lynne Bianchi, Barker Associate Professor of Neuroscience, began teaching at Oberlin in 1998. She will return to teaching this fall, having completed both her three-year term as associate dean and a sabbatical. She continues to collaborate with her colleagues at the University of Michigan on the role of cytokines in early auditory nerve development. Work completed with Oberlin graduates Jaeda Coutinho-Budd, Brandon Holmes, and Cyrene Sharples was recently submitted for publication.

Mark Braford, professor of biology and neuroscience, has been at Oberlin since 1986. In 2010-11 he taught his first-year seminar, The Brain Is Wider than the Sky; he also taught Neuroanatomy with lab last fall, and he co-taught intro neuroscience with Tracie Paine in the spring. He worked with seven research students and one honors student in his lab this year, and he also coordinated the seminar program (with a lot of help from Casey Ross), which included the first Seymour Benzer Lecture.

Katherine Caldwell has been a visiting assistant professor of neuroscience since 2007 and has now completed her final year at Oberlin. In 2010-11 she taught introductory lab classes, a senior seminar titled Neurobiology of Disease, and The Brain: An Introduction to Neuroscience. Katherine also taught a first-year seminar, Science on the Brain: Examining Discoveries in Neuroscience. Her research interests are related to serotonin 5-HT2C receptors and their effects on dopamine and their role in anxiety. This year she had six students working in the lab on related projects.

Scott Lempka was a visiting assistant professor in neuroscience this spring. He taught two sections of the intro neuroscience laboratory and a lecture course in computational neuroscience. Scott earned a degree in biomedical engineering at Case Western Reserve University and has continued his research as a post-doctoral research fellow at the Cleveland Clinic. His research deals with characterization of the electrode-tissue interface for recording and stimulation applications in the central nervous system through various experimental and theoretical techniques. When not in the lab or classroom, he likes to ride/race his bike and eat cereal.

Mike Loose, associate professor of neuroscience, has taught at Oberlin since 1990. On sabbatical this year, he worked with six students on three different lines of research and revised the introductory neuroscience lab course. Using EEG, his lab investigated two new hypotheses on factors affecting decision-making and determined that worse-than-expected stimuli and highly salient stimuli in general had little effect on the neural correlates of choice he has been studying. He looks forward to returning to teaching next fall and completing two other experiments begun this year with his two new honors students.

Catherine McCormick, professor of biology and neuroscience, arrived at Oberlin in 1986. In 2010-11 she chaired the neuroscience department, taught Fundamentals of Animal Behavior, and worked with two honors students. Among her many activities as chair was coordinating the successful search to fill a new tenure-track position in cognitive neuroscience.

Tracie Paine, assistant professor, joined the department in fall 2009. This year she taught Neuropharmacology and lab, intro to neuroscience, and a senior seminar titled Neurobiology of Mental Illness. In addition, she mentored honors students Ariel Amgott-Kwan, Anna Frackman, and Jon Wachtel. Several additional research students worked in the lab, both helping the honors students and working on other research projects. In the fall, Ariel Amgott-Kwan presented research she collected as a summer research assistant in Tracie’s lab at the Faculty for Undergraduate Neuroscience Conference, a meeting held in conjunction with the Society for Neuroscience Annual Meeting in San Diego. Tracie recently published a paper, “Schizophrenia-like attentional deficits following blockade of prefrontal cortex GABAA receptors,” in the journal Neuropsychopharmacology.

Jan Thornton, professor of neuroscience and biology, began teaching at Oberlin in 1990. She was awarded a competitive Research Status Award for her 2010-11 sabbatical. During the year she continued to do research with students, mentoring five student researchers, including two honors students. She also worked at Rockefeller University in Bruce McEwen’s (’59) laboratory. Research in her lab focused on 1) the possible detrimental effects of high levels of luteinizing hormone in female rats on the hippocampal mechanisms that affect memory and 2) the beneficial effects of estrogen on cognitive symptoms in an animal model of schizophrenia. She and Claire McGregor ’11 will present a poster on their research at the Society for Neuroscience next November. Jan was also elected secretary of the Faculty for Undergraduate Neuroscience (FUN) and served as editor of the national newsletter for Nu Rho Psi, the neuroscience honor society. She and Anrey Wang ’12 organized a chapter of Nu Rho Psi for Oberlin.

Brian Woodside, visiting assistant professor of neuroscience, last fall taught an upper division course called The Neurobiology of Learning and Memory, a section of the introductory lab class, and co-taught The Brain: an Introduction to Neuroscience. This spring he taught Neurophysiology and two modular lab classes: one on the neurobiology of learning and memory and the other on research techniques in neurophysiology. Brian also supervised students in his lab in research projects focused on the cellular processes underlying learning and memory using electrophysiology in both rodent and human research paradigms.
Albert Borroni has been at Oberlin 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 Lindsey has been the animal caretaker since 2003.

Casey Ross has been an administrative assistant with the neuroscience department since 2007. She continues to enjoy the varied duties that make her job so interesting.

Deb Mull and Dorothy Auble, who work in both the biology and neuroscience departments, continue to help with facilities management and departmental ordering, respectively.

NEUROSCIENCE SEMINARS

Keith Downing
Professor, Computer Science
Norwegian University of Science and Technology
Darwin in the Machine: Evolving Neural Networks for Artificial Intelligence
Tuesday, November 30
Sponsored by the Lydia Symons Dubin Neuroscience Memorial Fund

Patrick Simen
Postdoctoral Research Associate
Princeton Neuroscience Institute, Princeton University
The Reward-Seeking Random Walk: A Scale-Invariant Neural Mechanism for Decision Making
Thursday, December 2

Michael L. Spezio
Assistant Professor of Psychology and Neuroscience
Scripps College
Primary Somatosensory Cortex Discriminates Affective Significance in Social Touch
Thursday, December 9

Rachel Diana
Postdoctoral Fellow, University of California, Davis
The Medial Temporal Lobe’s Role in Episodic Memory: A Theory Based on Information Type
Monday, December 13

Larry Squire ’63
Distinguished Professor of Psychiatry, Neurosciences, and Psychology, University of California, San Diego
The Cognitive Neuroscience of Memory
Friday, March 11
Invited by the Neuroscience Majors Committee

Save the Date: Oberlin Reunion at 2012 Society for Neuroscience Meeting

PLAN TO ATTEND the Oberlin neuroscience reunion at the fall 2012 Society for Neuroscience meeting in New Orleans. Mark Braford and Catherine McCormick will be retiring after the 2012-13 academic year, so it seems like a great time to get together to say goodbye and wish them well!
CONGRATULATIONS TO VISITING PROFESSOR KATIE CALDWEll on her move to an exciting new professional position! We are all grateful to Katie for her outstanding contributions in teaching, service, and research mentoring.

Over her four years in the neuroscience department at Oberlin, Katie taught lecture and labs in introductory neuroscience and in Neuropharmacology and developed senior and first-year seminars. She has been a superb mentor to numerous research and honors students in her laboratory, a conscientious academic advisor, the coordinator of the neuroscience honors program, and more—including devising a neuroscience version of the game Taboo that entertained us at student-faculty get-togethers!

We have enjoyed having Katie with us, will miss her, and wish her success and happiness in her new position! She is excited about her new position at Governor's Academy in Massachusetts, where she will be teaching science to high school students. The students will be very lucky to have her.

We are also indebted to Visiting Professors Brian Woodside and Scott Lempka for joining us this year. Brian’s lecture and lab courses in Neurobiology of Learning and Memory and Neurophysiology were fully enrolled. Brian also generously provided many research experiences for our majors. Scott Lempka taught Computational Neuroscience in the spring, also to a full house! We wish both Brian and Scott the best of luck in the future!

THANK YOU DONORS!

The Department of Neuroscience is indebted to the individuals and families who have generously provided philanthropic gifts to enhance our academic program. During the past year, funds were used in part to help students conduct their research, to present their research at scientific meetings, and to support the Neuroscience Department Prize to honor outstanding graduating seniors. We are grateful for your financial support.

If you would like to make a contribution, please send a check payable to Oberlin College to the Office of Development, Oberlin College, 50 West Lorain Street, Oberlin OH, 44074. Please write “Neuroscience Department” in the memo line. You may also use the online donation form at www.oberlin.edu/giving/donate or contact Oberlin’s development office at (800) 693-3167.
Congratulations Student Award Winners!

Each year, members of the neuroscience faculty choose outstanding seniors for departmental prizes. For 2010-11, the Nancy Robell Memorial Prize in Neuroscience/Biopsychology was awarded to Nathan Harris, Marissa Kamarck, and Claire McGregor. This award is given to seniors who show outstanding future promise in the field. Additionally, the Neuroscience Department Prize is awarded to seniors who have distinguished themselves in their academic work. Recipients for 2010-11 were Gabrielle Bromberg, Cassie Burley, Anna Frackman, Monica Volk, and Scarlet Woodrick.

The Faculty for Undergraduate Neuroscience (FUN) offers competitive travel awards to undergraduate researchers to present their research at the annual meeting of the Society for Neuroscience. In 2010 Taylor Soderborg ’10 was honored with a travel award. Cynthia Getschow ’12 (above) received a FUN travel award for her

RECENT STUDENT AND FACULTY PUBLICATIONS

(*denotes Oberlin student)


Ziegler SG* and Thornton JE (2010). Low Luteinizing Hormone enhances spatial memory and has protective effects on memory loss in rats. Hormones and Behavior 58: 705-713.

Neuroscience faculty and students attended the second annual Midwest/Great Lakes Undergraduate Research Symposium in Neuroscience (mGlurS) at Ohio Wesleyan University, Delware, Ohio: Tracie Paine (faculty), Matt Hartsoc ‘12, Scarlet Woodrick ‘11 Katie Caldwell (faculty), Aniel Amgott-Kwan ‘11, Anrey Wang ’12, Nora Hammack ’12, Cindy Getschow ’12, Lindsay Boven, ’12, and Jan Thornton (faculty).
WE LOVE TO HEAR FROM YOU so we can learn about the important events in your lives and share in your triumphs. To be included in future newsletters, tell us about your personal and professional activities and achievements. Contact us via email (casey.ross@oberlin.edu or jan.thornton@oberlin.edu) or postal mail (Neuroscience Department, Oberlin College, 119 Woodland St., Oberlin OH 44074). Be sure to include your name, graduation year, address, and email address. We look forward to hearing from you!

Congratulations to Bob Wurtz ’58! A pioneer and leader in the field of neurophysiology, Bob received the 2010 Neuroscience Prize from The Peter and Patricia Gruber Foundation for his contributions to the field of visual cognition and cognitive neuroscience. Bob was formerly the National Academy of Sciences representative to the IBRO Governing Council.

Bruce McEwen ’59 was recently honored with a share of the prestigious IPSEN Foundations Prize in Neuroplasticity. He was also appointed co-head of the Faculty for Physiology of the Faculty of 1000 (international experts who are highly respected in their chosen fields).

Peter Mayer ’82 was elected chief of staff at Sarasota Memorial Hospital. He is a founding member of the Oberlin College Steel Drum Band, which is celebrating its 30th anniversary this year during Commencement/Reunion Weekend.

Jondavid Pollock ’84 writes: “After graduating with a psychobiology degree from Oberlin in 1984, I completed an MD/PhD at Boston University School of Medicine. I received my doctorate in behavioral neuroscience, wherein I developed an animal-pharmacology model for Huntington’s Disease. I went on to complete training in radiation oncology at the NCI, and I now practice at the Schiffler Cancer Center in Wheeling, WV. My wife, a PhD in the same field, teaches AP biology and AP psychology at our local prep school, and our twin older daughters are entering their sophomore year at Columbia University, where they are both neuroscience majors. I guess it’s all genetic!”

Cynthia Damer ’90 is an associate professor in the biology department at Central Michigan University. She and students research copine protein function in *Dictyostelium*.

Karen L. Gunther ’92 is in an assistant professor of psychology at Wabash College in Crawfordsville, Ind. Congratulations on her recent marriage to Nestor Matthews. They are continuing their long distance relationship, as Nestor is in the psychology department at Denison University.

Sarah Leupen ’93 is teaching at the University of Maryland, Baltimore County (UMBC), mostly anatomy and physiology, but also courses in neurobiology and nutrition.

Heather Patton ’94 is a transplant hepatologist and an assistant clinical professor of medicine in the Division of Gastroenterology at the University of California, San Diego. She attended Northwestern for her internal medicine residency before moving to San Diego with her husband. She completed her GI and hepatology training at Scripps Clinic and UCSD and has been on faculty at UCSD since 2006. Heather has a son, Drew, 4 and a daughter, Audrey, 20 months.

Tanner R. Mullen ’98 is in graduate school at Columbia University after working in the biotech area on drug discovery projects, primarily those involving pharmacology and behavior in mice. Recently he has been involved in a robotics project in which computer vision and data mining tools were used to automate the classification of behavior and prediction of CNS drug activity. In the Firestein lab at Columbia, his focus is to explore the role of adult neurogenesis in mouse olfactory processing using behavioral and transgenic models in tandem with electrophysiological recording.

Bonnie R. Fletcher ’00 earned her PhD in neurobiology in 2007 at the Mount Sinai Graduate School of Biomedical Science. She is currently a staff scientist at the National Institute on Aging, in the Neurocognitive Aging Section, Laboratory of Experimental Gerontology.

Dana Kotler ’00 graduated from Albert Einstein College of Medicine in 2009 and did a year in internal medicine at St. Luke’s-Roosevelt Hospital in New York. She is now a resident in physical medicine and rehabilitation at the Rehabilitation Institute of Chicago/Northwestern University. She has continued her interest in dance and recently choreographed and performed in Action Potential at the Piksel Festival in Norway.

Daniel Staub ’03 is at Temple University, working as a post doc with Dr. Lynn Kirby.

Joe Stein ’03 is working as a family practice physician’s assistant in the inner city in Columbus.

Ian White ’04 is a software engineering manager at Apple.

Darcey Hull ’07 is pursuing a master’s degree in speech language pathology at the University of Iowa. She writes, “I’m hoping to stay in touch and would love to host Obies at ANY TIME—students, faculty, whoever. I hate leaving Ohio, but I have to!”

Dayna Wick ’09 is working in the psychiatry department at the University of Cincinnati, researching stress neurobiology.

Kirsten Selert ’10 will begin a PhD program in fall 2011 at the Sackler Institute of Graduate Biomedical Sciences at New York University.
It's hard for me to believe just how much has happened in and around the Department of Neuroscience over the last few months. Since I became the Neuroscience Majors Committee (NMC) chair this past February, we have planned tons of wonderful events for neuroscience majors! In March, we enjoyed a screening of the Steve Martin classic The Man with Two Brains.” Later in the month, the NMC invited Professor Larry Squire '63, one of the world’s foremost experts on the neuroscience of memory, to speak to a general audience about his research. Following the lecture, majors joined Professor Squire for lunch and a journal club and Q&A session. At the end of April, the NMC sponsored a student-faculty bowling night at Oberlin’s own College Lanes. Although the pizza ran out much too fast, everyone had a great time! The NMC also sold plenty of department t-shirts this year. We offered two clothing options: a new “2010-11” design by a student, and a “forever” design that featured a quote by David Hubel. Both of the shirts are available for purchase by parents, alumni, and friends of the department.

Next semester, the NMC and Oberlin’s newly-approved chapter of Nu Rho Psi, the national neuroscience honors organization, will be sorting out responsibilities for majors’ activities, such as a panel presentation on Honors research and student research, our autumn department picnic, our annual visits to local elementary schools during Brain Awareness Week and much more!

—By Sam Asinof ’12

Top: Neuroscience majors and faculty enjoy pizza and bowling. Marion Park ’12, Sam Asinof ’12, Eli Goshorn ’12, Athreya Tata ’12, and Jay Mejia ’12, with Jan Thornton and Cathy McCormick (faculty members) in the background. Middle: In the forefront, Athreya Tata ’12, Sam Asinof ’12, Jay Mejia ’12, and Stephanie Mora ’12. Bottom: Modeling t-shirts are Sam Asinof ’12 in the Neuroscience Department “Forever” shirt and Eliza Milner ’11 in her winning “GABA GABA HEY” design.
CONGRATULATIONS NEW GRADS!

We warmly congratulate our graduating neuroscience seniors and their families. We know you must be extremely proud of the work you have done. We wish you the best of luck in all your future endeavors. Please keep in touch!

December 2010 and May 2011 Graduates
Adriana Akintobi
Ariel Amgott-Kwan
Evan Atwell
Gabrielle Bromberg
Cassie Burley
Briana Carroll
Julia Chafrin
Ryan Colon
Melissa DeLombaert
Anna Frackman
Nora Hammack
Nathan Harris
Anna Hertzberg
Marissa Kamarck
Abby Laman-Maharg
Tyler Lewis
Jacob Mallott
Claire McGregor
Andy McLaughlin
Amanda Miller
Eliza Milner
Mari Monosoff-Richards
Thao Phan
Mike Rauscher
Allison Richards
Isabel Roth
Rebecca Sim
Alia Syed
Alex Tavares
Robin Taxier
Christyn Tigue
Monica Volk
Jon Wachtel
Scarlet Woodrick
Louie Zamora

Commencement News

You are invited to attend the Neuroscience Department Open House during Reunion/Commencement Weekend. This year’s annual event will be held on Sunday, May 29, from 9:30 to 11:30 a.m. in the Love Lounge on the second floor of the Science Center. If you will be in Oberlin, please stop by. We love to catch up with alumni and meet the family and friends of graduating seniors.