



Neuroscience Training: Developing a Nimble and Versatile Workforce—
A Virtual Workshop Series

**Topic #4: Re-envisioning Postdoctoral Training in Neuroscience –
Workshop Moderators and Panelists**

February 16, 2021

Panelist Biographical Sketches

Adriana Bankston, Ph.D., is a Principal Legislative Analyst in the University of California (UC) Office of Federal Governmental Relations, where she serves as an advocate for UC with Congress, the Administration, and federal agencies. Prior to this position, Dr. Bankston was a Policy & Advocacy Fellow at The Society for Neuroscience (SfN), where she provided staff support for special and ongoing projects, including SfN's annual lobby event and the society's annual meeting. In addition to working at UC, Dr. Bankston serves as Co-Director of the Policy Taskforce at Future of Research (FoR), a non-profit organization that empowers early career scientists. She is also Chief Outreach Officer at the Journal of Science Policy and Governance (JSPG), a non-profit and interdisciplinary peer review publication serving as a vehicle for early career researchers to publish on science policy topics. More recently, Dr. Bankston became a Biomedical Workforce & Policy Research Investigator at the STEM Advocacy Institute (SAi), a think-tank building tools to expand pathways of access between science and society. Dr. Bankston obtained her Ph.D. in Biochemistry, Cell and Developmental Biology from Emory University and a Bachelor's in Biological Sciences from Clemson University.

Robert Bell, Ph.D., received his Ph.D. in Pathology studying the role of cerebral vascular dysfunction in Alzheimer's disease at the University of Rochester. He then completed an AHA funded postdoctoral fellowship in cardiovascular biology and held a Research Assistant Professor position in the Department of Neurosurgery at the University of Rochester Medical Center. He joined Pfizer's Neuroscience Research Unit in 2012 and built a preclinical research lab focused on vascular targets in central nervous system (CNS) disorders and drug delivery across the blood-brain barrier. In 2017, Dr. Bell joined the Rare Disease Research Unit where he leads a group focused on developing novel AAV-based gene therapies for the rare metabolic and neurological conditions. Dr. Bell has an interest in understanding molecular mechanisms that regulate AAV tissue biodistribution and intracellular trafficking.

Brielle Ferguson, Ph.D., received her degree in Neuroscience from Drexel University College of Medicine in 2017. While at Drexel, she characterized a circuit in the brain that was important in supporting working memory, the ability to hold information in mind and manipulate it to guide behavior. Currently, Brielle works as a postdoctoral researcher at Stanford University in the lab of Dr. John Huguenard. There, Dr. Ferguson's research involves exploring attention impairments in a genetic mouse model of absence epilepsy. Her overall research goals are to discover and better understand circuits in the brain that support cognition, and identify pathways for intervention in psychiatric diseases and neurological disorders with cognitive impairments. Outside of the lab, Brielle is a fierce diversity advocate, as evidenced by her roles as vice president of the Biomedical Graduate Minority Association at Drexel, Co-President of the Stanford Black Postdoc Association, and recently co-founding and serving



as Director of Programs for Black In Neuro, a grassroots organization that helps provide resources, build community, and increase visibility for Black scholars in neuroscience-related fields.

Ethan G. Hughes, Ph.D., is an Assistant Professor at the Department of Cell and Developmental Biology at University of Colorado School of Medicine. He earned his B.S. in Biology from George Washington University in 1999. He obtained his Ph.D. in Neuroscience from the University of Pennsylvania School of Medicine in 2009. As a Kirschstein-NRSA pre-doctoral fellow, he studied neuronal interactions and autoimmune synaptopathies in the laboratory of Rita J. Balice-Gordon. Dr. Hughes performed his postdoctoral studies at Johns Hopkins School of Medicine in the laboratory of Dwight E. Bergles as a Kirschstein-NRSA post-doctoral fellow. In the Bergles lab, Dr. Hughes studied oligodendrocyte lineage cells, focusing on their dynamics in the adult brain. In 2016, he joined the faculty at University of Colorado School of Medicine. Dr. Hughes is a Boettcher Investigator in the Webb-Waring Biomedical Research program. He is an awardee of a Whitehall Fellowship and the Marilyn Hilton Award for Innovation in MS Research from the Conrad N. Hilton Foundation. Katja

Stephen Korn, Ph.D., came to NINDS as Director of the Office of Training, Career Development and Workforce Diversity (now the Office of Training & Workforce Development) in January, 2006. He received his Ph.D. in Pharmacology from the University of North Carolina-Chapel Hill, and received postdoctoral training at NIH (as a PRAT Fellow of NIGMS) and at the Roche Institute of Molecular Biology (with financial support from NRSA postdoctoral fellowships). He then spent 15 years on the faculty of the University of Connecticut at Storrs, where he was a Full Professor. His area of scientific specialty is the molecular basis of ion channel gating and permeation, but he has also conducted electrophysiological and imaging research on calcium and pH transport/buffering, and synaptic transmission in the hippocampal slice. Dr. Korn oversees all NINDS institutional training grants and programs (T and K mechanism), many research education programs (R25), policy for all F and K mechanisms that are not targeted to diversity, as well as the loan repayment program and R15 Area Awards.

Carol Mason, Ph.D., is Professor of Pathology & Cell Biology, Neuroscience and Ophthalmology at the College of Physicians & Surgeons, and a member of the Mortimer B. Zuckerman Mind Brain Behavior Institute, at Columbia University. She works on visual system development. Dr. Mason is involved in training programs at Columbia including a NIH/NEI funded Vision Sciences Training Program, the Neurobiology & Behavior graduate program, and the Zuckerman trainee-led postdoctoral advisory committee. She is also Chair of Interschool Planning, focusing on interdisciplinary faculty recruitment and mentoring. Dr. Mason was President of the Society for Neuroscience 2013-2014, is a member of the National Academies of Medicine and Science, and is currently a Simons Foundation Senior Fellow.

Caleb McKinney, Ph.D., is an assistant professor in the Department of Rehabilitation Medicine, and assistant dean of Graduate and Postdoctoral Training & Development for Biomedical Graduate Education (BGE) at Georgetown University Medical Center (GUMC). He is committed to advocacy and career development for graduate students and postdocs. Dr. McKinney studies factors that govern career transitions, with a particular focus on designing and evaluating interventions that facilitate these transitions. Dr. McKinney leads the graduate and postdoctoral training and development portfolio for Biomedical Graduate Education, which includes Career Strategy and Professional Development, a



biomedical graduate career center that provides career advising and professional development programming for master students, Ph.D. students, and postdoctoral scholars. Furthermore, his administrative portfolio includes postdoctoral development, training grant support for institutional external funding mechanisms, and biomedical graduate student recruitment and external partnerships for strategic enrollment. He is also a member of the Board of Directors for the National Postdoctoral Association (NPA), where he serves as Finance Chair, Treasurer, and Board Liaison for Diversity, Equity, and Inclusion. Dr. McKinney graduated from Cornell University with a B.S. in Biology and a minor in Applied Economics and Management. He then completed his Ph.D. in microbiology from New York University, and a Master's in Professional Studies in Design Management and Communications from Georgetown University.

Ubadah Sabbagh, is a visual neuroscientist completing his doctoral training in the laboratory of Dr. Michael Fox at the Fralin Biomedical Research Institute at Virginia Tech. He immigrated to the United States and began his educational journey by attending a community college in Kansas City for three years before transferring to the University of Missouri – Kansas City, where he earned his bachelor's degree in biology. Ubadah's current work at Virginia Tech is aimed at understanding how we make sense of the visual world around us, with a particular interest in studying the connections between the retina and brain. Using a range of molecular and cellular techniques, single nucleus RNA sequencing, and trans-synaptic viruses, Ubadah is mapping the circuitry and molecular architecture in brain areas that receive visual information from the eye. In summer 2021, Ubadah will be joining the laboratory of Dr. Guoping Feng at the McGovern Institute at MIT as a postdoctoral fellow. Outside of the lab, Ubadah is heavily involved in science outreach, advocacy, and policy. He is committed to empowering marginalized scholars in science and increasing engagement between scientists, lawmakers, and the general public. Ubadah has written extensively on topics at the intersection of science and policy, with articles published in the Washington Post, Scientific American, and other popular press. His contributions have been recognized with numerous awards including the Neuroscience Scholars Fellowship from the Society for Neuroscience, the Ben Barres Fellowship from Cold Spring Harbor Laboratory and the Grass Foundation, the NIH DSPAN F99/K00 award, and the Young Investigator award from the American Society for Neurochemistry. He was also recently named to the 2021 Forbes 30 Under 30 list, which recognizes entrepreneurs, scientists, and activists meaningfully impacting their industries. Ubadah's long-term career goal is to lead his own independent research program at an R1 university studying how sensory information is transformed into behavior in the mammalian brain.

Leslie B Vosshall, Ph.D., is a molecular neurobiologist who studies how behaviors emerge from the integration of sensory input with internal physiological states. Dr. Vosshall is the Robin Chemers Neustein Professor, Head of the Laboratory of Neurogenetics and Behavior, and Director of the Kavli Neural Systems Institute at The Rockefeller University. She has been an investigator of the Howard Hughes Medical Institute since 2008. Vosshall is known for her pioneering work on the genetic basis of chemosensory behavior in insects, particularly disease-vectoring mosquitoes. Her notable contributions to science include the discovery of the insect odorant receptors, and the elucidation of general principles of their function, expression, and the connectivity of the sensory neurons that express them to primary processing centers in the brain. Her research program is aimed at understanding the molecular neurobiology of host-seeking and blood-feeding in mosquitoes that spread dangerous infectious diseases. She is a member of the board of bioRxiv, and is a proponent of pre-prints and open science, as well as a strong supporter of initiatives to increase diversity in STEM. Dr. Vosshall received



an A.B. in Biochemistry from Columbia University in 1987 and a Ph.D. from The Rockefeller University in 1993 working with Michael Young. Following postdoctoral work at Columbia University in the laboratory of Richard Axel, she joined the Rockefeller faculty in 2000. She is the recipient of the 2008 Lawrence C. Katz Prize from Duke University, the 2010 DART/NYU Biotechnology Award, the 2011 Gill Young Investigator Award, the 2020 National Academy of Sciences Pradel Research Award, and the co-recipient of the 2020 Alden W. Spencer Award with Kristin Scott. Dr. Voss hall is an elected fellow of the American Association for the Advancement of Science, and was elected to the National Academy of Sciences in 2015.

Brittany Williams, Ph.D., received her Ph.D. in Neuroscience at the University of Iowa under the mentorship of Dr. Amy Lee. As a graduate student, her research focused on understanding the roles of voltage-gated calcium channels in the brain and retina. Dr. Williams utilized several techniques including electrophysiology and molecular biology to elucidate how missense mutations in these calcium channels contributes to pathophysiology, such as the retinal deficits contributing to vision loss. Her research allowed her to be competitive for a number of grants/fellowships, and recognitions, such as a perfect score on a NIH Ruth L. Kirschstein National Research Service Award, a Ramon D. Buckley graduate student scholarship, and several press articles. Dr. Williams is currently a postdoctoral fellow at the University of North Carolina at Chapel Hill under the tutelage of Dr. Benjamin Philpot, where she received an NIH postdoctoral training fellowship and support through the Burroughs Wellcome Postdoctoral Enrichment Program. As a postdoctoral fellow, she is applying her previous expertise and developing new skills to understand the pathophysiology and to develop treatments for two genetic disorders using preclinical mouse models. While seemingly different, Dr. Williams' two lines of research are united in that they focus on neurological disorders caused by known underlying genetic mutations, thus giving me a genetic and molecular toehold to understand underlying pathophysiology and to develop therapeutics. First, her work aims to understand how the overexpression of UBE3A impacts neurodevelopment and contributes to the manifestation of autism spectrum disorder (ASD) and associated epilepsy. Second, Dr. Williams is building upon her previous training in the retina to study a rare form of retinitis pigmentosa (a form of vision impairment) and to help develop a CRISPR-Cas9 base editing strategy to potentially fix the missense mutations underlying the retinal dysfunction. Her overall goals are to not only better understand (mechanistically) how such disorders arise, but to also identify novel therapeutic strategies to correct and/or prevent genetic disorders such as syndromic forms of ASD or blindness.