

NSP: Preparing the Next Generation of Neuroscience Leaders 2023



Welcome to the NSP Preparing the Next Generation of Neuroscience Leaders 2023 conference. For the next three days, Scholars and Alumni of SfN's Neuroscience Scholars Program (NSP) will come together to discuss identity and leadership, changing culture, grant writing, and more, while creating additional opportunities for professional development, networking, and community building.

The NSP exemplifies SfN's mission to provide educational resources, networking opportunities, and career development tools for neuroscientists from diverse backgrounds. More than 1,200 NSP Alumni have completed their training and are making significant contributions to the field.

Connecting early-, mid-, and senior-career scientists in-person is key to expanding the reach and impact of SfN's programming throughout the year. We hope you enjoy this meeting and use the next three days and beyond to engage with colleagues, share experiences, and develop new abilities to enhance your leadership skills to prepare and serve as part of the next generation of neuroscientists.

Gina Poe and Eduardo Rosa-Molinar

Co-Directors, Neuroscience Scholars Program

### AGENDA

#### Times listed in Eastern Daylight Time -EDT.

Wednesday, August 16th, 2023		
Time	Activity	
1–1:10 p.m.	Welcome and Introductions [Grand Ballroom] Pls: Gina Poe, Eduardo Rosa-Molina	
1:10–2:10 p.m.	Panel 1: Incorporating Culture and Id [Grand Ballroom] Tracey Hermanstyne, Matt Kelly, Adri	
2:10–2:30 p.m.	Q&A – Panel 1: Incorporating Culture [Grand Ballroom] Tracey Hermanstyne, Matt Kelly, Adri	
2:30–3:30 p.m.	Panel 2: Changing Culture in an Insti [Grand Ballroom] Omar Koita, Vernon Ruffin, Shannon	
3:30–3:40 p.m.	Break	
3:40–4 p.m.	Q&A – Panel 2: Changing Culture in a [Grand Ballroom] Omar Koita, Vernon Ruffin, Shannon	
4–5 p.m.	Panel 3: Large Data Project Consorti A Consortium of Scientists Globally 1 [Grand Ballroom] Fiona Ducotterd, Debra Murray	
5–5:20 p.m.	Q&A – Panel 3: Large Data Project C A Consortium of Scientists Globally T [Grand Ballroom] Fiona Ducotterd, Debra Murray	
5:20–5:30 p.m.	Day 1 Summary/What to Expect in D [Grand Ballroom] Pls: Gina Poe, Eduardo Rosa-Molina	
5:30–6 p.m.	Interviews Pre-selected volunteers	
6–7 p.m.	NextGen 2023 Reception [National A]	
Thursday, August 17t	n, 2023	
8–9 a.m.	Breakfast [Ballroom Foyer and Grand Ballroom]	
9–10:30 a.m.	Funding Opportunities with NIH [Grand Ballroom] Representatives from NEI, NIGMS, N	
10:30–10:40 a.m.	Break	
10:40–12:30 p.m.	Grant Writing Session [Grand Ballroom] Rick McGee	

entity Into Leadership Goals and Leadership Styles
enne Santiago
and Identity Into Leadership Goals and Leadership Styles
enne Santiago
ution
Vassell
n Institution
Vassell
um Efforts: How Do You Bring
proartium Efforto: How Do You Pring
ogether
ay 2
A, NIMH, NINDS

Thursday, August 17th, 2023 (continued)				
12:30–1 p.m.	Track 1: Lunch	12:30–1:30 p.m.	Track 2: Lunch	
1–5:15 p.m.	Track 1: Grant Writing Coaching Groups (pre-reg required) [National Ballroom A/B] Anne Etgen, Victoria Luine, Brandi Mattson, Eduardo Rosa-Molinar	1:30–3:15 p.m.	Track 2: Funding Opportunities and Strategies: Part 1 and Q&A [Grand Ballroom] Paige Cooper Byas, Joyonna Gamble-George, Michelle Jones-London, Tim Mosca, Daniel Pham, Jacob Shreckengost	
		3:15–3:25 p.m.	Break	
		3:25–4:55 p.m.	Track 2: Funding Opportunities and Strategies: Part 2 and Q&A [Grand Ballroom] Paige Cooper Byas, Joyonna Gamble-George, Michelle Jones-London, Tim Mosca, Daniel Pham, Jacob Shreckengost	
5:15–5:30 p.m.	Day 2 Summary/What To Expect in Day 3 [Grand Ballroom] Pls: Gina Poe, Eduardo Rosa-Molinar			
5:15–6 p.m.	Interviews Pre-selected volunteers			

Friday, August 18th, 2023		
Time	Activity	
8–9 a.m.	Breakfast [Ballroom Foyer and Grand Ballroom]	
9–10 a.m.	Panel 4: Leading a Department or University [Grand Ballroom] Tom Carew, Eddie Castaneda, Laura O'Dell	
10–10:30 a.m.	Q&A – Panel 4: Leading a Department or University [Grand Ballroom] Tom Carew, Eddie Castaneda, Laura O'Dell	
10:30–11:30 a.m.	Panel 5: Compliance and Standards in the Context of Leadership [Grand Ballroom] Fiona Ducotterd, Eduardo Rosa-Molinar	
11:30 a.m.–Noon	Q&A – Panel 5: Compliance and Standards in the Context of Leadership [Grand Ballroom] Fiona Ducotterd, Eduardo Rosa-Molinar	
Noon–1 p.m.	Lunch	
1–2 p.m.	Panel 6: Leadership Beyond Your Institution [Grand Ballroom] Frederick Gregory, Alison Hall, Tracey Hermanstyne	
2–2:30 p.m.	Panel 6: Leadership Beyond Your Institution [Grand Ballroom] Frederick Gregory, Alison Hall, Tracey Hermanstyne	
2:30–2:45 p.m.	Closing Remarks/NSP Photo [Grand Ballroom] PIs: Gina Poe, Eduardo Rosa-Molinar	
2:45–4 p.m.	Interviews Pre-selected volunteers	

#### Gina Poe, PhD

Gina Poe has been working since 1995 on the mechanisms through which sleep serves memory consolidation and restructuring. Dr. Poe is a southern California native who graduated from Stanford University then worked for two

post-baccalaureate years at the VA researching Air Force Test Pilots' brainwave signatures under high-G maneuvers. She then earned her PhD in Basic Sleep in the Neuroscience Interdepartmental Program at UCLA under the guidance of Ronald Harper then moved to the University of Arizona for her postdoctoral studies with Carol Barnes and Bruce McNaughtons looking at graceful degradation of hippocampal function in aged rats as well as hippocampal coding in a 3-D maze navigated in the 1998 space shuttle mission. She brought these multiunit teachings to answer a burning question of whether REM sleep were for remembering or forgetting and found that activity of neurons during REM sleep is consistent both with the consolidation of novel memories and the elimination of already consolidated memories from the hippocampus, readying the associative memory network for new learning the next day. Moving first to Washington State University then to the University of Michigan before joining UCLA in 2016, Poe has over 80 undergraduates, 6 graduate students, and 6 postdoctoral scholars, and has served in university faculty governance as well as leading 5 different programs designed to diversify the neuroscience workforce and increase representation of people of the global majority in the STEM fields. At UCLA she continues research and teaching and Directs the COMPASS-Life Sciences and BRI-SURE programs and co-Directs the MARC-U\*STAR program. Nationally she is course director of the Marine Biological Lab's SPINES course and co-Directs the Society for Neuroscience's NSP program which earned the nation's highest mentoring honor in 2018. These programs have served over 600 PhD level trainees over the years.

# Eduardo Rosa-Molinar, PhD



Eduardo Rosa-Molinar, PhD, is the Director of the Microscopy and Analytical Imaging Research Resource Core Laboratory and a tenured Professor of Pharmacology and Toxicology and Bi-Campus Neuroscience Graduate Program. He holds

additional affiliations/appointments as a Professor in the Bioengineering Graduate Program (Bioimaging Track); School of Engineering and in the Department of Anatomy and Cell Biology at the University of Kansas and the University of Kansas Medical Center, respectively. He also serves as the Executive Director of the Emerging Imaging Technologies and Applications Developing Shared Resource affiliated with The University of Kansas Cancer Center. Until June 2015, he was a tenured Professor of Integrative Anatomy and Neurobiology, University of Puerto Rico-Rio Piedras, San Juan, Puerto Rico. He holds memberships and fellowships in numerous societies and serves or served in various leadership positions, committees, and boards, including American Association for the Advancement of Science (Fellow), Royal Microscopical Society (Fellow), Optical Society (Senior Member) Institute of Electrical and Electronics Engineers (Senior Member), Histochemical Society (Past-President), Society for Neuroscience, Association of Biomolecular Facilities, and the Federation of American Societies of Experimental Biology (Past Board Member). He also serves or served as associate editor and or as an editorial board member for IEEE Access, PEERJ Computer Science, Biotechnic and Histochemistry, Integrative and Comparative Biology, and Journal of Experimental Zoology Part B: Molecular and Developmental Evolution.

#### Thomas J. Carew, PhD



Thomas J. Carew has explored the cellular and molecular mechanisms of memory in the model system Aplysia californica. Early in his career, he was a member of the team in Eric Kandel's laboratory that provided the first evidence for

both long-term memory and associative learning in Aplysia. These discoveries gave rise to independent behavioral, synaptic, and molecular studies in the Carew laboratory first at Yale, then at the University of California, Irvine, and finally at New York University, where he served as Dean of the Faculty of Arts

and Science for 8 years. In this collective work, he developed several lines of research that provide mechanistic insights into learning and memory. For example, with his research team, he was able to dissociate several different types of memory on both behavioral and synaptic levels, showing, for example, in contrast to a prevailing theoretical view, that it is possible to induce both intermediate-term and longterm synaptic changes underlying memory in the absence of any short-term changes. He also identified three mechanistically distinct phases of synaptic facilitation in the central nervous system, each of which predicted the existence and molecular features of distinct temporal phases of behavioral memory. The predominant focus of his work for the last several years has centered on two basic themes: first, the critical importance of pattern and timing in memory formation; and, second, the essential roles that growth factors play in the induction of long-term memories. In exploring both of these themes, he has been able to identify the contribution of a number of specific molecular cascades, as well as their interactions, in the induction and consolidation of different forms of memory. The overarching goal of his research has been the forging of direct connections between specific synaptic and molecular events to bona fide instances of memory expressed behaviorally.

#### Eddie Castaneda, PhD



Dr. Castañeda has been interested in mechanisms regulating the augmentation of dopamine release in two research lines about compensation. First, neuronal compensation in Parkinson's disease appears to trigger

enhanced dopamine release to "normalize" dopamine function rescue behavior. Second, "sensitization" refers to enhanced dopamine release in response to repeated stimulant drug exposure that manifests motor symptomatology and drug craving. Dr. Castañeda has participated in community, academic, state, and federal programs to foster diversity, inclusion, equity and justice. A sampling of his career contributions includes service as an Executive Committee member of the Arizona Association of Chicanos for Higher Education, membership on steering committees for the American Psychological Association Diversity Program in Neuroscience, the Society for Neuroscience Minority Neuroscience Fellowship Program, Texas Consortium in Behavioral

Neuroscience, and others. He has spent 20 years as Course Faculty with the Marine Biology Laboratory Summer Program In Neuroscience, Excellence & Success (SPINES) course, including two years as a Co-Director (2015–16). As an administrator researcher his passion to serve in educating and training students of diverse ethnic, educational and socioeconomic backgrounds has sought to create multidisciplinary research opportunities that foster a sense of relevance to the non-traditional student of science. He was Co-Director of the NIH/NIMHD P20 UTEP Hispanic Health Disparities Research Center (2011-2016), and PI for the NIH/NIDA R24 UTEP Vulnerability Issues In Drug Abuse (VIDA) researchtraining program (2008–2013). Dr. Castañeda served as Chair of the UTEP Department of Psychology from 2007–2013 and from 2017–2020.

## Paige Cooper Byas, PhD



Paige Cooper Byas currently works at Burroughs Wellcome Fund (BWF) as a Program Officer. Her portfolio is focused on Biomedical & Reproductive Sciences as well as managing the individual and institutional awards that support

Physician Scientist development. She joined BWF following several years of serving as the Director of BioCoRE (Biosciences Collaborative for Research Engagement) Program at Duke University. In this role she was responsible for designing innovative and practical programming for both the academic and professional development needs of her PhD and undergraduate scholars. Dr. Cooper Byas completed her BS in Biochemistry as a MARC scholar at Spelman College. She then went on to complete a PhD in Molecular Cell Biology at Washington University in St. Louis. Her doctoral research focused on determining molecular mechanisms by which genetic mutations in the ATP sensitive potassium (KATP) channel, identified in patients with Cantu Syndrome, altered channel activity. She did postdoctoral research at the University of Colorado-Anschutz Medical Campus which focused on placental nutrienttransport to the fetus. Prior to joiningBioCoRE, Dr. Cooper Byas helped lead recruitment and evaluation for the National Research Mentoring Network (NRMN), a NIH funded STEM diversity initiative.

## Fiona Ducotterd, PhD



Fiona is Chief Scientific Officer at the Alzheimer's Research UK Drug Discovery Institute at UCL and a trained neuroscientist with pharmaceutical industry expertise in neurology drug discovery and global leadership experience in the UK, Japan,

China and the USA. At UCL, she leads a team of multidisciplinary scientists discovering new medicines for neurodegenerative diseases. Fiona has served on the SfN Professional Development Committee, is a past chair of the C-WIN Women in Neuroscience subcommittee and now sits on the SfN Finance Committee and is a reviewer/mentor for the NSP. Fiona has a BSc in Molecular Biology from the University of Edinburgh and a PhD in Neuroscience from the University of Newcastle and is mum to 2 year old daughter, Isla and fur baby, Yuna.

#### Anne Etgen, PhD



Anne Etgen is professor emerita in the Departments of Neuroscience, Psychiatry and Behavioral Sciences, Pediatrics, and Obstetrics and Gynecology and Women's Health at Albert Einstein College of Medicine. Her research focused on

determining the cellular and molecular mechanisms by which the ovarian steroid hormones regulate brain function. In addition to being an internationally recognized leader in the field of neuroendocrinology, she dedicated much of her career to fostering the recruitment and advancement of women and underrepresented minorities in science. She has an impressive record of mentoring female graduate students and postdoctoral fellows who went on to establish successful careers in research, academics, and the pharmaceutical industry. At the national level, she has worked on multiple programs aimed at promoting diversity and advancing women in neuroscience. She earned her PhD in 1979 from the University of California, Irvine.

# Joyonna Gamble-George, PhD



Dr. Joyonna Gamble-George is a former Early Career Policy Ambassador (ECPA) and alumna of the Neuroscience Scholars Program for SfN. Currently, she is a Postdoctoral Fellow at New York University (NYU) and a Visiting Research Faculty in

the Department of Social and Behavioral Sciences at Yale School of Public Health. Dr. Gamble-George studies at NYU how interactions between an individual's genes and their social environment contribute to mental health problems and other health risk behaviors in adolescents and adults using brain imaging and behavioral science methods. Previously, Dr. Gamble-George worked as a subject matter expert for the National Institutes of Health through the AAAS Science and Technology Policy Fellowship, where she was an advisor for doctors, psychologists, nurses, and other scientists across the United States that conduct research on chronic heart and lung diseases and mental health in people living with HIV. She was also an All of Us Biomedical Researcher Scholar at Baylor College of Medicine, where she used Python and R programming to evaluate opioid misuse and heart failure prevalence and genetic risk factors involved in inflammation in systemic lupus erythematosus (SLE) patients from the NIH All of Us Research Program.

Dr. Gamble-George received over 20 awards for her leadership, philanthropy, and dedication to science while fostering diversity. Given her considerable accomplishments, she was selected for the AAAS IF/THEN Ambassador program, which brings together women in different STEM careers to serve as high-profile role models for middle school girls. She recently received the National Institutes of Health Director's Award for her dedication and advancement of women's health research, workforce development, and health education. Dr. Gamble-George holds a Bachelor of Science in Biochemistry and Biology with Honors in Mathematics from Xavier University of Louisiana, a Master of Health Administration from the University of South Florida College of Public Health, and a Doctor of Philosophy in Neuroscience from Vanderbilt University. She completed postdoctoral training at the University of Florida, where her research focused on illicit drug effects on cell-cell communication in the human brain and animal models of HIV-1 infection. Her other research efforts concerned potential drug therapies for Alzheimer's disease, the molecular

and synaptic consequences of drug abuse and addiction, endocannabinoid signaling in affective disorder pathology using mouse models, and the biopsychosocial factors that contribute to substance addiction in people.

#### Frederick Gregory, PhD



Dr. Frederick D. Gregory is Chief of the Humans in Complex Systems Branch and Lead of the Humans in Complex Systems extramural research competency at DEVCOM Army Research Laboratory. As Branch Chief, he is Army's senior leader

responsible for multidisciplinary program objectives and priorities, program initiation and content, funding, and allocation of organizational resources to execute the Humans in Complex Systems Research portfolio. He leads a team of Senior Program Managers to address foundational research in support of U.S. Army Modernization Strategy and is focused on disruptive science and technology involving multidisciplinary non-medical approaches to understand and modify the potential of humans situated in and interacting within complex social, technological, and sociotechnical systems. As Extramural Competency Lead, he continually refines and articulates the Army's strategy for addressing the hardest scientific and technological questions for future Army capabilities in Humans in Complex Systems. Overall, he establishes the corporate strategy, manages risks and a complex portfolio of scientific opportunities focused on creating and directing scientific discoveries in the extramural scientific research community. Prior to this role, he was Program Manager for Neurophysiology of Cognition as well as for international Human Dimension at Army Research Office. During the international assignment, Dr. Gregory led two bilateral research collaborations with the British military that supported U.S. and U.K. academic teams focusing in Human-AI collaborative decisionmaking and neurotechnologies. Dr. Gregory has also served in multiple scientific advisory roles for NATO, DoD and Army special task forces and committees to develop new programs, evaluate various proposals, and lay out long-range plans in important and extensive programs. He received a B.S. in Biology from Morehouse College and a PhD in Neurobiology from UCLA. His dissertation research focused on the cellular mechanisms of exocytosis from the vestibular hair cell sensory ribbon synapse. He then completed post-doctoral training, first, as an IRACDA Postdoctoral Teaching and Research Fellow in Pharmacology at Emory University and then in Molecular Physiology

and Biophysics at the University of Iowa studying the biophysics of Cav1.3 Ca2+ channels and Ca2+ binding proteins. Prior to Army civilian service, he was Program Manager for a Department of Defense-funded initiative, the John H. Hopps Jr. Defense Research Scholars Program, and an Adjunct faculty member in Biology at Morehouse College. Most recently, he was a fellow of the Defense Ventures Program where he spent two months in an immersive training experience in venture capital with the firm New Enterprise Associates.

## Alison Hall, PhD

Dr. Hall is Professor of Neurology and Associate



Dean for Research Workforce Development at George Washington University School of Medicine and Health Sciences. She came to GW after an extensive faculty career at Case Western Reserve University School of Medicine where her

extramurally funded research focused on sensory neuron development and inflammatory pain. She has mentored scholars at many career levels, from high school to graduate students to medical residents to school teachers. Her senior management skills were honed as founding Associate Dean for Graduate Education to support PhD and MS programs. At CWRU she developed and won renewed NIH funding for a diversity-focused R25 short-term summer research program for medical and undergraduate students, and NIH R25 postbaccalaureate pre-PhD program. This broad perspective was tapped for national leadership roles including service on multiple NIH review groups, President of the Association for Neuroscience Departments and Programs, the Steering Committee of the GREAT committee of AAMC and election to both the Finance, and Government and Public Affairs committees of the Society of Neurosciences. She is recipient of numerous awards including the Kaiser Permanente Teaching Excellence Award, the Gender Equity Award from the American Medical Women's Association, YWCA Woman of Professional Excellence and 2004/5 Executive Leadership in Academic Medicine (ELAM) Program. Following this extensive faculty experience, Dr. Hall then served as Deputy Director of Training, Workforce Development and Diversity at NIGMS, where she led the overall assessment of the NIH-MARC. NIH-PREP and NIH-diversity supplement programs and won honors from the NIH Office of the Director for development of new materials on diversity. Her work in Extramural Research called for the creation of

additional "on ramps" to research careers for MD investigators and led development of research in residency funding opportunities. She joined GW in 2017 to enhance research training at an academic health center for students, residents and postdocs and junior faculty. This background provides extraordinary perspective on training and career development needs for the future biomedical workforce, and effective mechanisms to address this need.

# Tracey Hermanstyne, PhD

Dr. Tracey Hermanstyne is an Assistant Professor



of Developmental Biology at Washington University, St Louis School of Medicine. Her research interests lie in understanding the molecular and cellular mechanisms that underlie the functioning of the brain's clock which controls

circadian rhythms in physiology and behavior. She uses behavioral assays and molecular genetic strategies with electrophysiology, to continue to produce more insight into how the brain's clock functions in normal and pathophysiological conditions. In parallel to her research efforts, as the Assistant Dean of Academic Pathway Programs in the Office of Diversity, Equity & Inclusion, she leads efforts to promote racial equity in STEM education and training at Washington University. These efforts have focused primarily in four areas: the creation of a new office centralizing all pathway programs at the School of Medicine, overseeing the implementation of research exploration courses for first- and second-year undergrads from underrepresented backgrounds, leadership of the NIH-funded Initiative for Maximizing Student Development (IMSD) Program that seeks to increase the retention, recruitment, and graduation of minority PhD students in the Division of Biology and Biomedical Sciences PhD programs, and leadership of the Howard Hughes Medical Institute (HHMI) Driving Change Initiative team that seeks to re-sculpt undergraduate STEM curriculum to ensure racial equity in science. Dr. Hermanstyne received her Bachelors of Science in Biology from Howard University. She received her PhD in Neuroscience from the University of Maryland, Baltimore and completed her Postdoctoral work at Washington University, St. Louis School of Medicine where she joined as faculty in 2018. In her free time, she enjoys spending time with her mentees, and serves as a board member for two non-profit organizations, The Village 314, Inc. and

Rides N' School Supplies, Inc. Dr. Hermanstyne is also a proud member of Alpha Kappa Alpha Sorority, Inc., Gamma Omega Chapter.

#### Michelle Jones-London, PhD

Dr. Michelle D. Jones-London serves as Chief,



Office of Programs to Enhance Neuroscience Workforce Diversity (OPEN). In this position, she plays a critical role in guiding the Institute's diversity efforts and chairs the NINDS Diversity Working Group. Dr. Jones-London joined NINDS as a

Program Director in July, 2006. Dr. Jones-London earned her PhD in Neuroscience from the Department of Neuroscience and Anatomy at Pennsylvania State University College of Medicine. She then received postdoctoral training as a research fellow at University of Pennsylvania in the Department of Psychiatry. Dr. Jones-London came to the NIH in July 2004 as an Emerging Leader Fellow; she performed duties across the Department of Health and Human Services including the Center for Scientific Review, FDA Office of Women's Health Science Program, and the Immediate Office of the Secretary, Intergovernmental/ Tribal Affairs Office. Dr. Jones-London directs the diversity training and workforce development programs at NINDS which include Diversity and Re-Entry Supplements, Predoctoral Fellowships to Promote Diversity in Health-Related Research (F31), Career Development Awards to Promote Diversity (MOSAIC K99/R00 and K01) and Diversity Research Education Grants (R25) (including the Neuroscience Scholars Program with SfN). She also provides oversight for the Institute's diversity outreach initiatives at several other national scientific conferences. Her trans-NIH efforts include oversight for the NIH Blueprint ENDURE and DSPAN (F99/K00) programs, development of the BRAIN Initiative Diversity K99/R00, former Project Scientist for the NIH National Research Mentoring Network (NRMN) and part of the leadership team for NIH Faculty Institutional Recruitment for Sustainable Transformation (FIRST). Her research interests have focused on understanding monoaminergic neurotransmitter regulation and mechanisms of behavioral psychopharmacology in animal models of disorders such as ADHD, Tourettes Syndrome, and depression.

### Matt Kelley, PhD



Matt Kelley PhD is a Senior Scientist at Pfizer's Rare Disease Research Unit where he leads a team in rare neurology focused on gene therapy and small molecule drug discovery. Matt earned his B.S. in Neuroscience at UCLA, working in the group of

Dr. Istvan Mody on the role of the TRPC6 ion channel in epilepsy. He earned his PhD in Neuroscience at Tufts University studying with Dr. Stephen Moss, working on mechanisms of neuronal chloride regulation and mechanisms of epilepsy. Matt completed a postdoctoral fellowship at Amgen - neuroscience discovery, working in the group of Dr. Cen Xu on the mechanism of action of erenumab, FDA approved in 2018 for migraine. Prior to his current role at Pfizer, Matt held a discovery research position at Voyager Therapeutics working in AAV gene therapy for neurological disorders, where he contributed to a patent filing on a gene therapy for neuropathic pain. Matt participated in the Society for Neuroscience Scholars Program from 2012–2015 and was awarded a 2018 MIT Impact Fellowship and 2016 NIH Ruth L. Kirschstein NRSA Individual Predoctoral Fellowship (F31) from the National Institute of Neurological Disorders and Stroke.

#### Omar Koita



Omar Koita, a Maryland native, is a 5th-year graduate student at the Vollum Institute located at the Oregon Health and Science University. There he works under the tutelage of John T. Williams, studying the mechanisms of opioid tolerance in the

paraventricular nucleus of the thalamus (PVT). Prior to joining graduate school, Omar was a post-baccalaureate with Dr. Mario Penzo at the National of Institute Mental Health.He received his Bachelor's degree from the University of Maryland, Baltimore County. Omar has aspirations of continuing in academia and one day running his own research program.

## Victoria Luine, PhD



Dr. Victoria Luine is Distinguished Professor Emeritus at Hunter College of CUNY and was previously a faculty member at the Rockefeller University. As a neuroendocrinologist, her research investigates the influence of gonadal and adrenal

steroids on cognition and behavior as well as possible neurochemical and morphological underpinnings of the effects. The influence of drugs and alcohol, endocrine disruptors, and other environmental agents as well as aging on neural function is also investigated. She was the recipient of research grants from NIH, NSF and private foundations and the PI/PD of the Hunter College RISE and SCORE programs, which enhance progression of underrepresented minorities in education and research, respectively. She was the first recipient of the Bernice Grafstein Mentoring Award from the Society for Neuroscience. She is a Grant Coach for NSP, Leadership Alliance, the NRMN and serves on NIH training grant review committees.

#### Rick McGee, PhD



Dr. Rick McGee is the Associate Dean for Professional Development at Northwestern University Feinberg School of Medicine. In that role, his primary responsibility is to support the development of the independent research

programs of early career faculty. His career path to creating this unique role began with 20 years of laboratory research in basic neuroscience and cellular pharmacology. His career then evolved to designing and leading research training at multiple levels, including postbaccalaureate research, PhD and MD/PhD training, and advanced research training for clinicians. During this time, he began developing new group coaching models to complement research mentoring. The most impactful of these new group models are the grant writing coaching groups which are the primary focus of his current position. He leads groups of 3–5 faculty in real-time proposal writing and feedback during weekly meetings of 90 minutes. In this way he teaches grant writing as a complex skill to be approached from a teaching and learning perspective rather than simply relying on the highly variable attention paid to it by research mentors. After leaving bench research he became very interested in actually studying how young scientists develop and

differentiate using sophisticated qualitative research methods and established social science theories and models. A strong theme throughout his career has been in diversity efforts related to both gender and racial/ ethnic equality. Today, in addition to his professional development role, he leads a team of social science and education researchers in the NIH-funded National Longitudinal Study of Your Life Scientists. They are also following the outcomes of PhD students who took part in a novel career coaching experiment, The Academy for Future Science Faculty. Dr. McGee is deeply involved with new approaches to promoting effective mentoring relationships and grant writing skills through the National Research Mentoring Network (NRMN). He is a co-Investigator of NIH-funded randomized trials studying Culturally Aware Mentorship, and four different variations of grant writing coaching groups.

#### Tim Mosca, PhD



Dr. Tim Mosca is an Associate Professor of Neuroscience at Thomas Jefferson University in Philadelphia, PA USA where his lab uses Drosophila to understand the principles of synaptic organization. He uses he/him pronouns and received

his B.S. and M.S. degrees from Yale University in 2003 working with Haig Keshishian on electrical activity at synaptic contacts. In 2003, he moved to Harvard University and received his PhD in 2009, studying with Thomas Schwarz on nuclear import and synaptic development. From 2010–2016, he was a postdoctoral fellow at Stanford University, where he discovered the first role for the Teneurin proteins at the developing synapse and pioneered a quantitative system for studying central synaptic development in the fly brain. At Stanford, Dr. Mosca was awarded the best postdoctoral scholar award in 2012 and a K99/ R00 grant from the NIH in 2013. Since the opening of his independent lab at Thomas Jefferson University in 2017, Dr. Mosca has studied the roles of cell surface proteins in synapse maturation and organization of both peripheral and central synapses, explored the mechanisms that underlie synaptic development in central olfactory circuits, and worked to develop novel tools for cell-type specific analysis of synaptic connections in vivo. In recent years, the Mosca Lab has focused on studying how dysfunction in basic synaptic processes like maturation can influence the progression of and susceptibility to neurodegenerative diseases like Alzheimer's Disease. At Jefferson, the goal of the Mosca Lab is to provide an environment

where science of the highest calibre can be done; an environment where every member has the right to speak freely and be judged on the quality of their work and their character. Dr. Mosca and the Mosca lab are committed to training students, postdocs, and technicians so they can succeed in any scientific career. Dr. Mosca and the Mosca Lab have been continuously funded by the NIH since 2013 and were awarded the Alfred P. Sloan Fellowship in 2018, the Jefferson Dean's Transformational Science Award in 2018, and a Whitehall Foundation Fellowship in 2019. Since 2018. Dr. Mosca has worked with the Neuroscience Scholars Program for the Society for Neuroscience, participating in online content creation, webinars, and the meeting where he runs a table on "How to Set Up a Lab." Dr. Mosca is, most importantly, an educator, working tirelessly at Jefferson to improve graduate education, expand course offerings, elevate the level of discourse in education, and serving as the Course Director of the Cold Spring Harbor Laboratories Drosophila Neurobiology course. Dr. Mosca strives to create an inclusive environment in the lab and the classroom, so that all students may have a safe space that values tolerance, collaboration, truth, and support in the pursuit of outstanding science in which to learn and excel.

#### Debra Murray, PhD



Debra D. Murray, PhD, a leader in diversity and inclusion, mentoring, and research education, is a 2021 recipient of the Norton Rose Fulbright Faculty Excellence Award in Educational Leadership. As a MPI, she recently was awarded the All of Us Evenings

With Genetics Research Program from the NIH All of Us Research Program. Dr. Murray is Director of Education and Diversity Initiatives in the Human Genome Sequencing Center (HGSC), and an Associate Professor in the Molecular and Human Genetics Department and co-Director of the Office of Community Engagement and Diversity at Baylor College of Medicine (BCM). In this role, she focuses on faculty training and increasing diversity in the medical genetics' programs. She is a part of the Engagement, Communication, and Education (ECE) Team that provides community engagement research and activities for the Intellectual and Developmental Disabilities Research Center (IDDRC) and is co-PI on a PCORI "Building Capacity in Hispanic Serving Institutions for PCOR/CER focused on Mental Health Impacts of COVID-19".

## Laura O'Dell, PhD



Dr. O'Dell is a Professor and Associate Vice President for Research at The University of Texas at El Paso (UTEP). She received her PhD in Behavioral Neuroscience from Arizona State University. She then conducted post-doctoral training at The

Scripps Research Institute where she also served as a Staff Scientist. Dr. O'Dell has published over 80+ reports that have combined neurochemistry, molecular biology, and behavioral approaches to better understand the underlying neurobiology of substance use disorder. Her recent work at UTEP has focused on the mechanisms that promote nicotine use in vulnerable populations, including females, adolescents, and persons with diabetes. Her research program has been continuously funded by the National Institute on Drug Abuse and private organizations, such as the American Diabetes Association. Dr. O'Dell has a deep dedication to promoting young faculty and trainees who want to pursue a career in neuroscience, particularly those from minoritized backgrounds.

## Daniel Pham, PhD



Daniel Pham, PhD, is a director at the Milken Institute Center for Strategic Philanthropy. He utilizes his expertise in scientific research, neuroscience, science policy, communication, and advocacy to advise philanthropic partners on

opportunities to make the biggest impact in various fields of science and health. Pham is also a program director of Breakthrough Discoveries for Thriving with Bipolar Disorder, or BD2, a funder collaborative to accelerate bipolar disorder research and care. Prior to CSP, Pham worked in science advocacy and policy at the American Society for Biochemistry and Molecular Biology, as well as Research!America and Future of Research. Pham received his bachelor's degree in neuroscience from UCLA and a doctorate in neuroscience from Johns Hopkins University.

## Vernon Ruffin, PhD



Vernon A. Ruffin, PhD is an African American scientist and entrepreneur. He received his Bachelor's in Science in Biology from Virginia Union University (VUU) and his doctorate of philosophy in Neurophysiology from Howard

University College of Medicine-two Historically Black College and Universities (HBCUs). Dr. Ruffin has conducted research at Albert Einstein College of Medicine, University of California San Diego, Yale University College of Medicine, and Case Western Reserve University. Dr. Ruffin's research focuses on the regulation of pH in the mammalian brain. Driven by the need for diversity, equity, and inclusion in STEM research, Dr. Ruffin returned to VUU and joined the faculty in 2014. He teaches courses in biology and physiology and has previously taught ecology, embryology, writing in sciences, and research techniques among other natural science courses. Dr. Ruffin has trained both undergraduate and graduate students using research techniques which extend from his postdoctoral research. Dr. Vernon A. Ruffin is the Principal Investigator of the first biomedical research neuroscience laboratory at VUU- The VUU Protein Analysis Laboratory (VPAL). The basic science research conducted in the Ruffin NeuroLab examines the regulation of intracellular pH in the mammalian brain by the major acid/base transporter proteins. These proteins have recently been implicated in the regulation/coordination of neuronal excitability in hippocampal neurons. Dr. Vernon A. Ruffin is the CEO/ Principal Investigator of the Ruffin NeuroLab LLC, the first independent Minority Neuroscience/Physiology Training Program that focuses on Professional Development, and both Academic and Research Training for students interested in professional STEM careers. Dr. Ruffin has trained >50 minority students in STEM research. Dr. Ruffin created the 3, 2, 1... NeuroSymposium, an annual STEM celebration which highlights STEM excellence in academia and research.

#### Adrienne Santiago, PhD



I am a postdoctoral fellow in Dr. Rene Hen's lab at Columbia University Irving Medical Center. My long-term goal is to decipher the synaptic and circuit-level mechanisms that underlie behaviors that hallmark psychiatric illnesses and stress

resilience. As a research assistant, I worked with Drs. Victoria Arango and Maura Boldrini at Columbia University to investigate neurobiological differences in the hippocampus of subjects with treated vs untreated depression. As a graduate student in Dr. Chiye Aoki's lab at New York University, I received an F31 to study the impact of stress on inhibitory microcircuits during different stages of development in rodent models. First, I asked how early life adversity alters the circuitry of inhibitory interneurons in the amygdala to produce a heightened response to threat (Santiago et al., 2017; 2018). I then refocused my graduate work to ask how inhibitory interneurons of the prefrontal cortex mediate resilience to food restriction stress in adolescence. I used multiplexed chemogenetics to evaluate the function of corticostriatal vs dorsal raphe-projecting pyramidal cells, and used electron microscopy to evaluate inhibitory innervation of pyramidal cells. Our findings support our hypothesis that neural circuits in the prefrontal cortex are sensitive to food restriction in a way that promotes hyperactive running specifically under conditions of low food availability (Santiago et al., 2021; Du\*, Santiago\* et al., 2022; Aoki and Santiago 2022).

As a postdoctoral fellow mentored by Dr. Rene Hen and Dr. Wei-li Chang at Columbia University, I have investigated how early life adversity and electroconvulsive shock treatment modulate the microcircuitry of immature granule cells and the generalization of defensive behaviors in mice. I found that early life adversity produces a deficit in contextual fear discrimination, without impacting gross levels of doublecortin, a marker found in the dendrites of immature neurons. More recently, I have investigated how electroconvulsive shock modulates dentate gyrus circuitry and behavior. We discovered that mossy fiberlike axon sprouting in the dentate gyrus is increased by electroconvulsive shock and reduced by x-ray ablation of neurogenesis. To investigate this phenomenon further, I used electron microscopy to evaluate direct contacts between immature and mature granule cells in the dentate gyrus. In future experiments, I will use calcium imaging to assess how immature granule cells impact contextual remapping in granule neurons.

As a Latina scientist, my goal to lead the next generation of scientists is integrated with my commitment to build diversity in neuroscience. As an undergraduate at Wesleyan University, I assisted Dr. J. James Donady, program director of the Health Professions Partnership Initiative to provide underrepresented students access to research and clinical experiences. As a graduate student. I led neuroscience outreach for BioBus and the Lower East Side Girls Club, traveled with Dr. Aoki to the University of Puerto Rico to recruit students for our graduate program, and mentored two undergraduate students for NYU's Diversity Undergraduate Research Incubator. It is my long-term goal to direct a large-scale initiative to provide underrepresented students greater access to neuroscience research.

#### Jacob Shreckengost, PhD



Dr. Jacob Shreckengost is a Program Officer for the Spinal Cord Injury Research on the Translational Spectrum (SCIRTS) portfolio with the Craig H. Neilsen Foundation. He assists in the management of this portfolio throughout all

stages of the application and review process.Jacob received his undergraduate degree in Biology from the University of Chicago and then attended Emory University to pursue a PhD in Neuroscience, where his work focused on understanding sensory gating in mammalian spinal circuits. His post-doctoral research was split between Emory University and Spelman College, where he focused both on laboratory science and science teaching. Through his doctoral and post-doctoral research, Jacob developed expertise in cellular communication in the spinal cord. He has held faculty and administrative positions at Emory University, Syracuse University, Spelman College, and Georgia State University, where he was heavily involved in teaching, curriculum design, and program management. For the last 7 years, he has also been involved in the Emory Tibet Science teaching biology and neuroscience to Tibetan Buddhist monks and nuns in Southern India. When not in front of his computer, Jacob can be found enjoying time with his three dogs, Joule, Mimi, and Tigre, brewing beer, playing rugby, or rehearsing with his vocal band, Best to Burn.

## Shannon Vassell, PhD



Shannon Vassell is an accomplished professional serving as the Senior Program Officer for Inclusive Diversity with Equity, Access and Accountability (IDEAA) at the American Society for Microbiology (ASM), a

professional society composed of more than 30,000 scientists, educators and health professionals from around the world. In her role, Shannon collaborates with stakeholders across ASM's key departments and programs to support the organization's mission of promoting and advancing the microbial sciences by prioritizing and sustaining IDEAA within the field.Her prior experience as the Assistant Director for Diversity, Equity, and Inclusion at the Rollins School of Public Health (RSPH) at Emory University showcased her commitment to fostering an inclusive environment and amplifying underrepresented voices in the field. Additionally, her role as the Associate Coordinator for the Hubert H. Humphrey Fellowship Program at RSPH allowed her to facilitate transformative leadership and professional development opportunities for public health professionals from around the world. Shannon's passion for education and her experience as a school leader and educator in various K-12 and higher education settings, including private, public, charter, and international schools, have enriched her understanding of the importance of diversity and inclusivity in fostering equitable access to academic and professional opportunities.Shannon holds an undergraduate degree from The George Washington University and a Master of Education from the University of Pennsylvania. With her commitment to creating an inclusive and equitable environment within the microbial sciences. Shannon continues to drive transformative change and uplift diverse perspectives in pursuit of ASM's vision of promoting and advancing the microbial sciences.

SfN would like to thank the following NIH Program Officials for their support of the NSP at the NIH Funding Roundtables:

Michelle D. Jones-London, PhD, Chief Office of Programs to Enhance Neuroscience Workforce Diversity (OPEN) National Institute of Neurological Disorders and Stroke, NIH

Marguerite Matthews, PhD, Program Director Office of Programs to Enhance Neuroscience Workforce Diversity National Institute of Neurological Disorders and Stroke

Lauren E. Ullrich, PhD, Program Director Office of Programs to Enhance Neuroscience Workforce Diversity (OPEN) National Institute of Neurological Disorders and Stroke, NIH

Maria G. Carranza, PhD, NIA Training Officer Division of Extramural Activities (DEA) National Institute on Aging (NIH/NIA)

Jamie L. Lahvic, PhD, Program Officer Office of Strategic Extramural Programs (OSEP) National Institute on Aging (NIA/NIH)

**Neeraj Agarwal, PhD**, FARVO, Program Director of Training and Workforce Development National Eye Institute/NIH

Michael A. Sesma, PhD TWD/NIGMS/NIH

James Churchill, PhD, Office of the Director NIMH Training Team Co-Lead

Ashlee Van't Veer, PhD, Office of Research Training and Career Development Division of Neuroscience and Basic Behavioral Science National Institute of Mental Health

**Courtney R. Pinard, PhD**, Program Officer Office of Research Training and Career Development Division of Neuroscience and Basic Behavioral Science National Institute of Mental Health



National Institute of Neurological Disorders and Stroke

Chan Zuckerberg Initiative 🏵

The Neuroscience Scholars Program (NSP) is supported by the National Institute of Neurological Disorders and Stroke of the National Institutes of Health and the Chan Zuckerberg Initiative.

