

Neuroscience Graduate Progam NGP NEWSLETTER 2018



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Neuroscience Graduate Program Committees:

Admissions Committee Steering Committee Executive Committee

Doug Portman, Chair Charles Duffv Greg DeAngelis Chris Holt Farran Briggs Diane Dalecki Ania Majewska Ruchira Singh John Foxe John Olschowka Ania Majewska Handy Gelbard Liz Romanski John Olschowka Kerry O'Banion Ruchira Singh Tania Pasternak David Williams

Pat White Douglas Portman

Hugh Xia

2018 Convocation Awards

Graduate Student Achievement Awards

Gregory Reilly — 1st yr NGP J. Newell Stannard Graduate Student Scholarship Award

Kathryn Toffolo — 1st yr NGP *Merritt and Marjorie Cleveland Fellowship Award*

Monique Mendes — 4th NGP Outstanding Student Mentor Award

Postdoctoral Achievement Awards

Kevin A. Mazurek, PhD — currently Research Assistant Professor, Neuroscience Dept

Faculty Teaching, Mentoring & Diversity Awards

Martha J. Gdowski, PhD

Ania Majewska, PhD

Sarah E. McConnell, PhD

Sergiy M. Nadtochiy, PhD

Contact Us

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Rochester, NY 14642

https://www.urmc.rochester.edu/education/graduate/phd/neurosciences.aspx
Tori D'Agostino, Neuroscience Graduate Program Coordinator
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Congratulations to

NGP Faculty
member Rick Libby
on being appointed
Senior Associate
Dean for Graduate

See page 6 for full article

Studies!

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Notes from Ania Majewska — NGP Director

Dear Friends,

Welcome to the start of another academic year! As you will see in the following pages, NGP students and faculty have been remarkably busy over the last year — producing great science, garnering grants and accolades, and educating future scientists and the lay public. We are incredibly lucky to be part of such a great neuroscience community, surrounded by talented and collaborative colleagues.

This has been a busy year for the neuroscience community with multiple searches for neuroscience faculty and increased recruitment for the graduate program. We appreciate the support of John Foxe and the Del Monte Institute of Neuroscience in growing the NGP and want to thank all of our students and faculty who contributed to our record year recruitment of 12 first year students! Read on to learn more about these diverse and talented young scientists. We have also added two new faculty members to NGP – Adam Snyder from Brain and Cognitive Science and Madalina Tivarus from Imaging Sciences, bringing our faculty count to 70 representing 20 different departments across the university. We are also really excited to have Rick Libby, one of our own, take over the helm of graduate education at URMC in the role as Senior Associate Dean for Graduate Education.

We said good bye to Aleta Steevens who defended her thesis and moved to a postdoctoral position at the University of Minnesota (although her greatest recent achievement is pictured on page 12). We are very proud of the achievements of our alumni. You will find an alumni directory at the end of this newsletter. Please help us keep this directory current by updating any old information and letting us know of any accomplishments, honors or awards that you or



your fellow alumni may have received. We want to celebrate your exciting news and document your successes.

Lastly, I would like to encourage all of you to attend our student seminar series which is held on Mondays at 4pm in K307. It is a great opportunity to learn about the exciting work being done in our community while

supporting the development of our students. This year our students will also be hosting a series of seminar speakers including Jennifer Groh (Duke University), Mark Bear (MIT), Stacy Bilbo (Harvard University) and Jeffrey Macklis (Harvard University). A huge thank you to Holly Beaulac, Jessie Hogestyn, Farran Briggs and Jesse Schallek for keeping this series running smoothly and to all the students and faculty who attend and contribute to the vibrant discussions.

I am looking forward to another exciting year in NGP. I encourage you all to communicate with me or any member of the NGP steering or executive committees if you have any suggestions on ways to improve our program. Your input is important!

Regards, Ania Majewska, PhD

SU(i)B

Student Updates — (in) Brief

Be sure to check out the SU(i)B callouts interspersed throughout this newsletter for blurbs and photos highlighting a plethera of noteworthy NGP student activities.

Look for the SU(i)B boxes!

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Notes from Doug Portman — NGP Admissions Committee Chair

This year marked yet another busy season for the NGP admissions committee. Applications to the program continue to grow, going from 100 in 2016 and 109 last year to 119 in the 2018 cycle. After careful consideration of each application, we hosted 32 candidates from all over the US in on-campus interview visits this year. Special thanks go to Tori D'Agostino, NGP Coordinator, for her heroic efforts in organizing four separate interview days without a hitch! Members of our community pull out all the stops during these visits, working hard to evaluate applicants and to demonstrate the terrific opportuni-



ties that Rochester has to offer. The thoughtful evaluations provided by NGP faculty interviewers are invaluable to the admissions committee—we very much appreciate the time and effort that faculty put into meeting with candidates. Current NGP graduate students also play a key role in the admissions process: this year, nearly all of our students devoted time and energy to welcoming candidates to campus, escorting them from meeting to meeting, and hosting a series of events to give applicants a sense of the terrific community that NGP fosters. In particular, the student representatives to the Admissions Committee (Kate Andersh, Neal Shah, and Emily Warner) did a fantastic job organizing multiple events and working to attract the best applicants to Rochester.

As a result of these efforts, as well as a continued commitment from John Foxe and the DelMonte Institute for Neuroscience to grow the NGP, we are delighted to welcome a bumper crop of twelve first-year students into the program. More information about these terrific new members of our community can be found elsewhere in this newsletter. As always, the NGP admissions committee (currently comprised of Farran Briggs, Ania Majewska, John Olschowka, Doug Portman, Liz Romanski, and Ruchira Singh) welcomes your input on the admissions process. If you have ideas about improving any aspect of our work, please contact any one of us.

Doug Portman Chair, NGP Admissions Committee

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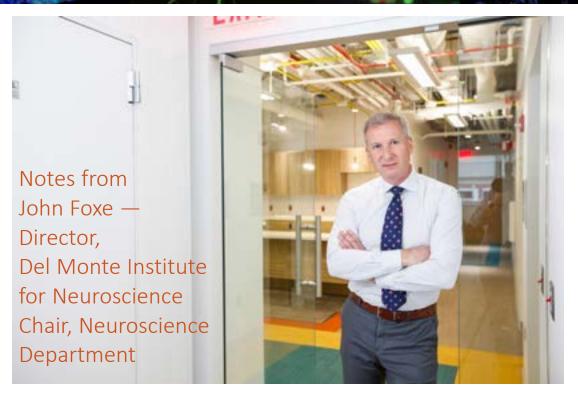
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It has been another fantastic year for the Del Monte Institute for Neuroscience and the Department of Neuroscience. We have completely moved into our new administrative offices and are feeling quite at home. The labs of Drs. O'Bannion, Olshowka, and Padmanabhan have also moved to their new spots in KMRB.

The depth and breadth of work going on in our institute is truly astonishing, and it continues to grow. Joint appointments in Neuroscience were granted to Drs. David Dodell-Feder, Manuel Gomez-Ramirez, Michelle Janelsins, Ian Kleckner, Hochang Benjamin Lee, Sergiy Nadtochiy, Howard Thomas, and Adam Synder. We also welcomed a cohort of Research Assistant Professors including Adam Rouse, Tufikameni Brima, Kevin Mazurek, and Andrew Anderson. Dr. Rashid Deane, Research Professor, joined the Department in March 2018. Faculty recruitment efforts in areas of Alzheimer's disease, Augmented and Virtual Reality, Intellectual and Developmental Disabilities, and neural device design have yielded their first results. We are happy to announce that Dr. Kuan Hong Wang,

Chief of the NIMH unit on Neural Circuits and Adaptive Behavior, will officially be joining our faculty in the New Year 2019. And last, but not least, the Rochester Center for Brain Imaging (RCBI; across the street) is in the final stages of renovation and will house the laboratories of Drs. Lalor, Lin, and Maddox.

To support our growing department, we have also had continued success in securing grant funding, providing our students with many and varied training opportunities.

Over the past year we have we congratulated six (!) newly-minted PhD's from our graduate program, and said good-bye to Drs. John Hansen, Bethany Plakke, Robert Schor, and Suzanne Stevens.

We are absolutely delighted to have you here with us and look forward to your vigorous participation in our exciting new programs in the years ahead.

John Foxe, PhD
Professor & Chair, Department of
Neuroscience
Director, Del Monte Institute for Neuroscience

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NGP Faculty Member, Rick Libby, Leading Graduate Education

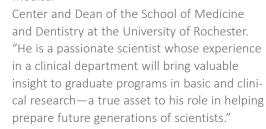
Richard T. Libby Ph.D., professor of Ophthalmology and of Biomedical Genetics at the University of Rochester School of Medicine and Dentistry, and a member of the University's Center for Visual Science, has been named Senior Associate Dean for Graduate Education and Postdoctoral Affairs (GEPA), pending approval of the University Board of Trustees. Libby will direct the School of Medicine and Dentistry's Ph.D., postdoctoral and master's degree programs.

An innovative researcher in the neurobiology of glaucoma, Libby arrived in Rochester in 2006 after postdoctoral and fellowship experiences that enlightened him on the power of model genetics systems in the study of eye disease. He was named associate professor in 2012, and professor in 2018. He received a doctorate degree in biology from Boston College in the field of neurodevelopment. Years spent training at the Medical Research Council's Institute for Hearing Research in Nottingham, England, and the Jackson Laboratory in Bar Harbor, Maine, formed the foundation for his current laboratory, which is focused on understanding the cell signaling pathways that lead to vision loss in glaucoma.

Libby is director of the Cell Biology of Disease Graduate Program, has served on numerous academic committees integral to research activities and graduate education, and is a respected mentor and teacher. He has published, as author or co-author, more than 60 peer-reviewed scientific articles and numerous reviews, book chapters and commentaries, and has presented internationally on a range of topics in eye and vision research.

"Rick understands that excellence in a research enterprise is essential to attracting the best and brightest talent and has articulated a vision for further improving the experience here, making it clear to the outside world that Rochester is the best place to learn

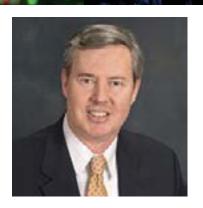
and study," said Mark Taubman, M.D., CEO of the Medical



"Complementing his expertise in leading graduate programs, and thorough understanding of their needs, Rick has developed a thoughtful approach to what it will take to continue moving them forward. It's clear that he's driven by a desire to develop our trainees and motivated to give them the best graduate/postdoctoral experience possible," said Stephen Dewhurst, Ph.D., Vice Dean for Research at the School of Medicine and Dentistry and Associate Vice President for Health Sciences Research at the University of Rochester. "In addition, having developed his own career in a somewhat untraditional way, Rick brings an added dimension to understanding and supporting others who are exploring diverse career options."

"Rick is a great choice to succeed Edith Lord as the Senior Associate Dean for Graduate Education," said Dirk Bohmann, Ph.D., Donald M. Foster, M.D. Professor of Biomedical Genetics and Senior Associate Dean for Basic Research, who led the search committee. "He realizes that research excellence and successful graduate and postdoctoral programs are mutually dependent. You cannot have one without the other. He will be a passionate advocate for the graduate students and postdocs."

https://www.urmc.rochester.edu/news/story/5412/ richard-libby-to-lead-graduate-education-at-school-ofmedicine-and-dentistry.aspx



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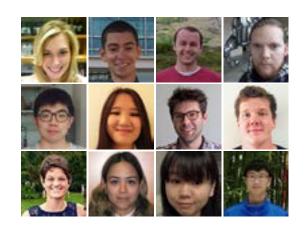
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Class of 2018 NGP Student Admissions

Introducing the class of 2018 — a banner year for our Neuroscience Graduate Program! At 12 admissions, this is our largest class to date. Please join us in a big welcome to this promising group of future neuroscientists!





Alesha Foster — graduated in 2015 from University of California, San Diego with a B.S. in Physiology and Neuroscience. During her time at UCSD she performed research in Dr. Stefan Leutgeb's lab, studying aging and its effects on hippocampal spatial coding. After finishing her degree, she moved to Rochester and began working for Dr. Tatiana Pasternak. Here she analyzed behavior, and used electrophysiology to study cortical circuitry. She is currently doing her first rotation in Dr. Mark Noble's lab, studying alternative clinical treatments for mesenchymal glioblastoma tumors. At URMC she hopes to continue researching treatments for conditions affecting the nervous system.



Cody McKee — received his Bachelor's degree in Biology from SUNY Geneseo in 2017. As an undergrad he performed statistical analyses elucidating behavioral/health correlates that would explain Alzheimer's disease (AD) prevalence in each state. Following graduation he was accepted into the Post-Baccalaureate Research Education Program (PREP) at the University of Rochester where he studied lysosome dysfunction in AD under the mentorship of Dr. Chris Pröschel. As a member of the NGP, he hopes to continue exploring both the mechanisms by which memories are formed, and the diseases that result in their disruption.



Gregory Reilly — graduated from The Schreyer Honors College at The Pennsylvania State University with a B.S. in Biochemistry and Molecular Biology with a minor in Neuroscience. During his undergraduate studies, he primarily engaged in research in the lab of Dr. Lorraine Santy studying various proteins that contribute to cellular motility. His thesis

focused on a scaffold protein in the HGF pathway and its binding activity with other proteins. In his graduate studies, he hopes to examine protein mutations that occur in various neurodegenerative diseases.

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$\frac{SU_{(i)}B}{PhD \ Defense}$

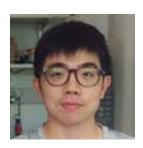
Aleta Steevens defended on April 16, 2018

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Jacob Rudlong—is a recent graduate of the University of New England (UNE), where he received a Bachelor of Science in Neuroscience, with a minor in Applied Mathematics. During his time at UNE he worked in the lab of Dr. Michael Burman, a behavioral neuroscience lab focused primarily on investigating neonatal pain and its effects on later development, using rat models. At URMC, he hopes to study neurodegeneration and the pathogenesis of mental illnesses such as Alzheimer's and Schizophrenia.



Dennis Jung — holds a Bachelor's Degree in Bioengineering:
Biotechnology from the University of California at San Diego. He conducted his research under Dr. Nandakumar Narayanan at the University of Iowa. He primarily worked on a closed-loop phase-locked optogenetic stimulation system and explored its effectiveness when used for subjects with Parkinsonian symptoms. At URMC, he hopes to work in electrophysiology and develop a technique to fully understand the neural signals.



Fei Shang — graduated from SUNY Binghamton with a B.S. in Integrative Neuroscience. During undergrad, she encountered a broad spectrum of research projects. Three projects involved work with Sprague-Dawley rats. Under Dr. Corinne Kiessling, she evaluated baseline sex differences as well as examined the role of acetylcholine and dopamine in the motor and cognitive deficits of Parkinson's Disease. The final project was with Dr. Patricia Di Lorenzo's lab. It involved examining the response to a conditioned taste aversion and what neural circuitry might affect the response. Fei also had the opportunity to intern at Cold Spring Harbor Laboratory and worked with a mouse model of autism. At Rochester, she hopes to focus on the mechanisms behind neurological diseases.



Luke Shaw — received a Bachelor of Science in Neuroscience from University of Rochester in 2010 and a Master of Fine Arts in Imaging Arts from Rochester Institute of Technology in 2013. After working as an adjunct professor of Video Narrative Art at the Pennsylvania College of Art and Design in 2014, he returned to Rochester to serve as a technician in the lab of Dr. John Foxe. He has taken a leadership role in

lab of Dr. John Foxe. He has taken a leadership role in projects relating to cross-sensory task switching and EEG biomarkers of the progression of Batten Disease. He has also assisted in the technical development and prosecution of many of the projects underway at the Foxe lab, which range from behavioral and MRI assessments of child development to intracranial recordings of epilepsy patients. He hopes to further study the effects of disease on the electrophysiology of sensory processing in people and animal models.

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Spotlight on Jessie Hogestyn

Jessie Hogestyn earned 3rd Place at the Graduate Student Society Poster Session. She also received a Schmitt Program on Integrative Neuroscience (SPIN) Student Travel Award.



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Mark Stoessel — graduated from University of Rochester with a B.S. in Neuroscience and a minor in History. As an undergraduate he worked with Dr. Mark Noble, studying novel treatments of glioblastoma. After he graduated he took a position with Dr. Steven Goldman, also at URMC, looking at the role of oligodendrocytes and oligodendrocyte precursor cells in Huntington's Disease. He hopes to continue to study the biological underpinnings of psychiatric and neurological diseases.



Kathryn Toffolo — obtained a B.S. in biological sciences with a concentration in neuroscience, as well as a B.A. in studio art, from the University at Buffalo. For the last two years, she has been working in rat injury models with Dr. David Poulsen, who is researching miRNA biomarkers and the efficacy of phenoxybenzamine in both traumatic brain injury and stroke. The lab also explores behavioral scoring and specific brain volume changes, as well as the development of calcification in the thalamus in relation to repeated mild head injury. Her first paper has been submitted into Neuropharmacology for review in March of 2018 and is awaiting publication. In her graduate studies she hopes to explore neurodegenerative diseases and neuropsychiatric disorders.



Farangis Tolibzoda — graduated from CUNY Hunter College with a B.A. degree in Psychology. Before joining the MSTP at University of Rochester, her research experience included investigation of small molecule probes for their effects on TrkB/BDNF signaling at Dr. Dalibor Sames' lab. She also worked with Dr. Tracy Dennis researching the effect of curcumin on anxiety. Working with Dr. Catherine Collins she looked into the mitochondrial dynamics following motor neuron injury. Currently her research interests include factors involved in neuronal degeneration, as well as enhancement of neuronal resilience during stress.



Jingyi Yang — recently graduated from the Case Western Reserve University with a Bachelor of Science in Biology where she worked primarily in the lab of Dr. Hillel Chiel in collaboration with Dr. Roberto F. Galán, studying the neural network of feeding behavior in Aplysia using both behavioral analysis and the multiple electrode array. In her graduate studies, she hopes to further explore and learn something new, such as the neuroscience that is related to the visual system.



Silei Zhu — graduated from Sun Yat-sen University, China in 2018 with a B.S. in Biological Science. During his undergraduate, he has worked in labs at Sun Yat-sen University as well as at University of California, Berkeley, researching the DNA packaging mechanisms of the baculovirus and the neural circuits of sleep. Most recently, his undergraduate thesis focused on developing a new viral vector for neurocircuit research using the baculovirus. At URMC, he hopes to conduct research into the visual circuitry in the non-human primate.

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2018 Neuroscience Retreat



This year's Neuroscience Retreat was held at the Memorial Art Gallery on April 20, 2018. With more than 150 attendees, the day was a success. This year's keynote lecturer was Brian A. MacVicar, PhD. FRSC, FCAHS who spoke about "New roles for pericytes and astrocytes in the function, repair and regeneration of cerebral blood vessels". Dr. MacVicar is the Co-Director of the Djavad Mowafaghian Centre for Brain Health at the University of British Columbia and Vancouver Coastal Health.

Brian A. MacVicar Keynote Speaker



John Olschowka (on leftl) received the 2nd Annual Peter Shrager Award from John Foxe

John O'Donnell (on left)
received from Peter
Shrager the Robert Doty
prize for this year's
outstanding dissertation
in neuroscience

Third year students at the 2018 Neuroscience Retreat. Top to Bottom: Neal Shah, YP (Yunpeng Pang), Kathleen Gates, Emily Warner, Ally McHale.

Thank you, Retreat Committee

for organizing another successfu retreat. Ally McHale, YP (Yunpeng Pang) Rianne Stowell Monique Mendes

Kathleen Gates Krishnan Padmanabhan, Ph.D.

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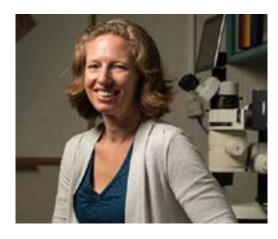
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Mark your calendar!

2019 Neuroscience Retreat April 12th at the Memorial Art Gallery We hope to see you there!

Laboratory Rotation Opportunities

First year Neuroscience Graduate Program students are required to rotate in three laboratories before selecting a research advisor. Below are some of the laboratories currently looking for students; this list is not exhaustive. A more complete list can be found at https://www.urmc.rochester.edu/education/ graduate/phd/neurosciences/students/rotations.aspx



Dr. Farran Briggs Lab — In the Briggs laboratory, we are interested in understanding how specific and identified cortical circuits encode information about the visual world. We also examine how attention impacts the way in which visual information is encoded by neurons and circuits. We use a variety of technical approaches including multi-electrode array recordings in alert and behaving animals trained on attention-demanding tasks and combination of multi-electrode array recordings with optogenetics to record and manipulate the activity of select neuronal populations in intact animals. In order to match neurophysiological recordings to identified neurons and circuits, we perform histology and reconstruct the anatomical structure of recorded and labeled neurons.



Dr. Jennifer Hunter Lab — Two-photon excited fluorescence (TPEF) imaging of the living eye has the potential to reveal cellular structure and function of neurons related to vision and cellular metabolism. In the Hunter lab, we develop and utilise custom-built adaptive optics scanning light ophthalmoscopes to visualize TPEF from multiple classes of cell mosaics in the living macaque and mouse eyes. We track changes in fluorescence intensity and measure the properties of fluorescence in healthy animals and in animal models of disease. We are also in the process of translating this technology to use in humans. Refinement of these imaging modalities could lead to improved understanding of retinal fluorescence and the development of early indicators for human disease. There is an opening for at least one student this year.

More lab opportunities on next page

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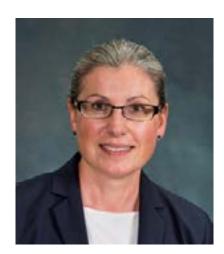
Laboratory Rotation Opportunities (continued from previous page)

Dr. Krystel Huxlin Lab

 Over ¼ to ½ million new cases of blindness arise each year in the US alone from strokes that damage the primary visual cortex. In contrast to well-established therapies to treat motor deficits, there are currently no accepted, standardized rehabilitation strategies for stroke-induced vision loss. Most patients are simply told to learn to live with their blindness. At best, they are

referred to low vision clinics for fitting with prism-in-glasses or for eye movement therapy, which teach compensation for the deficit rather than restoration.

Over the last 15 years, our lab has focused on developing methods to regain vision inside cortically-blinded areas and to study the underlying neural mechanisms. Students in our lab have used visual psychophysics, manipulations of endogenous and exogenous attention (both feature and spatial), functional MRI, EEG and non-invasive brain stimulation in



both visually-intact controls and patients. Currently, a number of new projects are being developed. One examines the potential integration of our most successful visual training paradigm into virtual reality platforms that incorporate eye movement analyses and gaze-contingent stimulus manipulations. Second, we are interested in studying and harnessing the special plasticity that appears to be present early after

stroke. Finally, we are starting work aimed at characterizing multi-sensory integration in cortically blinded patients, asking what happens to this process when vision is damaged, and if intact, whether it can be recruited to enhance visual recovery. Incoming students will join a dynamic, collaborative laboratory environment, learn a range of experimental techniques pertinent to their specific goals and be trained to perform human-based research with humanity and rigor.

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Thinkers and Drinkers On Air

On June 26, 2018, Jessica Hogestyn and Heather Natola appeared on Connections http://wxxinews.org/programs/connections, a

radio show hosted by Evan Dawson on WXXI. They talked about "Thinkers and Drinkers", the science communications club they founded last year. Jessica and Heather talked about how the group was formed, what they do at events, and why they think it's important to discuss scientific research with the general public.



Laboratory Rotation Opportunities (continued from previous page)

Dr. Gail V. W. Johnson Lab

— The Johnson lab is involved in studying molecular mechanisms that underlay neurodegeneration. In particular studies in her lab are focused in two areas: (1) on understanding the regulation and function of the protein in tau in the context of Alzheimer's disease, and (2) on how a protein called transglutaminase 2 (TG2) differentially impacts the survival and function of neurons and astrocytes following CNS injury.

In the context of the first area, a major focus of her studies involves determining how a neuron recognizes tau that is abnormally modified or no longer functional, and targets it to the autophagy pathway for degradation. In particular her group is interested in determining if a complex containing BAG3 and other interacting proteins plays a role in not only directing tau to autophagy, but also in mediating the autophagy process. In the context of the



second area of study, there is a focus on determining the differential roles of TG2 in regulating gene expression profiles in neurons and astrocytes. In astrocytes, TG2 plays a detrimental role following injury resulting in decreased survival of the astrocytes and an impaired ability to protect neurons. Conversely, TG2 supports neuronal survival and improves outcomes after insults. Possible mechanisms underlying these fundamental

differences in TG2 function in neurons and astrocytes are being explored.

Rotation students would have the opportunity to choose to work on a project in either area. Although we do carry out studies using mouse models, rotation projects are usually primarily cell-based. Rotation projects would involve a variety of molecular and cellular techniques, with the specific project being determined by the student's interests.

More lab opportunities on next page

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SU(i)B

Welcome Calvin Eastman!

Aleta Steevens's son,

Calvin Eastman, was born on May 17, 2018. Pictured: Calvin with his brother Archer (Archie) Dale.



Laboratory Rotation Opportunities (continued from previous page)



Dr. Martina Poletti Lab — Active Perception Lab. My research stands at the intersection of visual perception, action and attention. The overarching goal of my research is to understand how the interplay of attention and motor behavior enables visual perception in humans. To this end, my laboratory uses a variety of techniques, including precise eye- and head-tracking, visual psychophysics, and gaze-contingent manipulation of retinal stimulation. The primary focus of my research is in visual functions within the foveola, a small high-acuity region of the retina that humans use to inspect objects of interest. This region is essential for normal operation, yet surprisingly little is known about its mechanisms. Ongoing research projects in the lab explore the spatiotemporal dynamics of attention and saliency maps at the foveal scale, perceptual enhancements associated with eye movement execution and planning, and the plasticity of fine oculomotor behavior. Upcoming research projects will investigate the links between individual variability in the receptors mosaic in the fovea and idiosyncrasies in the characteristics of microscopic eye movements using retinal imaging techniques. The lab is accepting rotating students who are interested in working on these projects.



Dr. Tania Pasternak Lab — The ability to briefly store visual information is fundamental to successful execution of visually guided behaviors. Research in my lab is aimed at the study of the circuitry underlying the active maintenance of the representation of sensory information, i.e. sensory working memory. The overriding goal is to provide a link between cortical areas traditionally associated with processing of visual motion (area MT) and the region identified with cognitive control of visually guided behaviors, prefrontal cortex and relate neural activity recorded in these two regions to perceptual decisions.

Students rotating in the lab will have an opportunity to become familiar with procedures involved in neurophysiological recordings from behaving monkeys, including behavioral training techniques, single-cell recordings, analysis of neuronal activity, approaches to the study of behavioral effects of microstimulation and inactivation of identified cortical regions. They will work closely with other lab members and participate in the lab's weekly Journal Club.

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Monteagudo A, Feola J, Natola H, Ji C, Pröschel C, Johnson GVW (2018 Jun 30). Depletion of astrocytic transglutaminase 2 improves injury outcomes. Molecular and cellular neurosciences.

Harder JM, Williams PA, Soto I, Foxworth NE, Fernandes KA, Freeburg NF, Libby RT, John SWM (2018 Jun 13). Jnk2 deficiency increases the rate of glaucomatous neurodegeneration in ocular hypertensive DBA/2J mice. Cell death & disease.

Lockwood CT, Vaughn W, Duffy CJ (2018 Jun 6). Attentional ERPs distinguish aging and early Alzheimer's dementia. Neurobiology of aging.

DSouza AM, Abidin AZ, Chockanathan U, Schifitto G, Wismüller A (2018 May 16). Mutual connectivity analysis of restingstate functional MRI data with local models. Neurolmage.

Miller-Rhodes P (2018 May 9). CX3CR1 Does Not Universally Mediate Microglia-Neuron Crosstalk during Synaptic Plasticity.; The Journal of neuroscience: the official journal of the Society for Neuroscience.

Rausch RL, Libby RT, Kiernan AE (2018 May 8). Ciliary margin-derived BMP4 does not have a major role in ocular development.; PloS one.

Hasse, J. M., Bragg, E. M., Murphy, A. J., & Briggs, F. (2018 Apr 17). Morphological heterogeneity among corticogeniculate neurons in ferrets: quantification and comparison with a previous report in macaque monkeys. Journal of Comparative Neurology.

Paquette ST, Dawes RP, Sundar IK, Rahman I, Brown EB, White PM (2018 Apr 10). Chronic cigarette smoke exposure drives spiral ganglion neuron loss in mice. Scientific reports.

Yoo SBM, Sleezer BJ, Hayden BY (2018 Mar 21). Robust Encoding of Spatial Information in Orbitofrontal Cortex and Striatum. Journal of cognitive neuroscience.

Fahrenthold BK, Fernandes KA, Libby RT (2018) Mar 15). Assessment of intrinsic and extrinsic signaling pathway in excitotoxic retinal ganglion cell death. Scientific reports.

Publication Spotlight on Patrick Miller-Rhodes

Fourth year NGP graduate student Patrick Miller-Rhodes (Gelbard lab) recently published a single author review in Journal of Neuroscience (Journal Club, J Neurosci. 2018 38(19):4457-4459) tackling the fascinating and timely topic of the heterogeneity of microglial mechanisms that contribute to normal brain functions such as synaptic plasticity. In this publication, Patrick highlights a recent study by NGP alumna Rebecca Lowery (Majewska lab; Glia 65(11):1744-1761), showing that microglial CX3CR1 loss does not affect multiple forms of plasticity, to make his point that the mechanisms microglia use to support neuronal function are likely diverse and differ based on brain region and developmental stage.

Fernandes KA, Mitchell KL, Patel A, Marola OJ, Shrager P, Zack DJ, Libby RT, Welsbie DS (2018) Mar 8). Role of SARM1 and DR6 in retinal ganglion cell axonal and somal degeneration following axonal injury. Experimental eye research.

Fagan KA, Luo J, Lagoy RC, Schroeder FC, Albrecht DR, Portman DS (2018 Mar 3). A Single-Neuron Chemosensory Switch Determines the Valence of a Sexually Dimorphic Sensory Behavior. Current biology: CB.

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Huxlin KR, Cavanaugh MR (2018 Feb 27). Author response: Visual discrimination training improves Humphrey perimetry in chronic cortically induced blindness. Neurology.

Morris AE, Norris SA, Perlmutter JS, Mink JW (2018 Feb 20). Quantitative, clinically relevant acoustic measurements of focal embouchure dystonia. Movement disorders: official journal of the Movement Disorder Society.

Rausch RL, Libby RT, Kiernan AE (2018 Feb 13). Trabecular meshwork morphogenesis: A comparative analysis of wildtype and anterior segment dysgenesis mouse models.; Experimental eye research.

Hogestyn JM, Mock DJ, Mayer-Proschel M (2018 Feb). Contributions of neurotropic human herpesviruses herpes simplex virus 1 and human herpesvirus 6 to neurodegenerative disease pathology. Neural regeneration research.

Smith NA, Kress BT, Lu Y, Chandler-Militello D, Benraiss A, Nedergaard M (2018 Jan 30). Fluorescent Ca2+ indicators directly inhibit the Na,K-ATPase and disrupt cellular functions. Science signaling.

Whitelaw BS (2018 Jan 1). Microglia-mediated synaptic elimination in neuronal development and disease. Journal of neurophysiology.

Stowell RD, Wong EL, Batchelor HN, Mendes MS, Lamantia CE, Whitelaw BS, Majewska AK (2017 Dec 29). Cerebellar microglia are dynamically unique and survey Purkinje neurons in vivo. Developmental neurobiology.

Cavanaugh MR, Barbot A, Carrasco M, Huxlin KR (2017 Dec 10). Feature-based attention potentiates recovery of fine direction discrimination in cortically blind patients.; Neuropsychologia.

Punekar IRA, Khouri JS, Catanzaro M, Shaikh AL, Langstein HN (2017 Oct 13). Redefining the Rectus Sheath: implications for Abdominal Wall Repair.; Plastic and reconstructive surgery.

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Publication Spotlight

on two Briggs Lab students

First year student Allison Murphy co-authored a paper with the Briggs lab while in a rotation with the lab. Allison contributed an extensive amount of work toward the paper during her fall rotation, and the paper was accepted shortly after her joining the lab.

Postdoctoral fellow, **Mike Hasse**was the first author on the paper,
"Morphological heterogeneity among
corticogeniculate neurons in ferrets:
quantification and comparison with a
previous report in macaque monkeys."

Brain Awareness Campaign

Founded in 2013, the
University of Rochester Brain
Awareness Campaign (BAC)
is an outreach initiative with
the goal of spreading our
love for neuroscience and
advocating for brain research
and education. Our planning
committee consists of Alyssa
Kersey, Nicole Peltier, Carol
Jew, Heather Natola, Jessie



Hogestyn, Neal Shah, and Josh Hinkle, students in the Neuroscience and Brain and Cognitive Sciences departments. We invite and encourage all neuroscience community members to join us as volunteers.

To celebrate Brain Awareness Week 2018, we visited four elementary schools in the Rochester area to share our love for the brain with 470 students in grades 3-5. Our activities this year focused on teaching children about different aspects of the motor system. Students used electromyography to see the electricity in their arm muscles during voluntary movement. After being protected from a barrage of ping pong balls by a plexiglass board, students learned that our involuntary blinking reflex can be overcome when we realize that the approaching objects do not pose a threat. Our newest activity, mirror tracing, taught children that practice makes perfect through motor learning.

In February, we hosted our second annual Rochester Brain Bee, in

which ten students from five local high schools competed to show off their knowledge of the brain. Questions covered topics such as anatomy, development, perception, research methods, and diseases and disorders. Thanks to financial support from Barnes & Noble and the Rochester chapter of the Society for Neuroscience, our winner had the opportunity to compete at the National Brain Bee in Baltimore.



National Brain Bee winners

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Brain Awareness Campaign

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We continued our collaboration with the local Girl Scout council by inviting girls in grades 6-8 to become neuroscientists for a day. After discussing the scientific method and experimental design, the girls split into two groups to perform experiments in multi

vests.



This year, we have continued to interact with the community at large through various science expos. We participated in the Rochester Science Expo for the second year, as well as the University of Rochester's Family Science Day and St. John Fisher College's Science Exploration Day. We always enjoy the opportunity to teach people of all ages about the brain, and networking with teachers and other science communicators has helped us plan our future outreach efforts.



If you are interested in becoming involved with the Brain Awareness Campaign, you can contact us at URBrainAwareness@gmail.com and like us on Facebook at facebook.com/URBrainAwareness.

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Squid Season

Current students' volleyball team, "Squid Season" for the squid giant axon. (Back Row left to right: Brendan Whitelaw, Neal Shah, Josh Hinkle, Keshov Sharma. Front Row left to right: Kate Andersh, Emily Warner, Ally McHale, Allison Murphy





For six years, the Pre-doctoral Organization for the Neurosciences (PONS) has

served as a bridge for the neuroscience and neurology focused student groups at the University of Rochester. Over the last year, President Holly Beaulac, Outreach Coordinator Monique Mendes, Communications Director Garrick Salois, Treasurer Dawling Dionisio-Santos, and Junior Officers Emily Warner and Neal Shah have organized several events for the Neuro community.

PONS hosts a bi-monthly Luncheon Roundtable Series to expose pre-doctoral students to current topics and research opportunities in interdisciplinary neuroscience. This year's panel discussion topics and presenters included:

Human Experimental Therapeutics

- Erika Augustine, MD
- Robert Dworkin, PhD
- Gretchen Birbeck, MD/MPH

Glial Biology

- Margot Mayer-Pröschel, PhD
- Chris Pröschel, PhD
- Ania Majewska, PhD
- John Olschowka, PhD

Traumatic Brain Injury and Concussions

- Jeffrey Bazarian, MD/MPH
- Brian Blyth, MD

Modeling Sensory Processes and Dysfunctions

- Tania Pasternak, PhD
- Ed Lalor, PhD
- Krishnan Padmanabhan, PhD

Acquired Hearing Difficulties and Deafness

- Ross Maddox, PhD
- Patricia White, PhD,
- U-Cheng Leong, PhD

Hypoxia and Stroke

- Marc Halterman, MD/PhD
- G. Edward Vates, MD/PhD
- Ania Busza, MD/PhD.

In October 2017, PONS teamed up with the BCS & Neuroscience Undergraduate Council (BNUC), SIGN, and NSFG to host a Graduate/ Medical Student Panel for those interested in pursuing an advanced degree in Neuroscience or Neurology. About 20 undergraduate attendees asked questions of our panel of Neuroscience PhD, MD/PhD, and Neurology MD students currently enrolled at the University of Rochester's School of Medicine and Dentistry. Each panelist shared their individual journeys including performing undergraduate research, job shadowing/internships, and teaching/outreach opportunities. Topics discussed included strategies in determining the right program for one's interests, standing out as an applicant during interviews, and being productive while limiting stress while pursuing a doctorate.

PONS also provides relevant neuroscience education to community members of all ages and backgrounds. In December 2017, members were invited to discuss the brain and their own neuroscientific research with high school students in the UR Science and Technology Entry Program (STEP) – UP TO MEDICINE. Monique Mendes gave an introductory overview of the cell & molecular field and Shraddha Shah introduced students to systems-based research. PONS members also explained each of their own personal journeys from high school to graduate school and how they became captivated with neuroscience. Students broke into small groups for a quick brain anatomy lesson and to ask questions about the field.

All students interested in partaking in PONS or those with suggestions for new activities should visit our websites

http://blogs.rochester.edu/pons http://www.rochestersfn.org/pons or contact us at urmcpons@gmail.com.

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Kathleen Gates, American Heart Association Predoctoral Fellowship, Lung-brain coupling regulates neurovascular unit responses to stroke, (07/01/2018 – 06/30/2020)

Jessica Hogestyn, Agnes M. and George Messersmith Dissertation Fellowship, (07/01/2018 – 06/30/2019)

Monique Mendes, F99/K00, NINDS, NIH Blueprint Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (D-SPAN), The role of purinergic signaling in mediating the dynamics of microglia repopulation following depletion in the adult cortex in vivo, (07/31/2018-06/30/2024)

Patrick Miller-Rhodes, F31, NIH Ruth L. Kirschstein National Research Service Award, Regulation of Tissue Macrophage Immune Activation by Mafb, (09/16/2017 - 09/15/2019)

Rianne Stowell, F31, NIH Kirschstein National Research Service Award, Noradrenergic modulation of microglial dynamics and synaptic plasticity, (07/01/2018 – 06/30/2020)

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Fellowship Spotlight on Jessica Hogestyn Jessica, a PhD candidate in students in th

Jessica, a PhD candidate in the Neuroscience Graduate Program has been awarded a \$23,000 Messersmith Dissertation Fellowship for

2018-2019. The Messersmith Fellowship is a competitive one-year fellowship for

students in the pre-clinical departments of the School of Medicine and Dentistry or in Biology, Chemistry, Optics or Physics. Appropriate candidates have passed the qualifying exam and are in the process of writing their dissertations or are at least engaged in full-time research.



Fellowship Spotlight on Kathleen Gates

Kathleen has been awarded an American Heart
Association Predoctoral
Fellowship. This fellowship
is meant to enhance the

integrated research and clinical training of promising students who are matricu-

lated in pre-doctoral or clinical health professional degree training programs and who intend careers as scientists, physician-scientists or other clinician-scientists, or related careers aimed at improving global cardiovascular health.

Monique Mendes Award and Fellowship Recipient

Monique S. Mendes, a neuroscience Ph.D. student, is the first
University of Rochester Medical
Center (URMC) graduate student
to receive a prestigious diversity
award from the National Institute
of Neurological Disorders in Stroke
(NINDS). Mendes works in the
laboratory of Ania Majewska, Ph.D.
and studies the role that the brain's
immune cells play in development, learning,
and diseases like Autism.

Mendes has been awarded a F99/K00 NIH Blueprint Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (D-SPAN) fellowship from NINDS. The award was created to provide outstanding young neuroscientists from diverse backgrounds a pathway to develop independent research careers. Unlike traditional graduate student fellowships, this award provides research funding for six years, including dissertation research and mentored postdoctoral research career development. Monique was also awarded a prestigious Howard Hughes Medical Institute Gilliam Graduate Fellowship which she declines in order to accept the F99/ K00 award.

Read more: http://www. jamaicaobserver.com/careereducation/Neuroscience_ grad_student_from_ Jamaica_awarded_diversity_ fellowship_138386?profile=





Monique was also selected by the Society for Neuroscience's Professional Development Committee and its Diversity in Neuroscience Subcommittee as a Neuroscience Scholars Program Fellow.

This program is designed to provide underrepresented graduate students

in neuroscience with career development and networking opportunities to help them with success going into the future.

The program provides the following benefits:

- A mentoring team consisting of a senior mentor and a member of the Diversity in Neuroscience Subcommittee. The team will discuss a fellow's research, career plans, and overall experience.
- Two years of complimentary SfN membership.
- A travel award to attend the SfN annual meeting each fall during the two-year program.
- Up to \$1500 in enrichment funds to support allowed professional development activities.

$SU_{(i)}B$

Communicating research with 3 minutes and 1 slide

At a time when it is more important than ever for scientists to communicate clearly with the public, Kathryn-Mary Wakim was one of eight University PhD students and postdoc finalists to summarize her research with just three minutes and a single slide.

44 students initially entered the competition

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NGP Student Musician

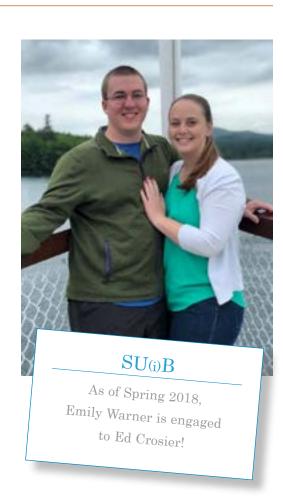
July 12th, 2018 the Brighton Symphony Orchestra, including Neuroscience Graduate Student **Monique Mendes**, performed with the Rochester Philharmonic Orchestra at the Kodak Hall at Eastman Theatre. The RPO held Summer Side by Side Sessions where amature musicians rehearsed with professionals. Monique's stand partner was Patricia Sunwoo, a critically acclaimed violoinist who joined the RPO in 2003.

The rehearsal included: Rimsky-Korsakov - Mlada: Processioin of the Nobles, Dvorak-Symphony No. 9, "New World" (2nd and 4th movements), and Williams- Raiders of the Lost Ark: Raider's March.



Monique Mendes and Patricia Sunwoo

SU(i)B As of May 2018, Kathleen Gates and Patrick Miller-Rhodes are engaged!



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Alumni Updates

Mark Basham (Class of 1997) just finished the first year of his second term as chair of the Department of Psychology and Neuroscience at Regis University. He has also been the director of the Neuroscience Program for the last 10 years.

Maria Diehl (Class of 2012) recently published a first-author paper in eLife: https://elifesciences.org/articles/34657

Russ Ferland (Class of 2000) received a promotion to Professor and Vice Chair, Department of Neuroscience and Experimental Therapeutics, Albany Medical College.

Bernie Gee (Class of 2009) will be tenured as well as promoted to Associate Professor at Western Connecticut State University as of September 2018.

Simantini Ghosh (Class of 2013) is now Assistant Professor, Department of Psychology, Ashoka University, Sonipat, India

Brandon Harvey (Class of 2002) is a tenure-track investigator at NIDA, HIH

Mary Maida (Class of 2002) retains adjunct positions at both the University of Rochester School of Medicine and Dentistry and the Simon School (Entrepreneurship). She is the co-author of the Netter Atlas of Neuroscience textbook and the Netter Neuroscience Coloring Book. She also recently sold a medical device company that she founded in 2006 and is happily moving into retirement mode.

Sarah Matousek (Class of 2010) welcomed her third child in October of 2017! August Emmanuel. She is in her third year at Day Health Strategies where she provides consulting services to healthcare organizations all over New England. She joined Ariadne Labs at Harvard School of Public Health, where she serves as an affiliate faculty member and continues to teach at Boston University as an adjunct faculty member.

Evan McConnell (Class of 2017) just completed his 3rd year of medical school and is planning to apply to radiology residency to pursue a career in Neuroradiology.

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Allison Murphy, Emily Warner, and Kate Andersh (1 to r) at the Rochester Spring Wine Festival

Alumni Updates

(continued from previous page)

Renee Miller (Class of 2004) is the newly named Director of University of Rochester Undergraduate Neuroscience Program.

Michael Pesavento (Class of 2010) recently started a new role as a Staff Data Scientist for Cruise Automation, where he is focusing on statistical analysis of features generated from autonomous cars. His current project is creating a model of how the environment and passengers expect the car to drive to inform engineering development and create a ride experience that is indistinguishable from a human driver.

Laurie Robak (Class of 2009) became faculty at Baylor College of Medicine in the department of Molecular and Human Genetics; was Awarded a American Academy of Neurology Clinical Research Training Fellowship in Parkinson's Disease; and welcomed Henry Dale Smith, July 3rd, 2017.

Rebecca Sappington (Class of 2004) was awarded tenure and a promotion to Associate Professor in the Department of Ophthalmology and Visual Sciences and the Department of Pharmacology at Vanderbilt University School of Medicine.

Nathan Anthony Smith (Class of 2013) (pictured to the right), as of December 2017, is a new Principal Investigator for the Center for Neuroscience Research, Children's National Health System. He is also Assistant

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In February 2018, Aleta Steevens and Holly Beaulac attended the Association for Research in Otolaryngology (ARO) conference in San Diego.

Professor of Pediatrics & Pharmacology and Physiology, George Washington University School of Medicine and Health Sciences and is the Winner 2018 Children's National President's Award for Innovative Research.

Allison Stickles (Class of 2008) earned her MD/PhD. Currently she is a resident in Internal Medicine and Pediatrics at University of Cincinnati and Cincinnati Children's Hospital.

Michael Wu (Class of 2012) has started a Critical Care fellowship at the University of California San Francisco to focus on ICU medicine. His wife, Lauren, recently had a baby girl to keep them busy as well.

Laura Yunes-Medina (Class of 2017) recently started to work at Eli Lilly and Company as a publication writer.



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Holly Beaulac became a student representative for the SMD's Committee for Graduate Studies

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The Art of Science: Grad Student Finds Inspiration in Images of the Brain

The complex biology, networks, and symphony of signals that underlie human cognition are a font of endless mystery and wonder to those who study it. For Rianne Stowell, a graduate student in the lab of URMC neuroscientist Ania Majewska, Ph.D., these questions are also a source of artistic inspiration which has led to the creation of striking paintings of the brain's inner workings.

Stowell's most recent creation (above) is based on research which has recently been published in the journal Developmental Neurobiologyand sheds new light on the role that immune cells called microglia play in wiring and rewiring the connections between nerve cells.

Stowell recalls wanting to pursue a career in art as far back as elementary school in Pennsylvania and while she carried that desire with her to Moravian College, she also began to explore other academic fields. Her interest in biology and psychology attracted her to a degree in neuroscience and that decision ultimately led her to the University of Rochester School of Medicine and Dentistry, where she is in now in her fourth year of graduate studies in pursuit of her Ph.D. in neuroscience.

Read More: https://www.urmc.rochester.edu/ research/blog/january-2018/the-art-of-sciencegrad-student-finds-inspiration.aspx

SU(i)B

Spotlight on Rianne Stowell

Rianne Stowell, a fourth year NGP graduate student, has been awarded a two year NIH

Fellowship award (F31) for her project titled, "Noradrenergic modulation of microglial dynamics and synaptic plasticity". Rianne works in the laboratory of Ania Majewska, Ph.D.

The purpose of the Kirschstein National Research Service Award program is to enable promising predoctoral students with potential to develop into a productive, independent research scientists, to obtain mentored research training while conducting dissertation research.

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First Name	Last Name	Defense Date	Current Position, Location
Aleta	Steevens	4/16/2018	Postdoctoral Fellow with Dr. Walter Low, University of Minnesota, Minneapolis MN
Rebecca	Rausch	11/3/2017	Senior Scientist, EyeCRO, Ann Arbor MI
Natola	Heather	10/3/2017	Postdoctoral Fellow, Biomedical Genetics, University of Rochester, Rochester NY
John	O'Donnell	7/17/2017	Postdoctoral Fellow, Neurology Dept., Washington University, Saint Louis MO
Matt	Cavanaugh	7/17/2017	Postdoctoral Fellow with Dr. Steve Feldon, Dept. of Ophthalmology, University of Rochester, Rochester NY
Laura	Yunes-Medina	6/16/2017	Postdoctoral Fellow, Indiana University School of Medicine; Publication Writer at Eli Lilly and Company, Indianapolis IN
Xiaowei	Wang	4/17/2017	Postdoctoral Fellow with Dr. Maiken Nedergaard, University of Rochester, Rochester NY
Evan	McConnell	4/12/2017	Medical Student, Medicine, University of Rochester, Rochester NY
Nguyen	Mai	4/10/2017	Medical Student, Medicine, University of Rochester, Rochester NY
Stephanie	Syc-Mazurek	3/27/2017	Medical Student, Medicine, University of Rochester, Rochester NY
Berkeley	Fahrenthold	3/20/2017	Postdoctoral Fellow, Ophthalmology, University of Rochester, Rochester NY
Kelli	Fagan	1/23/2017	Data Scientist, Blue Cross Blue Shield, Rochester NY
Julianne	Feola	1/17/2017	Regulatory Specialist, Masonic Cancer Center, University of Michigan, Ann Arbor MI
Shiona	Biswas	9/28/2016	Postdoctoral Associate, Dept. of Ophthalmology, University of Rochester, Rochester NY
Jennifer	Stripay	7/25/2016	Postdoctoral Fellow, Dept. of Tumor Cell Biology, St. Jude's Children Hospital, Memphis TN
Ryan	Dawes	7/18/2016	Scientist 1, Vertex Pharmaceuticals, Boston MA
Rebecca	Lowery	7/7/2016	Postdoctoral Fellow, with Dr. Ania Majewska, University of Rochester, Rochester NY
Brianna	Sleezer	5/20/2016	Postdoctoral Fellow, Brain & Cognitive Science, University of Rochester, Rochester NY
Christina	Cloninger	4/7/2016	Scientist, Exponent, Menlo Park CA
Grayson	Sipe	2/19/2016	Postdoctoral Fellow, Brain & Cognitive Science, MIT, Cambridge MA

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Fatima	Rivera-Escalera	11/2/2015	Postdoctoral Fellow, Neuroscience, University of Rochester, Rochester NY
Adam	Pallus	7/1/2015	Postdoctoral Fellow, Genome Sciences, University of Washington, St. Louis MO
Wei	Sun	6/29/2015	Postdoctoral Fellow, NIMH, Bethesda MD
Adrianne	Chesser	6/10/2015	Resident, Allina Health, Internal Medicine, St. Paul, MN
Susanne	Pritchard Pallo	5/19/2015	Public Relations Assistant, University of Rochester, Rochester NY
Revathi	Balasubramanian	11/7/2014	Postdoctoral Research Scientist, Ophthalmology, Eye Institute, Columbia University, New York NY
Helen	Wei	6/24/2014	General Surgery Residency Program, Dept. of Surgery, Rutgers New Jersey Medical School, Newark NJ
Imran	Punekar	6/19/2014	Postdoctoral Associate, Plastic Surgery, University of Rochester, Rochester NY
Irina	Statnikova	4/14/2014	Medical Student, Medicine, University of Rochester, Rochester NY
Michele	Saul	4/7/2014	Adjunct Assistant Professor, University of Rochester; Visiting Assistant Professor, St. John Fisher College, Rochester NY
Simantini	Ghosh	12/12/13	Assistant Professor, Dept. of Psychology, Ashoka University, Sonipat India
Kimberly	Fernandes	11/4/2013	Medical Writer, VirtualScopics Inc., Rochester NY
Danielle	DeCampo	11/1/2013	Pediatrics, Johns Hopkins Neurosurgery, Baltimore MD
Anasuya	Das	7/19/2013	Data Scientist, Memorial Sloan Kettering Cancer Center, New York, NY
Nathan	Smith	6/24/2013	Principal Investigator. Assistant Professor of Pediatrics and of Pharmacology and Physiology at Children's National Health System and George Washington University School of Medicine and Health Sciences, Washington DC
Daniel	Marker	4/17/2013	Resident, Pathology, University of Pittsburgh, Pittsburgh PA
Veena	Ganeshan	4/11/2013	Senior lab Engineer, Dept. of Biomedical Engineering, Rochester NY
Danny	Rogers	3/29/2013	Resident Physician, Child Neurology, University of New Mexico, Albuquerque NM

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Philip	Rappold	12/20/2012	Resident, Urology, University of Rochester, Rochester NY
Sarah	Allen (McConnell)	12/18/2012	Assistant Professor, Neuroscience, University of Rochester, Rochester NY
Maria	Diehl	11/7/2012	Postdoctoral Fellow, Psychiatry, University of Puerto Rico, San Juan PR
Michael	Wu	9/8/2012	Resident Physician, Dept. of Anesthesiology, University of California San Francisco, San Francisco CA
Katherine	Selzler	6/25/2012	Associate Consultant for Scientific Communications, Eli Lilly and Company, Indianapolis IN
Ethan	Winkler	6/18/2012	Resident, Neurological Surgery, University of California, San Francisco, San Francisco CA
Youngsun	Cho	6/11/2012	Resident, Psychiatry, Yale School of Medicine, New Haven CT
Sally	Duarte	4/13/2012	Postdoctoral Fellow, Max Planck Florida Institute for Neuroscience, Jupiter FL
Crystal	McClain	3/2/2012	Postdoctoral Research Associate, University of Colorado Anschutz Campus, Aurora CO
Zhuoxun	Chen	3/8/2012	Student, University of Maryland School of Dentistry, Baltimore MD
Cory	Hussar	2/20/2012	Senior Medical Writer, Curry Rockefeller Group, LLC, Tarrytown NY
Kathleen	McAvoy	11/11/2011	Postdoctoral Fellow with Dr. Amar Fahay, Harvard Stem Cell Institute, Cambridge MA
Michael	Jacob	6/16/2011	Resident in Psychiatry, University of California, San Francisco, San Francisco CA
Susan	Lee	4/4/2011	Resident Physician, Child Neurology, Cincinnati Children's Hospital Medical Center, Cincinnati OH
Stephen	Raiker	12/8/2010	Research Fellow with Dr. Thomas Schwarz, Children's Hospital Boston, Boston MA
Arnulfo	Torres-Pena	8/17/2010	Medical Writer at Freelancer, /Medical Communications
Michael	Moravan	8/13/2010	Assistant Professor, Radiation Oncology Dept., Duke University and VA Hospital, Durham NC
Sarah	Matousek (Bliss)	6/9/2010	Senior Analyst/Consultant at Day Health Strategies & Affiliate Faculty Member, Harvard School of Public Health; Adjunct Faculty Member, Boston University; Boston MA

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William	Mowrey	6/1/2010	Postdoctoral Fellow, with Dr. Anthony Leonardo, Janelia Research Campus, Ashburn VA
Marina	Dobreva (Stoilova)	4/16/2010	Bulgaria
Deborah	Ryan	4/9/2010	IGPN
Michael	Pesavento	4/6/2010	Staff Data Scientist, Cruise Automation, San Francisco CA
I-Chen	Yu	1/28/2010	Research Fellow, Indiana University School of Medicine, Indianapolis IN
Lynette	Desouza	1/25/2010	Post-doctoral Fellow, Tata Institute of Fundamental Research; in 2013 was a stay at home mom
Yuriy	Shapovalov	12/22/2009	Preventive Cardiology Fellow, Heart Research Division of Cardiology, Dept. of Medicine, University of Rochester, Rochester NY
Bernard	Gee	8/13/2009	Dept. of Psychology, Western Connecticut State University, Danbury CT
Qi	Cui	8/11/2009	Assistant Professor of Ophthalmology, University of Pennsylvania, Philadelphia PA
Sarita	Kishore	7/31/2009	Ophthalmologist, Boise Veterans Affair Medical Center, Boise ID
Carolyn	Tyler	6/17/2009	Medical Science Liaison, Otsuka America Pharmaceutical, Inc., Rockville MD
Aaron	Cecala	06/15/09	Associate Professor of Physiology, Elizabethtown College, Elizabethtown PA
Ditte	Lovatt	5/27/2009	Associate Principal Scientist, Merck, Philadelphia PA
Kyung Hwa	Lee	3/16/2009	Postdoctoral Fellow with Dr. Itzhak Mano, City College of New York, New York NY
Laurie	Robak	2009	Faculty, Dept. of Molecular and Human Genetics, Baylor College of Medicine, Houston TX
Onanong (Annie)	Chivatakarn	2009	Postdoctoral Fellow, Salk Institute, La Jolla CA
Yanan	Guo	12/1/2008	Associate Director, Research and Development, Biocytogen, Beijing China
Verginia	Cuzon (Carlson)	10/17/2008	NIH, Bethesda, MD
Grace	Vangeison (Johnston)	9/19/2008	Vice President of Marketing, Sartorius, Boston, MA

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Irah	King	7/25/2008	Assistant Professor, Dept. of Microbiology and Immunology, McGill University, Montreal Quebec
Annie	Chivatakarn	7/24/2008	Senior Research Associate, Gene Expression Lab, The Salk Institute for Biological Studies, San Diego, CA
Glenn	Schneider	6/19/2008	Otolaryngology Specialist, University of Rochester, Rochester NY
Nancy Ann	Oberheim Bush	6/18/2008	Assistant Professor, Neurological Surgery, University of California, San Francisco, San Francisco CA
Allison	Stickles	4/21/2008	Resident Physician, Internal medicine, University of Cincinnati and Cincinnati Children's Hospital, Cincinnati OH
Meghan	Riley	4/17/2008	IRB Analyst III, The Children's Hospital of Philadelphia, Philadelphia PA
Yasser	Elshatory	4/9/2008	Eye Surgeons Associates, Bettendorf IA
Erin	Johnson (Venkatesh)	3/28/2008	Research Technologist, Boston Children's Hospital, Boston MA
Xiaoyan	Lin	8/14/2007	Associate Director WuXi AppTec , Shanghai City China
Pushkar	Joshi	8/2/2007	Adjunct Professor, Dept. of Biology, Stanford University, Stanford CA
Ling	Pan	8/1/2007	Research Scientist, Picower Institute for Learning & Memory, Cambridge MA
Karthik	Venkatesh	6/28/2007	Senior Medical Writer, MMS Holdings Inc., Canton MI
Matthew	Bellizzi	6/4/2007	Senior Instructor in Neurology, Division of Neuroimmunology, University of Rochester, Rochester NY
Beth-Ann	Shanker	5/9/2007	Colon & Rectal Surgery, St. Joseph Mercy Health System, Ann Arbor MI
Solomon	Shaftel	4/23/2007	Ophthalmic plastic and reconstructive surgeon, Medical Practice, San Diego CA
Xiaohai	Wang	1/3/2007	Senior Research Biologist, Dept. of Neuropharmacology, Merck Research Laboratories, Philadelphia PA
Jason	Hamilton	11/7/2006	Novartis, New York NY
Daniel	Zaksas	10/3/2006	Scientific VP, Dudnyk, Horsham PA

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Ziye	Sui	9/26/2006	Analyst at Care Capital, Princeton NJ; VP at Lepu Medical Technology, Beijing City China
Charles	Wuertzer	7/25/2006	Dept. of Biology, Monroe Community College, Rochester NY
Roberto	Fernandez- Romero	6/13/2006	Depts. of Neurology, Psychiatry, Brain & Spine, University of Tennessee Medical Center, Knoxville TN
Jill	Weimer	9/16/2005	Associate Director & Scientist, Children Health Research Center, Sanford Research, Sioux Falls SD
Kuei-Cheng	Lim	7/8/2005	Neurologist, St. Luke's University Health Network, Philadelphia PA
Chiayu	Chiu	6/27/2005	Associate Research Scientist, Dept. of Neurobiology, Yale University, New Haven CT
Min	Zhu	6/22/2005	New England Neurological Associates, PC., Lawrence MA
Zhiyong	Yang	6/6/2005	Surgical Intern, UC San Diego Health System, San Diego CA
(Kitty) Chia- Wen	Wu	4/13/2005	Pipeline & Portfolio Planning at Genentech, San Francisco CA
Zhenhua	Wu	3/15/2005	Principal Scientist at Merck, Philadelphia PA
Renee	Miller	12/21/2004	Director of the University of Rochester Undergraduate Neuroscience Program, University of Rochester NY
Rebecca	Sappington	6/4/2004	Associate Professor, Dept. of Ophthalmology & Visual Sciences and the Dept. of Pharmacology, Vanderbilt University School of Medicine, Nashville TN
Michael	Froehler	12/18/2003	Vanderbilt Neurosurgery, Nashville TN
Michael	Hanna	12/9/2003	Assistant Professor, Dept. of Biological & Environmental Sciences, Texas A&M University-Commerce, Commerce TX
Luisa	Scott	8/14/2003	Research Associate, Dept. of Neuroscience, Waggoner Center for Alcohol & Addiction Research, The University of Texas at Austin, Austin TX
Patricia	Sheridan	8/1/2003	Study Director, Metabolon, Inc.; Adjunct Assistant Professor, Nutrition- Ops, University of North Carolina at Chapel Hill, Chapel Hill NC
Seth	Perry	7/24/2003	

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Adnan	Siddiqui	4/23/2003	Assistant Professor of Neurosurgery, Assistant Professor of Radiology, University at Buffalo Neurosurgery, State University of New York, Buffalo NY
Brandon	Harvey	11/15/2002	Investigator, NIDA NIH, Bethesda MD
Andrew	Custer	9/25/2002	Lathrop Gage, Esq, Boston MA
David	Logan	8/5/2002	Principal Computational Scientist at Pfizer, Cambridge MA
Marc	Dubin	6/18/2002	Assistant Professor in Clinical Psychiatry at Weill Cornell Medicine and an Assistant Attending Psychiatrist at New York Presbyterian Hospital, New York NY
Mary	Maida	3/5/2002	Adjunct positions at both the University of Rochester School of Medicine and Dentistry & the Simon School of Business (Entrepreneurship), Rochester NY
Deon	Harvey (Sanchez)	10/19/2001	Librarian; Director and Manager at Harvey Family, Baltimore County Public Library, Baltimore MA
Mona	Thiruchelvam	10/18/2001	
Elizabeth	Kriscenski-Perry	8/3/2001	Assistant Professor, Biomedical Sciences, College of Health Sciences and Technology, Rochester Institute of Technology, Rochester NY
Tina	Huang	8/1/2001	LifeLong EnerJoy!, http://lifelongenerjoy.com/dr- tina-enerjoy, Seattle WA
Jay	Nierenberg	2001	
Randall	Hayes	2001	Founder of Agnosia Media, LLC; Freelance Columnist, Orson Scott Card's Intergalactic Medicine Show; Specialist Roster, Fullbright Commission; Greensboro/Winston Salem NC
Nikolaus	McFarland	2001	Assistant Professor; Acting Chief of Movement Disorders Division, Dept. of Neurology, University of Florida College of Medicine, Gainesville FL
Bonie	Ward	10/12/2000	
Mitchell	Kaplan	8/14/2000	
Anna	Yermakova Allen	6/20/2000	Ophthalmologist, Albany NY
Tim	Mhyre	5/1/2000	Team Manager, Office of Sponsored Programs, Washington State University, Pullman WA

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William	Page	3/27/2000	Research Assistant Professor, Dept. of Neurology, University of Rochester, Rochester NY
Russell (Russ)	Ferland Jr.	3/22/2000	Professor and Vice Chair, Dept. of Neuroscience and Experimental Therapeutics, Albany Medical College, Albany NY
Jess	DiGiorgianni	12/21/1999	Licensed Professional Counsellor, LCMHC, Williston VT
Sheila	Kelly	11/5/1999	Internist, Webster NY
Scott	Ng-Evans	10/21/1999	Electronics and Material Engineering Shop, Psychiatry and Behavioral Sciences, University of Washington, Seattle WA
Stephanos	Kyrkanides	3/3/1999	Associate Dean for Research & Faculty Development Professor & Chair, Dept. of Orthodontics and Pediatric Dentistry, Stony Brook University, Stony Brook NY
Tracy	Callahan	2/5/1999	Community Lab Director, Biogen, Boston MA
Michael	Gordon	7/28/1998	Lecturer, Communication Sciences, College of Nursing and Health Sciences, The University of Vermont, Burlington VT
Caroline	Little	7/13/1998	Clinical Advisor and Board Member, PsychOnline Telepsychiatry; A Place of Refuge Ministries, Sacramento CA
Deborah	New	5/22/1998	New Smiles Orthodontics, Rochester NY
Jay	McLaughlin	4/9/1998	Associate Professor, Pharmacodynamics, University of Florida, Gainesville FL
James	Greene	2/20/1998	Associate Professor, Dept. of Neurology; Director Neurohospitalist Program, Emory University, Atlanta GA
Alice	Roberts	12/17/1997	Dermatopathologist, Richfield Dermatopathology Laboratory, Cincinnati OH
Derek	Choi-Lundberg	7/8/1997	Senior Lecturer, Division of Medicine and Paramedicine, School of Medicine, University of Tasmania, Australia
Mark	Basham	6/5/1997	Director of the Neuroscience Program & Chair of the Dept. of Psychology, Regis University, Denver CO
Xiaofeng	Qi	11/25/1996	Programmer, Optometry, Indiana University, Bloomington IN

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Gary	Samoriski	7/12/1996	Associate Vice President at Allergan R&D, New York NY
Colin	Combs	5/1/1996	Professor, Biomedical Sciences, School of Medicine and Health Sciences, University of North Dakota, Grand Forks ND
Julianne	Chang	5/1/1996	Professor, Mount St. Mary's University, Los Angeles CA
Wu	Zhou	4/29/1996	Dept. of Otolaryngology and Communicative Sciences, University of Mississippi Medical Center, Jackson MS
Kumi	Nagamoto- Combs	4/23/1996	Assistant Professor, Dept. of Pathology, University of North Dakota School of Medicine & Health Services, Grand Forks ND
Jay	Gibson	1/29/1996	Associate Professor, Southwestern Medical Center, Dept. of Neuroscience, Dallas TX
San	Ouyang	11/29/1995	
Stephen	Breneman	8/3/1995	Associate Professor, Dept. of Anesthesiology & Perioperative Medicine, University of Rochester, Rochester NY
James	Way-Young Chen	6/2/1995	Associate Professor, Neurology, University of California, Los Angeles CA
Lisa	Feulner	5/1/1995	Advanced eye Care & Aesthetics, Bel Air MD
Kevin	Kinney	4/24/1995	Professor, Dept. of Biology, Depauw University, Greencastle IN
Michael	Burek	3/8/1995	
Daniel	Selski	1/27/1995	Assistant Professor, Dept. of Biology, Central Washington University, Ellensburg WA
Diane	Lawrence	9/30/1994	Program Official in the Division of AIDS, National Institute of Allergy and Infectious Diseases, Rockville MD
Joseph	Colombo	7/20/1994	Owner, Ansar Medical Technologies Inc., Philadelphia PA
Tsung-i	Peng	6/28/1994	Associate Professor, Dept. of Neurology, Chang Gung University, Taiwan
Willard	Wilson	6/27/1994	Director of Research, Mainstay Medical, Minneapolis MN
Boyu	Zhao	5/1/1994	
Virginia	Winn	5/1/1994	
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David	DiLoreto	5/1/1994	Professor, Dept. of Ophthalmology, University of Rochester, Rochester NY
Margaret	Veruki	4/8/1994	Professor, Dept. of Biomedicine, University of Bergen, Bergen Norway
Sandra	Aamodt	1/21/1994	Science Writer, Winters CA
Eileen	Lynd-Balta	5/5/1993	Associate Provost and Professor, St. John Fisher College, Rochester NY
Thomas	Wengenack	7/25/1991	
Laura	Sim-Selley	7/9/1991	Professor, Dept. of Pharmacology and Toxicology, Virginia Commonwealth University, Richmond VA
Susan	Sullivan	6/25/1991	Senior VP of Clinical Operations at Upstate NY Transplant Services, Buffalo NY
Christine	Checkosky	6/7/1991	Empire Vision, Syracuse NY
Stephen	Gucker	4/5/1991	Retired Patent Examiner, United States Patent and Trademark Office, Washington DC
Dana	Selley	3/25/1991	Professor, Dept. of Pharmacology and Toxicology, Virginia Commonwealth University, Richmond VA
Tracy	Romano	2/6/1991	Vice President of Biological Research / Chief Scientist, Mystic Aquarium, Mystic CT
James	Maxwell	1/24/1991	
Claire	Gavin	1/21/1991	Water Testing Director at Clean Up Sound and Harbors, Stonington CT
Farida	Sohrabji	10/5/1990	Professor, Dept. of Neuroscience and Experimental Therapeutics, Texas A&M Health Science Center, Bryan TX
Danru	Zhang	7/6/1990	
David	Berlove	2/5/1990	Chief Consultant, Berlove Pharmacology Consulting, Boston MA
Lucinda	Hemmick	10/14/1989	Science Teacher, Longwood High School, Middle Island NY
Kurt	Ackerman	9/21/1989	Associate Professor of Psychiatry, University of Pittsburgh, Pittsburgh PA
Rajesh	Miranda	2/27/1989	Professor, Dept. of Neuroscience and Experimental Therapeutics, Texas A&M Health Science Center, Bryan TX
Guoying	Bing	8/4/1988	Professor, Neuroscience, University of Kentucky College of Medicine, Lexington KY

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John	Kruse	1990	Physician specializing in Psychiatry, San Francisco
Sonia	Carlson	10/21/1987	
Harold	Lesser	7/14/1987	Professor, Dept. of Neurology, University of Rochester, Rochester NY
Frederick	Monsma	5/1/1987	Senior Vice President, Scientific Operations, The New York Stem Cell Foundation, New York NY
Jeffrey	Levine	1987	
James	Herman	10/20/1986	Professor, Department of Pharmacology and Systems Physiology; Director of the Stress Neurobiology Laboratory, University of Cincinnati, Cincinnati OH
Mark	Fitzsimmons	6/11/1985	Editor-in-chief, Annual Reviews, Palo Alto, CA
Webster	Pilcher	1983	The Ernest & Thelma Del Monte Distinguished Professor of Neuromedicine, Professor and Chairman of Dept. of Neurosurgery, University of Rochester, Rochester NY
James	Reese	11/3/1980	Health Science Administrator, Federal Drug Administration, Washington DC
Ronaldo	Riso	4/12/1979	
David	Amaral	5/1/1977	Professor of Psychiatry at the University of California, Davis
Robert (Bob)	Stoughton		Research Administrator, Montgomery County Human Services & Planning Development Dept., University of Dayton, Dayton OH
Michael	Levine		Professor, Psychiatry and Biobehavioral Sciences, Brain Research Institute, University of California, Los Angeles CA
Fred	Kim		
David	Amaral	1977	University of California Distinguished Professor, Dept. of Psychiatry and Behavioral Sciences and Center for Neuroscience, University of California Davis MIND Institute, Sacramento CA

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