APARNA SHAH, PHD

Postdoctoral Fellow
Email: ashah69@jhmi.edu
Website: aparnashah.science

Department of Neuroscience
Johns Hopkins University
725 N Wolfe Street
Baltimore, MD 21205

EDUCATION

PhD **Pharmacology (Neuroscience Track)** **2014**
UT Health San Antonio, TX, USA

MS **Life Sciences (Specialization: Neurobiology)** **2007**
Sophia College for Women, University of Mumbai, India

BS **Life Sciences and Biochemistry (Double Major)** **2005**
St. Xavier's College, University of Mumbai, India
Graduated with Honors

TEACHING EXPERIENCE

Courses

Anatomy of Scientific Error **2020**
Guest Lecturer, R^3 Program Courses, Johns Hopkins Bloomberg School of Public Health, Baltimore MD
Class Size: 18

- Led an interactive online session on *Reproducibility: The Impact of the Open Science Movement*

Introduction to Research Literature **2020**
Guest Lecturer, New York Institute of Technology, Long Island, NY
Class Size: 5

- Led an interactive online session on *Scientific Writing*

Understanding Parkinson's Through the Lens of Neuroscience **2020**
Co-Instructor, Baltimore Underground Science Space, Baltimore MD
Class Size: 13

- Developed content and activities for an online course open to a general audience

Genes to Society: Nervous Systems and Special Senses Labs **2020**
Co-Instructor, Johns Hopkins University School of Medicine, Baltimore, MD
Class Size: 25

- Led *Neuroanatomy, General and Special Sensory & Motor System labs* (**online** via Zoom). The course involved a flipped classroom design
- Each synchronous session began with a short quiz based on the content assigned for asynchronous learning, followed by a review of the content, as well as team-based exercises and case solving in breakout rooms

Psychopharmacology **2018**
Teaching-as-Research Fellow, Johns Hopkins University, Baltimore MD
Class Size: 75

- Review sessions often involve revisiting lecture material where instructors have to choose between going over the course content superficially or emphasizing key topics. Additionally, it can be challenging to make these sessions interactive with large class sizes. As a Teaching-as-Research Fellow, I addressed this challenge by designing and employing a clicker-based activity, called the *Defining Features Matrix*, during a mid-course review session. This activity was fast-paced, comprehensive, not 'teaching to the test', and engaged all students in the class.

Biochemistry of Gene Expression **2016**
Co-Instructor, Goucher College, Center for Natural Sciences, Baltimore, MD
Class Size: 13

- Prepared content for and led three class sessions on *Post-Transcriptional Gene Regulation (Parts I and II)* and *How to Read a Scientific Paper*
- Led four journal club-style paper discussions that were central to each unit of the course
- Developed homework assignments, assessments, quizzes and exams. Graded all assignments and exams
- Held weekly office hours

Human Learning and Memory **2016**
Guest Lecturer, Goucher College, Baltimore MD
Class Size: 17

- Prepared content for and led a class session on *Classical Conditioning*
- Developed assessments and a novel comic strip-based active learning exercise

Medical Neuroscience Discussion Group **2015**
Instructor, University of Maryland School of Medicine, Baltimore, MD
Class Size: 13

- Led a discussion group over four sessions for first year medical students titled *Parkinson's disease – a focus on non-motor symptoms*

Workshops Designed and Conducted

Reproducibility for Everyone (Online) **2020**
Evolution Community Resources for Early Career Researchers, Society for the Study of Evolution

Active Learning – Tools and Activities to Engage Your Students **2019**
Johns Hopkins Teaching Academy, Baltimore MD

Active Learning Workshop for Faculty Members **2019**
Neuroscience Department, Johns Hopkins University School of Medicine, Baltimore, MD

Reproducibility for Everyone Professional Development Workshop **2019**
Society for Neuroscience Annual Meeting, Chicago, IL

How to Critically Read Scientific Literature **2019**
Summer Undergraduate Lunch Series
Neuroscience Department, Johns Hopkins University School of Medicine, Baltimore, MD

Drosofun (Drosophila Functional Genomics) **2007**
Sophia College for Women, Mumbai University, India

Zoological Microtechniques **2006**
Sophia College for Women, Mumbai University, India

Students Mentored (Trained students to design experiments, conduct research, analyze and interpret data, critically evaluate primary literature, write scientific reports and present their data in talk or poster formats)

Doctoral Students

Matilde Castro	2019
Lionel Rodriguez	2017
Haishan Wu	2013 – 2014

Undergraduate Students

Xianyi Jia	2020
Shannon Gavin*	2019
Madhura Shah	2017 – 2018
Adiel Hernandez	2017
Richard Ramirez-Garcia	2016 – 2017
Ta-Chung Morris Mou	2015 – 2017
Haram Joo	2016
Rebecca Zhang	2016
Gayathri Muthukumar	2015
Marisa DeGuzman	2014
Jonathan Chemello	2013
Mohona Sadhu	2012
Hanna Yousuf	2010

High School Students

Micah Frier	2016
Madeline Gonzales Morales	2011

*received the Dean's Undergraduate Research Award

RESEARCH EXPERIENCE

Johns Hopkins University, Baltimore, MD, USA **2015 – Present**
Postdoctoral Fellow
Research Advisor: Jay Baraban
Research Focus: Roles of a microRNA-degrading enzyme in psychiatric disorders and obesity

University of Maryland, Baltimore, MD, USA **2014 – 2015**
Postdoctoral Fellow
Research Advisor: Brian Mathur
Research Focus: Role of serotonin in L-DOPA-induced dyskinesia in a mouse model of Parkinson's disease using *ex vivo* electrophysiology and behavior

UT Health San Antonio, TX, USA **2008 – 2014**
Graduate Student
Research Advisor: Alan Frazer
Dissertation Title: Mechanisms underlying the antidepressant and anxiolytic effects of vagal nerve stimulation (VNS): comparison with desipramine

National Centre for Biological Sciences, Bengaluru, India **2007 – 2008**
Junior Research Fellow
Research Advisor: Mitradas Panicker
Research Focus: Intracellular trafficking of serotonin (5-HT)2A receptors

Sophia College for Women, University of Mumbai, India **2005 – 2007**
Masters Student
Research Advisor: M. C. Arunan
Thesis Title: Regenerating brain of earthworm as a model system to study the restoration of monoaminergic neurons in adult animals

St. Xavier's College, University of Mumbai, India **2003 – 2004**
Undergraduate Honors Student
Research Advisor: Sheela Donde
Honors Thesis Title: PCR amplification of *cellulase* genes

Genetics Laboratory, Reliance Life Sciences, Mumbai, India **2003**
Summer Intern
Research Focus: Cytogenetics using karyotyping and fluorescence in-situ hybridization to detect chromosomal abnormalities, including translocations, amplifications and micro-deletions

HONORS AND AWARDS

Fellowships & Research Funding

NARSAD Young Investigator Grant **2018 – 2021**
Brain and Behavior Research Foundation, USA
Title: Role of translin/trax, a microRNA degrading RNase complex, in mediating the effects of stress and antidepressant treatment in the dentate gyrus
Amount: $70,000

Teaching-as-Research Fellowship **2018 – 2019**
Johns Hopkins Teaching Academy, Baltimore, MD

Junior Research Fellowship and Eligibility for Lectureship in Life Sciences **2007**
University Grants Commission, India
For National Eligibility Test (NET)-qualified candidates to conduct research

Scholarship for Scientific Research **2007**
Lady Tata Memorial Trust, India
For young Indian scientists with an outstanding track record in biological sciences, a deep commitment to find innovative solutions to major problems related to human diseases and potential for high quality research

Presentation Awards

Grand Prize Winner, Promega Art Contest for Creative Scientists **2019**

Professor S.S. Parmar Research Foundation (USA) Award **2006**
For best paper presented at the poster session

Academic Recognition

Dr. Kate E. Marre Prize **2007**
For maintaining a consistently good academic record and participating with a sense of commitment in class and departmental activities in the MS class

Pragji Purshottam Bhatia Scholarship **2005**
For a Hindu lady student of MS with the highest score at the final year BS examination

J.J. & G.J. Lalwani and Hilloo Scholarship **2004**
For excellence in academics, co-curricular and extra-curricular activities

PUBLICATIONS

Journal Publications

(Names in red denote students I mentored)

1. Fu, X., **Shah, A. P.**, Keighron, J., Mou, T. M., Ladenheim B., Alt, J., Fukudome, D., Niwa, M., Sawa, A., Cadet, J-L, Rais, R., Tanda, G., Baraban, J. M. Constitutive deletion of *translin* (*Tsn*) enhances locomotor response to amphetamine: role of developmental effects. Submitted. bioRxiv 2020.10.08.331447
2. Sarabipour, S.[$], Arslan, F. N.[$], Hainer, S. J.[$], de Winde, C. M.[$], Furlong, E.[$], Bielczyk, N.[$], Jadavji, N. M.[$], Davla, S.[$], **Shah, A. P.**[$], Asby, N.[$] Ten simple rules for mentees in research environments. *PLOS Computational Biology*. Revise and Resubmit ([$]indicates equal contribution)
3. Sarabipour, S.[$], Hainer, S. J.[$], Furlong, E.[$], Jadavji, N. M.[$], de Winde, C. M.[$], Bielczyk, N.[$], **Shah A. P.**[$] Ten simple rules for writing effective and supportive recommendation letters. *The FEBS Journal.* Revise and Resubmit ([$]indicates equal contribution)
4. Auer, S., Haelterman, N., Weissgerber, T. L., Erlich, J. C., Susilaradeya, D., Julkowska, M., Gazda, M. A., Abitua, A., Niraulu, A., **Shah, A.**, et. al. Reproducibility for everyone: a community-led initiative with global reach in reproducible research training. Under Review https://doi.org/10.31219/osf.io/dxw67
5. Tuday, E., Nakano, M., Akiyoshi, K., Fu, X., **Shah, A. P.**, Yamaguchi, A., Steenbergen, C., Santhanam, L., An, S. S., Berkowitz D. E., Baraban, J. M, Das, S. Degradation of premature-miR-181b by the translin/trax RNase increases vascular smooth muscle cell stiffness. *Hypertension.* Revise and Resubmit.
6. Fu, X., **Shah, A. P.**, Li, Z., Li, M., Tamashiro, K. L., & Baraban, J. M. (2020). Genetic inactivation of the translin/trax microRNA-degrading enzyme phenocopies the robust adiposity induced by *Translin* (*Tsn*) deletion. *Molecular Metabolism*, 101013.
7. **Shah, A. P.**[$], Johnson, M. D.[$], Fu, X.[$], Boersma, G. J., Shah, M., Wolfgang, M. J., Tamashiro, K. L., & Baraban, J. M. (2020). Deletion of *Translin* (*Tsn*) induces robust adiposity and hepatic steatosis without impairing glucose tolerance. *International Journal of Obesity*, *44*(1), 254–266. ([$]indicates equal contribution)
8. Tuday, E., Nomura, Y., Ruhela, D., Nakano, M., Fu, X., **Shah, A**., Roman, B., Yamaguchi, A., An, S. S., Steenbergen, C., Baraban, J. M., Berkowitz, D. E., Das, S. (2019). Deletion of the microRNA-degrading nuclease, translin/trax, prevents pathogenic vascular stiffness. *American Journal of Physiology-Heart and Circulatory Physiology*, *317*(5), H1116–H1124.

9. Chern, Y., Chien, T., Fu, X., **Shah, A. P**., Abel, T., & Baraban, J. M. (2019). Trax: a versatile signaling protein plays key roles in synaptic plasticity and DNA repair. *Neurobiology of Learning and Memory*, *159*, 46–51.
10. Fu, X., **Shah, A**., & Baraban, J. M. (2016). Rapid reversal of translational silencing: Emerging role of microRNA degradation pathways in neuronal plasticity. *Neurobiology of Learning and Memory*, *133*, 225–232.
11. **Shah, A. P**.[#], Carreno, F. R., Wu, H., Chung, Y. A., & Frazer, A. (2016). Role of TrkB in the anxiolytic-like and antidepressant-like effects of vagal nerve stimulation: Comparison with desipramine. *Neuroscience*, *322*, 273–286. ([#]indicates Corresponding Author)
12. **Shah, A.**[#], Carreno, F. R., & Frazer, A. (2014). Therapeutic modalities for treatment resistant depression: focus on vagal nerve stimulation and ketamine. *Clinical Psychopharmacology and Neuroscience: The Official Scientific Journal of the Korean College of Neuropsychopharmacology*, *12*(2), 83. ([#]indicates Corresponding Author)
13. **Shah, A.**[#], & Frazer, A. (2014). Influence of acute or chronic administration of ovarian hormones on the effects of desipramine in the forced swim test in female rats. *Psychopharmacology*, *231*(18), 3685–3694. ([#]indicates Corresponding Author)
14. Li, J.-X., **Shah, A. P.**, Patel, S. K., Rice, K. C., & France, C. P. (2013). Modification of the behavioral effects of morphine in rats by serotonin (5-HT) 1A and 5-HT 2A receptor agonists: antinociception, drug discrimination, and locomotor activity. *Psychopharmacology*, *225*(4), 791–801.
15. Roth, M. K., Bingham, B., **Shah, A**., Joshi, A., Frazer, A., Strong, R., & Morilak, D. A. (2012). Effects of chronic plus acute prolonged stress on measures of coping style, anxiety, and evoked HPA-axis reactivity. *Neuropharmacology*, *63*(6), 1118–1126.
16. Furmaga, H., **Shah, A**., & Frazer, A. (2011). Serotonergic and noradrenergic pathways are required for the anxiolytic-like and antidepressant-like behavioral effects of repeated vagal nerve stimulation in rats. *Biological Psychiatry*, *70*(10), 937–945.

Book Chapters

17. Baraban, J. M., **Shah, A**., & Fu, X. (2018). Multiple Pathways Mediate MicroRNA Degradation: Focus on the Translin/Trax RNase Complex. In *Advances in Pharmacology* (Vol. 82, pp. 1–20). Academic Press.
18. Patton, M. H.[$], **Shah, A. P**.[$], & Mathur, B. N. (2016). Alcohol Effects on the Dorsal Striatum. In *The Basal Ganglia - Novel Perspectives on Motor and Cognitive Functions* (pp. 289–315). Springer International. ([$]indicates equal contribution)

List of my published work on Google Scholar

INVITED TALKS AND POSTER PRESENTATIONS

Talks

University of Minnesota Neuroscience Seminar Series (virtual), 2021
Title: Roles of translin/trax, a microRNA degrading complex, in the brain and beyond
Invited by postdoctoral fellows at UMN – Twin Cities to present at the departmental weekly seminar series

Baltimore Brain Series, National Institute on Drug Abuse, Baltimore, MD, 2017
Title: Translin/trax, a microRNA degrading complex, in the mesolimbic dopamine system

Intramural Research Program Branch Meeting, National Institute on Drug Abuse, Baltimore, MD, 2017
Title: Translin/trax, a microRNA degrading complex, in the mesolimbic dopamine pathway

Cold Spring Harbor Laboratory Course on the Cellular Biology of Addiction, Cambridge, UK, 2016
Title: Regulation of dopaminergic signaling by the microRNA system

International Symposium on Cellular Signaling during Development, Pune, India, 2006
Title: Regenerating brain of earthworm as a model system to study differentiation of dopaminergic neurons in adult animals

Posters

(Names in red denote students I mentored)
A. Shah, H. Adwanikar, A. Ibrahim and K. Clark The Defining Features Matrix as a review strategy for basic concepts in a Psychopharmacology course **Undergraduate Biology Education Research Gordon Research Seminar and Conference** (2019)

A. P. Shah[$],** M. D. Johnson[$], X. Fu, G. J. Boersma, M. Shah, M. J. Wolfgang, K. L. Tamashiro, J. M. Baraban *Translin* (*Tsn*) deletion induces robust adiposity and hepatic steatosis without impairing glucose tolerance **Mid-Atlantic Nutrition Obesity Research Center Annual Symposium (2018) ([$]indicates equal contribution)

A. Shah, X. Fu, J. Keighron, M. Mou, J. Alt, R. Rais, G. Tanda, J. M. Baraban *Translin* deletion impairs cocaine-induced enhancement of evoked dopamine release **83rd Cold Spring Harbor Laboratory Symposium on Quantitative Biology - Brains & Behavior: Order & Disorder in the Nervous System** (2018)

X. Fu, **A. Shah**, M. Niwa, D. Fukudome, A. Sawa, J.-L. Cadet, J. Keighron, G. Tanda, J. M. Baraban. Absence of translin/trax, a microRNA degrading RNase complex, blocks cocaine's ability to increase dopamine tone. Program No. 286.12. 2017 Neuroscience Meeting Planner. Washington, DC: **Society for Neuroscience** (2017)

M. D. Johnson, **A. Shah**, X. Fu, G. J. Boersma, K. L. Tamashiro, J. M. Baraban Role of *Translin*, an essential subunit of the translin/trax microRNA degrading enzyme, in metabolic energy balance **25th Annual Meeting of the Society for the Study of Ingestive Behavior** (2017)

A. Hernandez, **A. Shah**, X. Fu, M. Shah, J. M. Baraban Impact of *Translin* deletion on the dopamine system **Johns Hopkins University CARES Symposium** (2017)

A. Shah, X. Fu, J. Keighron, G. Tanda, J. Baraban Absence of translin/trax, a microRNA degrading RNase complex, impairs the dopamine response to cocaine **Catecholamines Gordon Research Seminar and Conference** (2017)

A. P. Shah, F. R. Carreno, H. Wu, M. DeGuzman, Y. Chung, A. Frazer Mechanisms underlying the antidepressant and anxiolytic effects of vagal nerve stimulation (VNS) Program No. 321.01. 2014 Neuroscience Meeting Planner. San Diego, CA: **Society for Neuroscience** (2014)

A. P. Shah, Y. Chung, F. R. Carreno, A. Frazer Mechanisms underlying the effects of vagal nerve stimulation Program No. 541.21. 2013 Neuroscience Meeting Planner. San Diego, CA: **Society for Neuroscience** (2013)

B. C. Bingham, **A. P. Shah**, J. M. Chemello, D. M. Morilak Rodent cognitive training as a model for therapeutic intervention in affective disorders Program No. 665.18. 2012 Neuroscience Meeting Planner. New Orleans, LA: **Society for Neuroscience** (2012)

A. P. Shah, A. Frazer Female sex steroids interfere with the antidepressant-like effects of selective noradrenergic reuptake inhibitors Program No. 70.11. 2012 Neuroscience Meeting Planner. New Orleans, LA: **Society for Neuroscience** (2012)

A. Shah, S. Benmansour, A. Frazer Interaction between ovarian hormones and antidepressants acting at serotonergic or noradrenergic transporters. Program No. 905.07. 2011 Neuroscience Meeting Planner. Washington, DC: **Society for Neuroscience** (2011)

M. K. Green, A. Joshi, **A. Shah**, A. Frazer, J. R. Strong, D. A. Morilak Effects of prenatal stress and combined chronic plus acute adult stress on anxiety-like behavior and evoked HPA axis activity in rats Program No. 190.06. 2011 Neuroscience Meeting Planner. Washington, DC: **Society for Neuroscience** (2011)

H. Truong, **A. Shah**, A. Frazer Behavioral effects of vagal nerve stimulation in the rat Program No.886.16 2010 Neuroscience Meeting Planner. San Diego, CA: **Society for Neuroscience** (2010)

H. Truong, **A. Shah**, A. Frazer Behavioral effects of vagal nerve stimulation in the rat **NARSAD symposium 'Healthy Minds Across America'** a public forum on mental health at UT Health San Antonio (2010)

A. Shah, A Kundnani, J. Jacob, A. Mane, D. Sengupta, M.C. Arunan Regenerating brain of earthworm as a model system to study differentiation of dopaminergic neurons in adult animals **International Symposium on Cellular Signaling during Development** - Selected for a Talk (2006)

PROFESSIONAL TRAINING

Pedagogy

Johns Hopkins Preparing Future Faculty Teaching Academy Program Certificate, 2017
Johns Hopkins Teaching Academy, Baltimore, MD

Johns Hopkins Teaching Institute, 2020
4-Day Online Workshop, Johns Hopkins Teaching Academy, Baltimore, MD

3rd Annual Summer Institute for Education Equity and Justice, 2020
Virtual Conference, American University School of Education, Washington, DC
Teaching Young Women of Color: Antiracist Practices and Strategies

Transforming Your Teaching with Perusall (an Online Social Annotation Tool), 2020
Online Training with Dr. Eric Mazur, Harvard University

Teaching with Technology, 2019
Online Seminar, Center for the Integration of Research, Teaching and Learning (CIRTL) Network

Pizza and Pedagogy, 2019
Workshop Series, Johns Hopkins Teaching Academy, Baltimore, MD

Equity in STEM for All Genders, 2019
Course, CIRTL Network

Teaching at the University Level, 2017
Course, Johns Hopkins School of Public Health, Baltimore, MD

Teaching Topics and Tapas, 2016 – 2017
Workshop Series, Johns Hopkins Teaching Academy, Baltimore, MD

College Science Teaching Seminars, 2016
Seminars, Towson University, Baltimore, MD

Introduction to the Science of Teaching, 2012
Course, UT Health San Antonio, TX

Neuroscience

Neural Circuits for Anxious Actions, 2020
Online Retreat, Neuroscience School of Advanced Studies, Venice, Italy

Cellular Biology of Addiction, 2016
Cold Spring Harbor Laboratory Course, Cambridge, UK

Electrophysiology in Neuroscience Research, 2013
UT Health San Antonio, TX

Clinical Practicum in Neurosurgery, 2010
UT Health San Antonio, TX

Neurobiology of Disease Workshop: Neurobiology of Depression, 2009
Society of Neuroscience Annual Meeting, Chicago, IL

Zoological Microtechniques, 2006
CHM College, Mumbai, India

Frontiers of Cellular Imaging in Neurobiology, 2005
National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India

Science Communication

Social Media for Science Communication, 2020
3-week Professional Development Course, Alan Alda Center for Communicating Science, NY

Massive Science Consortium, 2019 – Present
Provided feedback on articles written by peers for the public on various science topics

ClubSciWri, 2018 – 2019
Served as Lead Editor and edited several articles written by scientists for the public

The Story Collider Workshops on Telling Your Story and Writing For General Audiences, 2017
Johns Hopkins University, Baltimore, MD

PLOS Neuro at Society for Neuroscience, 2015
Selected by PLOS Neuro Community Editors to cover the annual meeting on Twitter and on the PLOS Neuro blog. Published a blogpost titled, 'Sex differences in preclinical neuroscience research: Snippets from #SfN15 with Catherine Woolley'

PROFESSIONAL SERVICE

Chair, Reproducibility for Everyone Social at Society for Neuroscience (SfN) Global Connectome, 2021

Panelist, 2nd Katherine E. Welsh Symposium on Graduate Education in the Era of Open Science, 2020
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

Ambassador, Protocols.io, 2020

Committee Member, Departmental Committee on Diversity and Inclusion, 2018 – Present
Department of Neuroscience, Johns Hopkins University, Baltimore, MD

Ambassador, eLife, 2018 – 2020

Event Panelist, Women in STEM Panel, 2019
Johns Hopkins University Carey Business School, Baltimore, MD

Invited Discussant, Rigor Reproducibility and Responsibility Course for Graduate Students, 2019
Department of Neuroscience, Johns Hopkins University, Baltimore, MD

Early Career Researchers' Seminar Series Co-Organizer, Baltimore Brain Series, 2018 – 2020
Collaboration between Johns Hopkins University, National Institute on Drug Abuse, and University of Maryland

Research Scholar, TEDMED, 2018

Peer-Reviewer for Scientific Journals, 2014 – Present
Neuropharmacology, Brain Stimulation, Journal of Affective Disorders, Neuropsychiatric Disease and Treatment, Neuroscience Letters, and Physiology and Behavior

SCIENCE OUTREACH

Awardee, COMPASS Outreach Grant, American Society for Cell Biology, 2020
Funding for resources to engage and mentor Baltimore middle school girls interested in STEM fields

Mentor, Freedom Employability Academy, 2019
Online platform for disadvantaged youth (15-27 y) on the verge of entering the labor force in India

Association for Women in Science (AWIS) Representative, Maryland STEM Festival Girl Empowerment Program, 2019
Deer Park Middle School, Randallstown, MD

Electronic Poster Judge, AAAS Annual Meeting, 2019
Washington DC

Volunteer, Skype A Scientist, 2018 & 2019
Platform for connecting scientists with classrooms. Conducted three sessions with 4th, 8th and 9th-12th graders

Class Leader, Baltimore Brain Connect (Project Bridge), 2018 & 2019
A program to teach local elementary school children the basics of Neuroscience, Baltimore, MD

Volunteer, AAAS USA Science and Engineering Festival, 2018
Washington DC

Volunteer, Video call with Middle School Science Teacher and her Students to discuss Neuroscience Research, 2018
P.S. 007 Samuel Stern, East Harlem, NYC, NY

Volunteer, #SciStuChat, 2018
Discussion on Twitter between high school students and scientists about science and art

Volunteer, Baltimore Brain Awareness Week Festival, 2018
Port Discovery Museum, Baltimore, MD

Speaker, Baltimore Science Gong Show, 2018
Charm City Meadworks, Baltimore, MD

Writer, Mentor Foundation USA, 2017
An organization that works with innovative, evidence-based intervention approaches to reduce youth substance use and promote health and wellbeing

Judge, Poster Competition for Undergraduate Students from Stevenson University, 2017
Johns Hopkins University, Baltimore, MD

Volunteer, Science At the Market, 2017
Local Farmers' Market Science Demonstrations Stall organized by Project Bridge, Baltimore, MD

Volunteer, STEAM Night, 2017
After-school program organized by Project Bridge, Henderson-Hopkins School (K-8), Baltimore, MD

Volunteer, Science Outside the Lines (Project Bridge), 2017
A community "art-infused" science education program organized by Project Bridge in collaboration with Art with a Heart at Henderson-Hopkins School (K-8), Baltimore, MD

Association for Women in Science (AWIS) Representative, BrainFest, 2016 & 2017
A science festival organized by Project Bridge for local school children in Baltimore, MD

Scientist, Research Remix, 2016
Collaboration between an artist and a scientist to create artwork inspired from research, Johns Hopkins University, Digital Media Center, Baltimore, MD

Scorekeeper and Timer, Brain Bowl, 2010 – 2012, 2014
Neuroscience quiz for undergraduate students, San Antonio, TX

PROFESSIONAL AFFILIATIONS

Faculty for Undergraduate Neuroscience
Pre Faculty Member, 2020 – Present

American Society for Cell Biology
Postdoctoral Member, 2020 – Present

Association for Women in Science – Baltimore Chapter
President, 2018 – Present
Vice President of Social Media, 2016 – 2018

Society for Neuroscience
Member 2009 – 2017, 2019 – Present