APARNA SHAH, PHD

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

EDUCATION

PhD	Pharmacology (Neuroscience Track) UT Health San Antonio, TX, USA	2014
MS	Life Sciences (Specialization: Neurobiology) Sophia College for Women, University of Mumbai, India	2007
BS	Life Sciences and Biochemistry (Double Major) St. Xavier's College, University of Mumbai, India Graduated with Honors	2005

TEACHING EXPERIENCE

Courses

Understanding Parkinson's Through the Lens of Neuroscience

2020

Baltimore Underground Science Space, Baltimore MD

Co-Instructor 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

Johns Hopkins University School of Medicine, Baltimore, MD

Co-Instructor 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

Johns Hopkins University, Baltimore MD

Teaching-as-Research Fellow

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

Goucher College, Center for Natural Sciences, Baltimore, MD Co-Instructor (Collaborative Teaching Fellowship)

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

Goucher College, Baltimore MD

Guest Lecturer (Collaborative Teaching Fellowship)

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

University of Maryland School of Medicine, Baltimore, MD

Instructor 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		Rebecca Zhang	2016	
Matilde Castro	2019	Gayathri Muthukumar	2015	
Lionel Rodriguez	2017	Marisa DeGuzman	2014	
Haishan Wu	2013 - 2014	Jonathan Chemello	2013	
Undergraduate Studer	1 40	Mohona Sadhu	2012	
Undergraduate Students		Hanna Yousuf	2010	
Xianyi Jia	2020			
Shannon Gavin*	2019	High School Students		
Madhura Shah	2017 - 2018	Micah Frier	2016	
Adiel Hernandez	2017	Madeline Gonzales Morales	2011	
Richard Ramirez-Garcia 2016 – 2017				
Ta-Chung Morris Mou 2015 – 2017 *received the Dean's Undergraduate Re			aduate Research	
Haram Joo	2016	Award		

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RESEARCH EXPERIENCE

Johns Hopkins University, Baltimore, MD, USA

2015 - Present

Postdoctoral Fellow

Research Advisor: Jay Baraban

Research Focus: Role of microRNA processing 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

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 University Grants Commission, India

2007

For National Eligibility Test (NET)-qualified candidates to conduct research

Scholarship for Scientific Research Lady Tata Memorial Trust, India

2007

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. 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.
- 3. **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)
- 4. Tuday, E., Nomura, Y., Ruhela, D., Nakano, M., Fu, X., **Shah, A**., Roman, B., Yamaguchi, A., An, S. S., Steenbergen, C., & Others. (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.
- 5. 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.
- 6. 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.
- 7. **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)
- 8. **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)*

- 9. **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)
- 10. 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.
- 11. 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.
- 12. 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

- 13. 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.
- 14. 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

Manuscripts In Preparation

- 1. 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 (for *PLOS Computational Biology*). (\$indicates equal contribution)
- 2. 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 (for *PLOS Computational Biology*). (\$indicates equal contribution)

INVITED TALKS AND POSTER PRESENTATIONS

Talks

Baltimore Brain Series, 2017

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

Intramural Research Program Branch Meeting, 2017

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

Cold Spring Harbor Laboratory Course on the Cellular Biology of Addiction, 2016

Title: Regulation of dopaminergic signaling by the microRNA system Cambridge, UK

International Symposium on Cellular Signaling during Development, 2006

Title: Regenerating brain of earthworm as a model system to study differentiation of dopaminergic neurons in adult animals

Pune, India

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

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 <u>blogpost</u> titled, 'Sex differences in preclinical neuroscience research: Snippets from #SfN15 with Catherine Woolley'

PROFESSIONAL SERVICE

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

Professional Development Workshop Organizer, Society for Neuroscience Annual Meeting, 2019

Workshop topic: Reproducibility for Everyone

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