



EDUCATION

2015	University of North Carolina Chapel Hill Ph.D. in Neurobiology
2011	University of North Carolina Wilmington M.A. in Psychology
2008	James Madison University B.S. in Psychology (major) and Statistics (minor)

PROFESSIONAL POSITIONS

2025 –	Associate Professor with tenure, Department of Biology
2025 –	Associate Professor of Biomedical Engineering and Neurosurgery (by courtesy)
2024 –	Director, Penn State Neuroscience Institute – University Park
2024 –	Associate Director for Neuroscience, Gerosciences and Dementia Prevention Consortium, Penn State
2023 –	Associate Director for Postdoctoral Training and Leadership, Center for Neural Engineering, Penn State
2023 –	Assistant Professor, Department of Pharmacology, PSU College of Medicine (by courtesy)
2022 –	Dorothy Foehr Huck and J. Lloyd Huck Early Career Chair in Neurobiology & Neural Engineering
2020 –	Assistant Professor, Departments of Biology and Biomedical Engineering (BME by courtesy), Penn State

PSU Affiliations: The Center for Neural Engineering; The Center for Neurotechnology in Mental Health Research; The Center for the Molecular Investigation of Neurological Disorders; The Center for Brain Behavior and Cognition; The Center for Healthy Aging; The Center for Reproductive Biology and Health; The Huck Institutes of the Life Sciences; College of Medicine; The Prevention Research Center

PSU Grad Programs: *Departmental*: Biology, Biomedical Engineering
Interdisciplinary: Neuroscience Graduate Program; Cellular, and Integrative Biosciences Graduate Program (MCIBs); Integrative and Biomedical Physiology Graduate Program; Medical Scientists Training Program (through PSU College of Medicine)

Previous Positions:

2018 – 2020	Assistant Research Professor, Department of Biobehavioral Health, Penn State
2016 – 2018	Postdoctoral Fellow, Department of Biology, Penn State
2009 – 2011	Post-baccalaureate Intramural Research Training Award Fellow, National Institute on Alcohol Abuse and Alcoholism, NIH
2008	Post-baccalaureate Intramural Research Training Award Fellow, National Institute on Environmental Health Science, NIH

39. Kim, Griffith, Brockway, **Crowley**, & Medina (2025). Ultrasound actuated neuropeptide delivery across cerebrovascular interfaces using phase-change peptide nanoemulsions. *Journal of Colloid and Interface Science*
38. Seemiller & **Crowley [co-corresponding authors]** (2025). A blind spot in addiction research: hormonal contraceptives and adolescent reward seeking. *Neuropsychopharmacology*
37. Turner, Brockway, Hossain, Griffith, Greenawalt, Zhang, Gheres, **Crowley**, & Drew. Type-I nNOS neurons orchestrate cortical neural activity and vasomotion. *Reviewed Preprint, eLife*
36. Smith, Griffith, Sicher, Brockway, Proctor, & **Crowley [corresponding author]** (2024). Alcohol consumption confers lasting impacts on prefrontal cortical neuron intrinsic excitability and spontaneous neurotransmitter signaling in the aging brain in mice. *Accepted, Neurobiology of Aging* (9/17/2024)
35. Sicher, Liss, Vozella, Marsland, Seemiller, Springer, Starnes, Griffith, Smith, Deak, Roberto, Varodayan, & **Crowley [corresponding author]**. Voluntary adolescent alcohol exposure does not robustly increase adulthood consumption of alcohol in multiple mouse and rat models. *Accepted, Addiction Neuroscience* (7/29/2024)
34. Brockway & **Crowley [corresponding author]**. Emerging pharmacological targets for alcohol use disorder. *Accepted, Alcohol* (7/24/2024)
33. Seemiller, Flores-Cuadra, Griffith, Smith, & **Crowley [corresponding author]** (2024). Alcohol and stress exposure across the lifespan are key risk factors for Alzheimer's Disease and cognitive decline. *Neurobiology of Stress* 29: 1-12
32. Brockway, Moyer, Aloimonos, Clarity, Griffith, Smith, Dao, Hossain, Drew, Gordon, Kupferschmidt & **Crowley [corresponding author]** (2023). Somatostatin peptide signaling dampens cortical circuits and Promotes exploratory behavior. *Cell Reports* 42(8): 1-21
31. Sicher, Starnes, Griffith, Dao, Smith, Brockway, & **Crowley [corresponding author]** (2023). Adolescent binge drinking leads to long-lasting changes in cortical microcircuits in mice. *Neuropharmacology* 234: 1-16
30. Fleeman, Snyder, Kuhn, Chan, Smith, **Crowley**, Arnold, & Proctor. Predictive link between systemic metabolism and cytokine signaling in the brain of Apolipoprotein ε4 mice (2022). *Neurobiology of Aging* 123: 156-169
29. Griffith & **Crowley [corresponding author]** (2022). An innovative approach to examining the role of neurotransmitters in fear circuitry. *Neuropsychopharmacology* 47(13): 2175–2176
28. **Crowley** & Medina [**corresponding author**] (2022). Targeted and transient opening of the blood brain barrier in discrete neurocircuits and brain regions. *Neuropsychopharmacology* 48(1): 253–254
27. Suresh Nair, Dao, Lopez Melean, Griffith, Duerr, Starnes, Moyer, Sicher, Brockway, & **Crowley [corresponding author]** (2022). Somatostatin neurons in the bed nucleus of the stria terminalis play a sex-dependent role in binge drinking. *Brain Research Bulletin* 186: 38-46
26. Sicher, Duerr, Starnes, & **Crowley [corresponding author]** (2022). Adolescent alcohol and stress exposure rewires key cortical neurocircuitry. *Frontiers in Neuroscience* 16: 1-18
25. **Crowley** & Joffe [**co-corresponding authors**] (2021). Developing breakthrough psychiatric treatments by modulating G protein-coupled receptors on prefrontal cortex somatostatin interneurons. *Neuropsychopharmacology* 47(1): 389–390
24. Dao, Brockway, Suresh Nair, Sicher, & **Crowley [corresponding author]** (2021). Somatostatin neurons control an alcohol binge drinking prelimbic microcircuit in mice. *Neuropsychopharmacology* 46(11): 1906-1917
 - Received the **ACNP NEECA** for best Early Career Paper of 2021
 - See also: *Neuropsychopharmacology Research Highlight on this work:*
<https://www.nature.com/articles/s41386-021-01103-5>
23. McSweeney, **Crowley**, Deng, Jian, Zou, Shi, Vitale, Liu, Luscher, & Mao (2020). An exon junction complex factor, RBM8a, is required for normal interneuron development. *Translational Psychiatry* 10(1): 1-17

22. Brockway & **Crowley [corresponding author]** (2020). Turning the 'tides on neuropsychiatric diseases: the role of peptides in the prefrontal cortex. *Frontiers in Behavioral Neuroscience* 14: 1-23
21. Dao, Nair, Magee, Moyer, Sendao, Brockway, & **Crowley [corresponding author]** (2020). Forced Abstinence from alcohol induces sex-specific depression-like behavior and neural adaptations in somatostatin neurons in cortical and amygdalar regions. *Frontiers in Behavioral Neuroscience* 14: 1-15
20. Torruella-Suarez, Vandenberg, Cogan, Tipton, Teklezghi, Dange, Patel, McHentry, Hardaway, Kantak, **Crowley**, DiBerto, Faccidomo, Hodge, Stuber, & McElligott (2020) Manipulation of central amygdala neurotensin neurons alter the consumption of rewarding fluids in mice. *Journal of Neuroscience* 40(3): 632-647
19. Dao, Brockway, & **Crowley [corresponding author]** (2019). In vitro optogenetic characterization of neuropeptide release from prefrontal cortical somatostatin neurons. *Neuroscience* 419: 1-4
18. **Crowley [corresponding author]**, Magee, Bourcier, Dao, & Lowery-Gionta (2019). Animal models of alcohol use disorders and the brain: from casual drinking to dependence. *Translational Issues in Psychological Sciences* 5(3): 222-242
17. Feng, **Crowley**, Patel, Guo, Bugni, & Luscher (2019). Reversal of a treatment-resistant, depression-related brain state with the Kv7 channel opener retigabine. *Neuroscience* 406: 109-125
16. **Crowley**, Magee, Feng, Jefferson, Morris, Dao, Brockway, & Luscher (2019). An antidepressant dosage of ketamine normalizes binge drinking-induced defects in glutamatergic synaptic transmission and ethanol drinking behavior. *Neuropharmacology* 149: 35-44
15. Lowery-Gionta*, **Crowley*** [Co-First Authorship], Bukalo*, Silverstein, Holmes, & Kash (2018). Chronic stress dysregulates amygdalar output to the prefrontal cortex. *Neuropharmacology* 139: 68-75
14. Caruso, **Crowley**, Reiss, Caulfield, Luscher, Cavigelli, & Kamens (2018). Adolescent social stress increases anxiety-like behavior and alters synaptic transmission, without influencing nicotine responses, in a sex-dependent manner. *Neuroscience* 373: 182-198
13. **Crowley**, Bloodgood, Hardaway, Kendra, McCall, Al-Hasani, McCall, Yu, Schools, Krashes, Lowell, Whistler, Bruchas, & Kash (2016). Dynorphin controls the gain of an amygdalar anxiety circuit. *Cell Reports* 14(12): 2772-2783
12. Al-Hasani, McCall, Shin, Gomez, Schmitz, Bernardi, Pyo, Park, Marcinkiewicz, **Crowley**, Krashes, Lowell, Kash, Rogers, & Bruchas (2015). Distinct subpopulations of nucleus accumbens dynorphin neurons drive aversion and reward. *Neuron* 87(5): 1063-1077
11. Pleil, Lowery-Gionta, **Crowley**, Li, Marcinkiewicz, McCall, Maldonado-Devincci, Morrow, & Kash (2015). Effects of chronic ethanol exposure on neuronal function in discrete regions of the prefrontal cortex and extended amygdala. *Neuropharmacology* 99: 735-749
10. Vardy, Robinson, Li, Olsen, DiBerto, Sassano, Huang, Zhu, Urban, Rittiner, **Crowley**, Pleil, Song, Kash, Malanga, Krashes, & Roth (2015). A new DREADD facilitates the multiplexed chemogenetic interrogation of behavior. *Neuron* 86(4): 936-946
9. **Crowley** & Kash (2015). Kappa opioid receptor signaling throughout the brain: Involved circuitry and implications for treatment. *Progress in Neuro-psychopharmacology and Biological Psychiatry* 62:51-60
8. Hardaway*, **Crowley*** [Co-First Authorship], Bulik, & Kash (2015). Integrated circuits and molecular components for stress and feeding: Implications for eating disorders. *Genes, Brains, and Behavior* 14(1): 85-97
7. Kash, Pleil, Marcinkiewicz, Lowery-Gionta, **Crowley**, Mazzone, Sugam, Hardaway, & McElligott (2014). Neuropeptide signaling in the BNST. *Molecules and Cells* 38(1): 1-13
6. Masneuf*, Lowery-Gionta*, Colacicco, Pleil, Li, **Crowley**, Stamatakis, Flynn, Holmes, & Kash (2014). Glutamatergic mechanisms associated with stress-induced amygdala excitability and anxiety related behavior. *Neuropharmacology* 85: 190-197
5. DePoy, Daut, Wright, Camp, **Crowley**, Noronha, Lovinger, & Holmes (2014). Chronic alcohol alters reward behaviors and striatal plasticity. *Addiction Biology* 20(2): 345-348
4. Parisiadou, Yu, Sgobio, Xie, Lui, Sun, Gu, Lin, **Crowley**, Lovinger, & Cai (2014). LRRK2 regulates synaptogenesis and dopamine receptor activation of striatal projection neurons through modulation of PKA activity. *Nature Neuroscience* 17(3): 367-376
3. **Crowley**, Cody, Davis, Lovinger, & Mateo (2013). Chronic methylphenidate exposure during adolescence reduces striatal synaptic responses to ethanol. *European Journal of Neuroscience* 39(4): 548-556

2. Depoy, Daunt, Brigman, MacPherson, **Crowley**, Gunduz-Cinar, Pickens, Cinar, Saksida, Kunos, Lovinger, Bussey, Camp, & Holmes (2013). Chronic alcohol produces neuroadaptations to prime striatal learning. *Proceedings of the National Academy of Sciences* 110(36): 14783-14788
1. Mathur, **Capik**, Alvarez, & Lovinger (2011). Serotonin-mediated competitive long-term depression at corticostriatal synapses. *Journal of Neuroscience* 31(20): 7402-7411 // paper published under maiden name
-

PREPRINTS

XX. Brockway, Griffith, Kacala, Bellfy, Seemiller, Ulrich, Ricotta, Hossain, Kwapis, Drew, & **Crowley** [corresponding author]. Alcohol consumption disrupts cortical somatostatin peptide signaling in mice. Available on *BioRxiv*

XX. Seemiller, Ünsal, Xie, Hossain, Tuttle, Johnson-Dendy, McDonald, Drew, Zhang, & Crowley [corresponding author]. Adolescent alcohol consumption alters sex-specific behaviors associated with prefrontal functional connectivity in mice. Available on *BioRxiv*

BOOK CHAPTERS

1. Sicher & **Crowley** (2024). Alcohol dysregulation of developing cortical GABA circuits. In *Effects of alcohol on the brain across the lifespan: recent advances from preclinical studies*. Editors: Valenzuela, Linsenhardt, Weiner. Springer.

FUNDING

CURRENT FUNDING

W.M. Keck Foundation 2025-2028 total: \$2,400,000 including institutional match
The (neural) stuff of nightmares

Role: MPI (Contact PI: Dr. Patrick Drew, PSU Engineering Science and Mechanics; MPI: Dr. Nanyin Zhang, PSU Biomedical Engineering)

R01 NIAAA/NIH 2025-2030 total: \$2,903,521

Sex dependent shifts in behavioral profiles and cortical signaling following adolescent binge drinking

Role: contact PI (MPI: Dr. Nanyin Zhang, PSU Biomedical Engineering; Co-I: Dr. Justin Silverman, PSU Statistics; Dr. Nikki Beloate, PSU Biomedical Engineering)

R01 NIAAA/NIH (Award #R01AA029403-01A1) 2022-2027 total: \$1,604,953

Prelimbic somatostatin peptide signaling in binge ethanol consumption

Role: PI (Co-I: Dr. Patrick Drew, PSU Engineering Science and Mechanics)

Center for Biodevices total: \$60,000

Precision Blood-Brain-Barrier Permeabilization using Acoustically Actuated Phase-Changing Nanoemulsions

Role: Co-PI (contact PI: Dr. Scott Medina, PSU Biomedical Engineering)

R01 NIA/NIH administrative supplement (Award #3R01AA029403-01A1) 2023-2027 total: \$304,741

Prelimbic somatostatin peptide signaling in binge ethanol consumption

Alzheimer's-Focused Administrative Supplements for NIH Grants that are Not Focused on Alzheimer's Disease

Role: PI (Co-I: Dr. Patrick Drew, PSU Engineering Science and Mechanics; Dr. Marty Sliwinski, PSU Human Development and Family Studies; Dr. Elizabeth Proctor, Neurosurgery)

CURRENT TRAINEE EXTERNAL FUNDING

For undergraduate student funding, see teaching and mentoring (Penn State total over \$50,000)

F30 NIAAA/NIH 2025-2029 requested total: \$183,704

Investigating Estrogen-Mediated Signaling in Binge Drinking Microcircuits of the Prefrontal Cortex

PI: Victoria Nudell
Role: Sponsor (Co-Sponsor, Dr. Leon Coleman, UNC)

American Heart Association Predoctoral Fellowship 2025-2027 \$65,548

Investigating the impact of alcohol binge drinking on somatostatin neural activity and brain hemodynamics during sleep

PI: Julio Flores Cuadra, Neuroscience PhD Program

Role: Sponsor. Co-Sponsor: Dr. Patrick Drew

F32 NRSA NIAAA/NIH (Award #F32AA031396) 2024-2027 total: \$220,224

Sex differences in somatostatin cell dynamics and exploratory behavior after adolescent binge drinking

PI: Dr. Laurel Seemiller

Role: Sponsor. Co-Sponsor: Dr. Patrick Drew

F31 NRSA NIAAA/NIH (Award #F31AA0304550) 2022-2026 total: \$142,452

Investigating the effects of adolescent binge drinking on prelimbic somatostatin circuitry

PI: Avery Sicher, Neuroscience PhD Program

Role: Sponsor. Co-Sponsor: Dr. Patrick Drew

F31 NRSA NIEHS/NIH 2024-2028 (Award #F31ES036154) total: \$108,092

Nasal uptake of polystyrene nano plastics into the murine central nervous system

PI: Denver Greenawalt

Role: Co-Sponsor. Sponsor: Dr. Patrick Drew

SUBMITTED FUNDING

R21 NIA/NIH 2025-2027 requested total: \$440,827

Epigenetic and cellular mechanisms of age-related impairments in memory updating

Role: Co-Investigator (PI: Dr. Janine Kwapis, PSU Biology)

Status: A1 percentile: 12

R01 NIDA/NIH 2025-2030 requested total: \$2,346,803.00

Impact of nicotine exposure on prefrontal sleep circuit dynamics

Role: MPI (Contact-PI: Dr. Patrick Drew, PSU Engineering Science and Mechanics)

Status: submitted 10/2024

SUBMITTED TRAINEE EXTERNAL FUNDING

F32 NIAAA/NIH 2025-2028 requested total: \$224,868

Examining somatostatin receptor pathways following binge drinking: a focus on PFC → PAG projections

PI: Dr. Gwendolyn Burgess

Role: Sponsor (Co-Sponsor: Dr. Patrick Drew)

A0 impact score: 40

F31 NIA/NIH 2025-2028

Environmental Triggers of Oxidative Stress Promote Neuronal Vulnerability in the APOE4 Brain

PI: Rachel Kang

Role: Co-Sponsor (Sponsor: Dr. Elizabeth Proctor, PSU College of Medicine)

COMPLETED FUNDING

NIAAA/NIH 2019-2024

National Institutes of Health LRP (2nd renewal award)

Investigation of key pathways modulated by juvenile chronic variable social stress

Role: PI

P50 NIAAA/NIH (Award #P50AA017823) 2021-2023 *subaward total: \$140,700*

Binghamton University Developmental Exposure to Alcohol Research Center

Title: Impact of Adolescent Alcohol on Prefrontal Circuits

Role: PI of PSU subaward (Binghamton on-site co-PI: Dr. David Jentsch)

R21 NIAAA/NIH (Award# AA028088-01) 2020-2022 *total: \$392,244*

Title: Investigation of a novel prelimbic cortical peptidergic population in binge drinking behavior

Role: PI

NIH Office of the Director (Administrative Supplement #AA028088-02S1) 2021-2023 *total: \$80,250*

Investigation of a novel prelimbic cortical peptidergic population in binge drinking behavior

Role: PI

Benkovic Research Initiative 2022-2023 *total year 1: \$150,000*

Novel methods for non-invasive neuropeptide administration to the brain

Role: PI (Co-PI: Scott Medina, PSU Biomedical Engineering)

The Brain and Behavior Research Foundation 2019-2022 *total: \$70,000*

NARSAD Young Investigator Award (Award #27200)

Title: Investigating the role of prelimbic somatostatin neurons in binge ethanol consumption

Role: PI

Penn State Consortium to Combat Substance Abuse 2019-2021

Investigation of key opioid pathways modulated by adolescent chronic variable social stress

Role: PI

NIAAA/NIH 2017-2019

National Institutes of Health LRP Awardee

Investigation of Key Pathways Modulated by Juvenile chronic variable social stress

Role: PI

Penn State Social Science Research Institute 2016-2019

Investigation of the role of somatostatin neurons in alcohol consumption

Role: PI

UNC School of Medicine 2015

Dissertation Completion Fellowship

Role: Fellow

Awarded at the recommendation of the Graduate School for Excellence in Research

NIAAA/NIH NRSA (Award #1F31AA022280-01) 2013-2015

Ruth L. Kirschstein NRSA

Alcohol Regulation of kappa opioid receptor systems in the extended amygdala

Role: Fellow (Mentors: Dr. Thomas Kash, Dr. David Lovinger)

National Institute on Alcohol Abuse and Alcoholism

June 2009-August 2011

Intramural Research Training Award

Role: Fellow (Mentor: Dr. David Lovinger) area: systems neuroscience

National Institute of Environmental Health Sciences

May 2008-September 2008

Intramural Research Training Award

Role: Fellow (Mentor: Dr. Lawrence Lazarus) area: chemistry

GRADUATE STUDENT INTERNAL FUNDING

T32 Award NIGMS/NIH Physiological Adaptations to Stress (Award #T32GM108563) 2025-2027

PI: Yiyan Xie, Neuroscience PhD Program

Role: Mentor (co-advised with Dr. Nanyin Zhang)

T32 Award NINDS/NIH Cross-Disciplinary Neural Engineering (Award #T32NS115667) 2024-2026

PI: Victoria Nudell, MSTP with Molecular, Cellular, and Integrative Biosciences PhD Program

Role: Primary Mentor. Co-Mentor: Dr. Grayson Sipe

T32 Award NINDS/NIH Cross-Disciplinary Neural Engineering (Award #T32NS115667) 2023-2025

PI: Shubham Mirg, Biomedical Engineering

Role: Co-Mentor. Primary Mentor: Dr. Raj Kothapalli

T32 Award NIGMS/NIH Physiological Adaptations to Stress (Award #T32GM108563) 2023-2025

PI: Julio Flores Cuadra, Neuroscience PhD Program

Role: Mentor (co-advised with Dr. Patrick Drew)

T32 Award NINDS/NIH Cross-Disciplinary Neural Engineering (Award #T32NS115667) 2023-2025

PI: Michael Wenke, Neuroscience MD/PhD Program (MSTP with PSU College of Medicine)

Role: Co-Mentor. Primary Mentor: Dr. Patrick Drew

T32 Award NINDS/NIH Cross-Disciplinary Neural Engineering (Award #T32NS115667) 2022-2024

PI: Md Shakhawat Hossain, Biomedical Engineering PhD Program

Role: Co-Mentor. Primary Mentor: Dr. Patrick Drew

T32 Award NIGMS/NIH Physiological Adaptations to Stress (Award #T32GM108563) 2021-2023

PI: Avery Sicher, Neuroscience PhD Program

Role: Mentor

Second year declined to accept F31 NRSA funding

INVITED PRESENTATIONS, SEMINARS, ETC.

2026

- Alcoholism and stress: a framework for future treatment strategies (co-chair, NIAAA Young Investigator Award Symposium), Volterra, Italy (May 2026)

2025

- The Franklin Institute, Philadelphia, PA (October 2025)
- Center for Healthy Aging, Penn State (March 2025)
- Consortium on Substance Use and Addiction, The Social Science Research Institute (May 2025)

2024

- Annual Meeting of the American College of Neuropsychopharmacology (ACNP; invited symposium) Phoenix, AZ, December 2024
- University of Helsinki Neuroscience Center (invited talk) Helsinki, Finland October 2024
- Penn State Osher Lifelong Learners Institute (invited talk). Fall 2024
- Illinois Institute of Technology Department of Biology (invited talk). August 2024
- Penn State College of Medicine Discover Seminar Series (invited by Associate Dean's Office of Interdisciplinary Research). June 2024
- The Research Society on Alcohol, Annual Meeting (symposium, co-chair). Minneapolis MN June 2024
- Penn State Alumni Association (invited talk). May 2024
- Computational Properties of the Prefrontal Cortex. National Institute on Mental Health, NIH (symposium/invited debate). Bethesda, MD May 2024
- Penn State Neuroscience Institute Annual Retreat (invited talk). Hershey, PA May 2024
- The National Institute on Alcohol Abuse and Alcoholism, NIH (invited talk). Rockville, MD April 2024
- The Center for Healthy Aging at Penn State (invited talk). University Park, PA April 2024

- Gerosciences and Dementia Prevention Consortium annual retreat (invited talk). March 2024
- Alcohol and the Nervous System Gordon Research Conference (invited symposium). Galveston TX February 2024
- Eberly College of Science Penn State 30th Anniversary of the Ashtekar Frontiers of Science Lecture Series: Exploring Scientific Progress Over Three Decades: The Human Brain and the Human Mind (invited talk). State College PA February 2024

2023

- Penn State Addiction Center for Translation Symposium (invited talk). Hershey, PA December 2023
- Penn State Biological Sciences Society (invited talk). University Park PA October 2023
- Binghamton University Developmental Exposure to Alcohol Research Center (invited talk). Binghamton, NY September 2023
- Center for Neural Engineering Annual Retreat (invited talk). State College PA, August 2023
- The Research Society on Alcohol, Annual Meeting (symposium). Bellvue WA June 2023
- NIAAA Special Topics Meeting: Alcoholism and Stress: A Framework For Future Treatment Strategies (Young Investigator Award Symposium) Volterra, Italy, May 2023
- Society of Biological Psychiatry Annual Meeting (symposium), San Diego, CA April 2023
- Department of Neurobiology & Anatomy, Drexel University (invited talk). Philadelphia PA, March 2023

2022

- Annual Meeting of the American College of Neuropsychopharmacology (ACNP; invited symposium) Phoenix, AZ, December 2022
- Medical Scientists Training Program, PSU College of Medicine (invited talk) Hershey PA, October 2022
- Department of Nutrition seminar series, PSU (invited talk). University Park PA, October 2022
- Medical University of South Carolina Addiction Research Seminar Series (joint with Department of Neuroscience; invited talk). Charleston SC, October 2022
- Department of Kinesiology seminar series, PSU (invited talk). University Park PA, September 2022
- Center for Biodevices, PSU (invited talk). University Park PA, September 2022
- B. Brodie Lectureship in Pharmacology, PSU College of Medicine (invited talk). Hershey PA, March 2022
- National Institute on Mental Health (invited talk). Bethesda MD, March 2022
- Department of Biomedical Engineering seminar series, PSU (invited talk). University Park PA, February 2022

2021

- Uniformed Services University of the Health Sciences (US Army Medical School; invited talk), Bethesda MD, November 2021
- Molecular, Cellular, and Integrative Biosciences Annual Retreat, PSU (invited talk). University Park PA, August 2021
- Center for Neural Engineering, PSU (invited talk). University Park PA, April 2021

2020

- Developmental Exposure Alcohol Research Center (DEARC; invited talk) Binghamton University, Binghamton NY, November 2020
- University of Delaware Neuroscience Group (invited talk). September 2020
- Penn State Addiction Center for Translation, (invited talk). Hershey PA, January 2020

2019

- Integrative Neuroscience Research Center Seminar, Marquette University (invited talk). Milwaukee WI October 2019
- Department of Biology, Pennsylvania State University (invited talk). University Park, PA. November 2019.

2018

- Department of Biobehavioral Health, University Park, PA. March 2018
- Guest speaker at Westfield High School, Chantilly, VA. November 2018

2017

- Center for the Investigation of Neurological Disorders Annual Retreat, University Park, PA. June 2017

2016

- Symposium at the Second Annual Penn State Addiction Symposium, Hershey, PA. December 2016
- Center for the Investigation of Neurological Disorders Annual Retreat, University Park, PA. 2016
- Center for the Investigation of Neurological Disorders Symposia, University Park, PA. 2016

2015

- Symposium at the annual meeting on the Therapeutic Potential of Kappa Opioids in Pain and Addiction, Chapel Hill, NC. 2015

2014

- Arizona State University, Phoenix, AZ. 2014
- Nanosymposium, Annual Meeting for the Society for Neuroscience, Washington, DC. 2014

TEACHING & MENTORING ACTIVITIES

SUPERVISION OF STUDENTS AND FELLOWS

Post-Doctoral Fellows

Dr. Avery Sicher	2025-present
Dr. Gwen Burgess	2024-present
Dr. Laurel Seemiller <i>NIH/NIAAA F32 NRSA Fellow</i>	2022-present
Dr. Dakota Brockway	2023-2024

Post-Doctoral Fellows – formal advisory committee member or consultant

Dr. Erika Beyrent	Penn State (PI: Drew) <i>F32 NRSA Mentoring committee Award #F32NS143952</i>	2024-present
Dr. Bryan Cruz	The Scripps Research Institute (advisors: Drs. Marisa Roberto and Eric Zorrilla) <i>MOSAIC K99/R00 mentoring committee Award #K99AA031718-01</i>	2023-present

Current Graduate Students (Primary Mentor)

Keith Griffith	MD/PhD MSTP with PSU College of Medicine <i>Jointly mentored with Dr. Patrick Drew</i>	2026-present
Andrew Hamacher	Neuroscience PhD Program	2025-present
Yiyan Xie	Neuroscience PhD Program <i>Jointly mentored with Dr. Nanyin Zhang</i>	2025-present
Victoria Nudell	MD/PhD MSTP with PSU College of Medicine Molecular, Cellular, and Integrative Biosciences PhD Program <i>Cross Disciplinary Neural Engineering T32 Fellow</i>	2023-present
Julio Flores Cuadra	Neuroscience PhD Program <i>Physiological Adaptations to Stress T32 Fellow Huck Graduate Fellow Jointly mentored with Dr. Patrick Drew</i>	2022-present
Grace Smith	Biomedical Engineering MS Program <i>PSU University Graduate Fellow</i>	2022-present

Graduate Students (Primary Mentor) - Graduated

Avery Sicher	Neuroscience PhD Program <i>NIH NRSA Fellow</i> <i>Physiological Adaptations to Stress T32 Fellow</i> <i>Huck Graduate Fellow</i>	2020-2025
--------------	--	-----------

Dakota Brockway	Neuroscience PhD Program Thesis: <i>The Role of Somatostatin in the Prefrontal Cortex</i> <i>Huck Graduate Fellow</i> Next: Postdoctoral Fellow, University of Pittsburgh NIAAA DART-T32 fellow Advisor: Dr. Max Joffe	2018-2023
-----------------	---	-----------

Graduate Students – Dissertation Chair

Gretchen Pifer	Biology (PI: Kwapis)	2024-present
Rachel Kang	Biomedical Sciences, College of Medicine (PI: Proctor) <i>co-sponsored by Crowley for NIH F31 NRSA</i>	2023-present

Graduate Students (Dissertation Committee Member)

Jade Sency	Integrative & Biomedical Physiology (PIs: Gross/Sipe)	2025-present
Yifan Tao	Engineering Science & Mechanics (PI: Ozbolat)	2025-present
Sindhuja Baskar	Neuroscience (PI: Sipe)	2025-present
Zili Yan	Biomedical Engineering (PI: Zhang)	2024-present
Doris Olekanma	Neuroscience (PI: Skibicka)	2024-present
Gretchen Pifer	Biology (PI: Kwapis)	2024-present
Jiajing (Tim) Teng	Integrative and Biomedical Physiology (PI: Rolls)	2023-present
Fatemeh Salehi Shahrabaki	Biomedical Engineering (PI: Drew)	2023-present
Michael Wenke	MD/PhD MSTP with PSU College of Medicine Neuroscience PhD Program (PI: Drew) <i>co-mentored by Crowley for CDNE T32</i>	2023-present
Shubham Mirg	Biomedical Engineering (PI: Kothapalli) <i>co-mentored by Crowley for CDNE T32</i>	2023-present
Denver Greenawalt	MCIBS (PI: Drew) <i>co-sponsored by Crowley for NIH F31 NRSA</i>	2023-present
Chad Brunswick	Neuroscience (PI: Kwapis)	2022-present
Chad Smies	Biology (PI: Kwapis)	2022-present
Md Shakhawat Hossain	Biomedical Engineering (PI: Drew) <i>co-mentored by Crowley for CDNE T32</i>	2021- present
Lauren Bellfy	MCIBS (PI: Kwapis)	2021- 2025
Tong Jiang	Biology (PI: Luscher)	2021- 2025
Laurel Seemiller	MCIBS (PI: Gould)	2020- 2022

Undergraduate Student (Primary Mentor)

Sam Martell	Biology (Schreyer Honors College)	2024-present
Dylan Kearse	Biomedical Engineering and Mechanical Engineering	2024-present
Kate Rarrick	Biomedical Engineering (Schreyer Honors College)	2024-present
Bryce Johnson Dendy	Science	2024-present
Kaleah Tuttle	Biomedical Engineering (Clark Scholar)	2023-present
Damini Nair	Biology (Schreyer Honors College)	2023-present
Erin Wolfanger	Biology (Schreyer Honors College)	2023-present
Amir Siddiqui	Biology and Psychology	2023-2025
Roy Wu	Biochemistry and Molecular Biology	2023-2024

Undergraduate Students (Primary Mentor) - Graduated

Emily McDonald	Biological Sciences & Health Professions	2023-2024
----------------	--	-----------

Obi Nnabugwu	Biomedical Engineering (Clark Scholar)	2022-2024
Matthew Springer	Biology (Schreyer Honors College) next: medical student, Geisinger Commonwealth School of Medicine	2021-2024
Sophie Anderlind	Biology (Schreyer Honors College) next: Research Project Manager	2022-2023
Andrew Kacala	Biology (Schreyer Honors College) Next: medical student, Thomas Jefferson	2021-2023
David Starnes	Biology (Schreyer Honors College) next: medical student, Cooper Rowan	2019-2023
Nicole Lookfong	<i>summer student mentored with Dr. Yuval Silberman</i>	2021
Daniela Lopez Melean	Biology (Millennium Scholar)	2019-2022
Corey Zimmer	Biobehavioral Health	2019-2022
Brody Moyer	Biochemistry and Molecular Biology	2018-2022
Veronica Sendao	Biobehavioral Health next: Research assistant, Boston University	2018-2022
Malini Suresh Nair	Biology next: medical student, Wake Forest	2018-2019
Sarah Magee	Biology (Millennium Scholar) next: Neuroscience PhD Program, UNC	2016-2019
Alexandre Bourcier	Biology (Schreyer Honors College) next: medical student, UCLA	2016-2019

Undergraduate Students (Primary Mentor) – Summer Research Opportunities Big10 Program

Sarah Shibuya	Biomedical Engineering (Rose Hulman Institute of Technology) Next: Neuroscience PhD Program, Notre Dame	2024
Ariana Almarez	Psychology (Cal State San Marcos)	2023
Renee Laurenzana	Biological Sciences (Cal State San Marcos) next: Neuroscience PhD Program, ASU	2022

Staff

Varya Zlotnik	Research Technician Next: Master's student, University of Amsterdam	2023-present
Sophie Anderlind	Research Project Manager	2023-present
Keith Griffith	Research Technician next: MD/PhD MTSP, PSU College of Medicine	2021-2024
Grace Smith	Research Technician next: PSU Biomedical Engineering program	2021-2022
Nigel Dao	Research Technician next: NYU PhD program (PI: Adam Carter)	2018-2021
Malini Suresh Nair	Research Technician next: Wake Forest Medical School MD Program	2020-2021

High School Students (Health Professions Department, State College High School, Supervised in conjunction with Ms. Kathleen Seeland)

Lydia Fry	Currently: undergraduate student University of Colorado	2020-2021
-----------	--	-----------

Graduate Student and Postdoctoral Fellows – Independent Awards

Name	Position	Current Position	Grants/Funding During Training	Selected Honors/Awards
Graduate Students				

Victoria Nudell	MD/PhD student 2023-present	Current lab member	1. T32GM149380-01 (PSCOM MSTP) 2. T32NS115667 (Cross-Disciplinary Neural Engineering T32 Fellow)	1. 2024-2026 NIH NINDS T32 Fellow 2. Research Society on Alcohol - 2024 Travel Award for the Yale SCORE Sex & Gender Satellite Meeting
Julio Flores Cuadra	PhD student 2022-present	Current lab member	1. T32GM108563 Physiological Adaptations to Stress T32 Fellow 2. American Heart Association Predoctoral Fellowship	1. 2023-2025 NIH NIGMS T32 Fellow 2. 2022 Huck Distinguished Graduate Fellowship, Penn State 3. American Heart Association Predoctoral Fellowship
Grace Smith	MS Student 2022-present	Current lab member	University Graduate Fellow	1. 2022 University Graduate Fellowship, Penn State
Avery Sicher	PhD student, 2020-present	Current lab member	1. T32GM108563 Physiological Adaptations to Stress T32 Fellow 2. F31AA0304550 NIH NRSA Fellow	1. 2023-2024 Huck Graduate Student Association President 2. 2024 Penn State Neuroscience Institute Outstanding Trainee Award 3. 2023 2nd Place Oral Research Presentation, Huck Life Sciences Symposium, Penn State University 4. 2023 Student Merit Travel Award, Research Society on Alcoholism 5. 2022 Student Merit Travel Award, Research Society on Alcoholism 5. NIAAA F32 Fellow 6. 2021-2022 NIH NIGMS T32 Fellow
Dakota Brockway, PhD	PhD Student 2018-2023	NIAAA T32 Postdoctoral Fellow, University of Pittsburgh School of Medicine		1. Huck Distinguished Graduate Fellowship, Penn State
Postdoctoral Fellows				
Laurel Seemiller, PhD	2022-present	Current lab member	1. F32AA031396 NIH NRSA Fellow	1. 2024 NIH Outstanding Scholar in Neuroscience Award (OSNAP) 2. 2023 Postdoc Travel Award, Penn State Office of Postdoctoral Affairs 3. 2023 Trainee Professional Development Award, Society for Neuroscience 4. 2023 Junior Investigator Award, Research Society on Alcohol 5. 2023 NIH NIAAA F32 Fellow

UNDERGRADUATE STUDENT-LED FUNDING AND AWARDS

Total over \$65,000 in undergraduate student-led funding and grants at Penn State. All undergraduate awards have always been used 100% to support student stipends

2025

- Erikson Award, Awarded to Kate Rarrick (\$5,000)
- Student Engagement Network Award, awarded to Damini Nair (\$2,500)
- Irene and Eric Simon Brain Research Foundation Summer Fellowship, Awarded to Damini Nair (\$2,500)

2024

- College of Engineering Multi-Campus Research Experience for Undergraduates (MC-REU) program, Awarded to Kaleah Tuttle (Crowley: faculty mentor) \$5,000
- Student Engagement Network Award, Awarded to Amir Siddiqui (Crowley: faculty mentor) \$1,500
- Student Engagement Network Award, Awarded to Kaleah Tuttle (Crowley: faculty mentor) \$1,000
- Summer Undergraduate Research Experience (SURE), Awarded to Bryce Johnson Dendy (supervised by Dr. Seemiller, post-doc; Crowley: faculty co-mentor), \$8,000

2023

- Norman Freed Undergraduate Research Award in the Eberly College of Science: Awarded to Andrew Kacala (\$600)
- Eberly post session: 1st place in life sciences, Awarded to Andrew Kacala
- Biology Student Research Showcase Undergraduate Poster Contest: 1st place winner of 2023, Awarded to Damini Nair
- Engineering Undergraduate Scholarship, Awarded to Obi Nnabugwu (Crowley: faculty mentor), \$5,000
- Eberly Exhibit Award, 1st place for Data Visualization, awarded to Andrew Kacala for *The Role of Binge Alcohol Consumption On Somatostatin Cell Density and Signaling*, \$175
- Summer Undergraduate Research Experience (SURE), Awarded to Emily McDonald (supervised by Dr. Seemiller, post-doc; Crowley: faculty co-mentor), \$4,800
- Erikson Award, Awarded to Matthew Starnes (Crowley: faculty mentor), \$3,500
- The Edmund and Virginia Hunsicker Collins Undergraduate Research Award Awarded to David Starnes (Crowley: faculty mentor), \$2,000

2022

- Eberly College of Science Undergraduate Research Award, Awarded to Andrew Kacala (Crowley: faculty mentor), \$1250
- Eberly College of Science Undergraduate Research Award, Awarded to David Starnes (Crowley: faculty mentor), \$1250
- Engineering Equity Scholar's Program, Awarded to Obi Nnabugwu (Crowley: faculty mentor), \$3,500
- Schreyer Honor's College Summer Research Fund, Awarded to David Starnes (Crowley: faculty mentor), \$750
- Schreyer Honor's College Summer Research Fund, Awarded to Andrew Kacala (Crowley: faculty mentor), \$750

2021

- Eberly Undergraduate Research Support (2021), Awarded to David Starnes (Crowley: faculty mentor), \$1,000
- Erickson Award, Awarded to Brody Moyer (Crowley: faculty mentor), \$3,500
- Student Engagement Network Award, Awarded to David Starnes (Crowley: faculty mentor), \$2,000
- Schreyer Honor's College Summer Research Fund, Awarded to David Starnes (Crowley: faculty mentor), \$750

2019

- Student Engagement Network Award, Awarded to Malini Suresh Nair (Crowley: faculty mentor), \$1,000
- Anita M. Collins Undergraduate Research Fund, Awarded to Malini Suresh Nair (Crowley: faculty mentor), \$478
- Rock Ethics Institute Rise Up Award, Awarded to Alexandre Bourcier (Crowley: faculty mentor), \$1,000
- Anita M. Collins Undergraduate Research Fund, Awarded to Alexandre Bourcier (Crowley: faculty mentor), \$1,800
- Schreyer Honor's College Summer Research Fund, Awarded to Alexandre Bourcier (Crowley: faculty mentor), \$1,800
- Edward C. Hammond Jr. Memorial Scholarship, Awarded to Alexandre Bourcier (Crowley: faculty mentor), \$2,000

TEACHING EXPERIENCE

COURSE INSTRUCTOR OF RECORD

2026, spring	BIOL/BBH 469 Cellular and Molecular Neuroscience – <i>Course Director and Instructor</i> <i>Undergraduate enrollment: 90</i>
2025, spring	PHYSIO510 Physiological Adaptations to Stress – <i>Instructor</i> <i>Graduate enrolment: 15</i>
2025, spring	BIOL/BBH 469 Cellular and Molecular Neuroscience – <i>Course Director and Instructor</i> <i>Undergraduate enrollment: 80</i>
2024, spring	BIOL/BBH 469 Cellular and Molecular Neuroscience – <i>Course Director and Instructor</i> <i>Undergraduate enrollment: 70</i>
2023, fall	PHYSIO517 Integrated Cellular Physiology – <i>Instructor</i> <i>Graduate enrollment: 17</i>
2023, fall	BIOL/BBH 469 Cellular and Molecular Neuroscience – <i>Course Director and Instructor</i> <i>Undergraduate enrollment: 83</i>
2023, spring	BIOL/BBH 469 Cellular and Molecular Neuroscience – <i>Course Director and Instructor</i> <i>Undergraduate enrollment: 56</i>
2024	PHSIO 510 Integrative & Cellular Physiology I – <i>Instructor</i>
2023	PHSIO 510 Integrative & Cellular Physiology I – <i>Instructor</i>
2024	PHSIO 510 Physiological Adaptations to Stress – <i>Instructor</i>
2023	PHSIO 510 Physiological Adaptations to Stress – <i>Instructor</i>
2023	NEURO 521 Systems Neuroscience – <i>Course Director</i>
2022	NEURO 521 Systems Neuroscience – <i>Course Director</i>
2021	NEURO 521 Systems Neuroscience – <i>Course Director</i>
2024	NEURO 521 Systems Neuroscience – <i>Instructor</i>
2023	NEURO 521 Systems Neuroscience – <i>Instructor</i>
2022	NEURO 521 Systems Neuroscience – <i>Instructor</i>
2021	NEURO 521 Systems Neuroscience – <i>Instructor</i>
2020	NEURO 521 Systems Neuroscience – <i>Instructor</i>

GRADUATE TRAINING GRANT PARTICIPATION

2025-current	Training Faculty, Psychosocial Determinants and Biological Pathways to Healthy Aging T32 NIA Award #T32AG049676
2022-current	Program Committee, Cross Disciplinary Neural Engineering T32 NINDS Award #T32NS115667
2022-current	Training Faculty, Medical Scientists Training Program T32 (MD/PhD program) NIGMS Award #T32GM118294
2021-current	Training Faculty, Cross Disciplinary Neural Engineering T32 NINDS Award #T32NS115667
2020- current	Training Faculty, Physiological Adaptations to Stress T32 NIGMS Award #T32GM108563

GUEST LECTURES

2022-present	Training Faculty, Cross Disciplinary Neural Engineering T32 (weekly meetings/ 1-2 lectures per semester)
2021-present	Training Faculty, Physiological Adaptations to Stress T32 (participate in team teaching)
2022	Neuro 590 (PSU College of Medicine) (one lecture per semester) Graduate course, Instructor of record: Dr. Yuval Silberman
2021-2022	Engineering/Neuro 526 Cellular and Molecular Neuroscience (multiple lectures each year)

- Graduate course, Instructor of record: Dr. Patrick Drew
- 2016-present BIO/BBH 470: Functional and Integrative Neuroscience (multiple lectures each year)
Undergraduate course, Instructors of record: Dr. David Vandenberg, Dr. Janine Kwapis,
Dr. Nina Lauharatanahirun
- 2016-2021 BIO/BBH 469: Neurobiology (multiple lectures each year)
Undergraduate course, Instructor of record: Dr. Beni Luscher

AWARDS & HONORS

- 2024 **Associate Member**
American College on Neuropsychopharmacology
American College on Neuropsychopharmacology
Award for presenting at the ACNP 63rd Annual Meeting (\$1000)
- 2023 **Whitaker Center “Women of Impact: Woman to Watch in STEM” Award**
Recognizes a professional woman under 40 who has significant accomplishments and success in her STEM field
NIAAA Young Investigator Award
Special NIAAA Meeting "*Alcoholism and Stress: a Framework for future treatment strategies*"
(Volterra Meeting, May 2023)
Brain Research Bulletin
Journal cover art selection (*Special Issue – Addiction III: From Mouse to Man*)
- 2022 **Neuropsychopharmacology Editors Early Career Award (NEECA)**
Selected as the top paper published in NPP in the previous year by the Editors
American College on Neuropsychopharmacology (ACNP)
Senior Investigator Travel Award
American College on Neuropsychopharmacology (ACNP) (*provides financial support for 2022 meeting*)
- 2021 **American College on Neuropsychopharmacology (ACNP)**
Senior Investigator Travel Award Recipient (*provides financial support for 2021 meeting and allows for attendance at 2022-2025 meetings*)
- 2019 **NIH Center for Scientific Review**
Early Career Reviewer Program (NAL – October 2019)
Neuroscience
Journal cover art selection (*Issue #419C*)
- 2018 **NARSAD Young Investigator Award**
Brain and Behavior Research Foundation (*funding 01/2019-01/2021*)
- 2017 **Nominee, 2017 Dean’s Climate and Diversity Award**
Awarding Organization: Eberly College of Science, Penn State University
- 2014 **Best Poster Award**
Awarding Organization: *International Congress on Alcoholism and Stress*
- 2013 **Student Merit Award**
Awarding Organization: *Research Society on Alcoholism*
Ruth L. Kirschstein National Research Service Award
Awarding Organization: *National Institute on Alcohol Abuse and Alcoholism*
- 2012 **Student Merit Award**
Awarding Organization: *Research Society on Alcoholism*
- 2010 **Graduate Research Award**
Awarding Organization: *University of North Carolina – Wilmington*
Student Merit Award
Awarding Organization: *Research Society on Alcoholism*
- 2008 **Award for Outstanding Undergraduate Scholarship**
Awarding Organization: *James Madison University Department of Psychology*
Travel Award
Awarding Organization: *Association for Behavior Analysis – International*

- 2007 **Best Poster Award**
Awarding Organization: *Eastern Psychological Association*
Award for Outstanding Undergraduate Scholarship
Awarding Organization: *James Madison University Department of Psychology*
Travel Award
Awarding Organization: *Association for Behavior Analysis – International*
- 2006 **Award for Outstanding Undergraduate Scholarship**
Awarding Organization: *James Madison University Department of Psychology*

RECOGNITION AND MEDIA

INTERVIEWS

Healthy Minds with Jeffrey Borenstein, season 10 on PBS (airing fall 2025)
Newsweek: Neuroscientists Warn of 'Cascading' Alzheimer's Risk From These Two Habits [link](#)
Top 3 trending articles, ranked by Apple News, May 2024

INVITED EDITORIAL

- State College Town and Gown: Neurons never retire: how your brain adapts with age (*print and digital*) [link](#)
- The Conversation: Even 1 drink a day elevates your cancer risk – an expert on how alcohol affects the body breaks down a new government report [link](#)
Selected as headline article in 1/10/2025 newsletter, over 40,000 reads
- State College Town and Gown: Alcohol and sleep: how drinking affects your brain's ability to rest (*print and digital*) [link](#)
- The Conversation: Binge drinking is a growing public health crisis – a neurobiologist explains how research on alcohol use disorder has shifted [link](#)
Selected as headline article in 5/13/2024 newsletter; over 40,000 reads
Also published in Discover Magazine: How Binge Drinking Shifted Research On Alcohol Use Disorders
[link](#)

VIDEO

What are some of the biggest questions in neuroscience today? ([link](#) to Penn State Eberly Twitter)

PENN STATE PRINT MEDIA

Heard on Campus: Science, Health and Wellness PowHer Hour [link](#)
Early adult binge drinking has lasting impact on aging brain in mice [link](#)
Nikki Crowley named director of Neuroscience Institute at University Park [link](#)
Biology postdoc awarded National Institutes of Health fellowship [link](#)
Heard on campus: Nikki Crowley on 30 years of neuroscience advances [link](#)
Nikki Crowley honored with Women in STEAM Award by the Whitaker Center [link](#)
Uncovering the role of somatostatin signaling in the brain [link](#)
Mouse models of adolescent binge drinking reveal key long-lasting brain changes [link](#)
Crowley receives Huck Early Career Chair appointment [link](#)
New research on effects of binge drinking earns biologist early career award [link](#)
Penn State biologist receives NIH grant to help unlock biology of binge drinking [link](#)
Neuroscience grad student awarded grant to study adolescent binge drinking [link](#)

SERVICE & OUTREACH

EXTERNAL

2025, Oct NIH Reviewer – Study Section: NAL
2025 - Associate Editor, Alcohol
2024, Mar NIH Reviewer – Study Section: Special Emphasis Panel, Fellowship Applications ZAA1 GG (32)
2024, Mar United Kingdom Research and Innovation Funds - Reviewer

2024, Mar Alcohol and the Central Nervous System Gordon Research Conference – poster judge
 2023-2025 Guest Editor, Alcohol
 2023, Jun NIH Reviewer – Study Section: NIDA Special Emphasis Panel; ZDA1 MXS-T (O2)
 2023, Feb NIH Reviewer – Study Section: Special Emphasis Panel, Fellowship Applications ZAA1 GG (32)
 2022, Nov NIH Reviewer – Study Section: Special Emphasis Panel ZAA1 DD (04)
 2022, Mar NIH Reviewer – Study Section: Special Emphasis Panel ZAA1 DD (04)
 2022, Feb Reviewer, Swiss National Science Foundation
 2021, Feb NIH Reviewer – Study Section: Special Emphasis Panel [ZAA1 DD (04)]
 2019, Oct Early Career Reviewer, NIH Center for Scientific Review (Study Section: NAL)
 2017 Guest speaker, Westfield High School, Chantilly Virginia

INTERNAL

University service

2024, 2025 Faculty Scholars Medals - Entrepreneurship, Technology Transfer, and Economic Development (Office of the Senior Vice President for Research)
 2024 Search committee member, Director of the Huck Institutes for the Life Sciences (Office of the Senior Vice President for Research)
 2024- Director, Penn State Neuroscience Institute – University Park
 2023 Penn State Presidential Goals Task Force (*Growing Interdisciplinary Research Excellence Work Group*). Leads: Justin Schwartz, Executive Vice President and Provost; Lora Weiss, Senior Vice President for Research; Kevin Black, Dean, College of Medicine
 2023-present “Launch Committee” mentoring committee for junior faculty; Department of Nutrition, College of Health and Human Development
 2022-present Undergraduate neuroscience degree program development (Eberly/HHD/LA collaboration)
 2022 Junior Faculty Advisory Committee to Penn State Interim Vice President & Provost Justin Schwartz *selected as Eberly College of Science representative*
 2017 PSU Smoke Free Task Force (*silent observer*)
 2017 PSU Communications and Onboarding Working Group (Research Computing and Cyberinfrastructure Advisory Council to the Provost)

College or Institute service

2025- Steering Committee member, Center for Biodevices, Huck Institutes of the Life Sciences
 2025- Junior faculty mentoring committee; Department of Biomedical Engineering, College of Engineering
 2024,2025 Huck Institutes of the Life Sciences - Institutes and Centers Leadership Working Group
 2024-present Curriculum Advisory Committee, Neuroscience PhD Program
 2024-present Eberly College of Science Development Committee
 2022, 2024 The Huck Institutes of the Life Science HITS (Huck Innovative and Transformative Seed Funds) grant reviewer and panelist
 2024-present Associate Director for Neuroscience, Gerosciences and Dementia Prevention Consortium
 2024-present Reviewer, Clinical and Translational Sciences Institute TL1 Translational Research Training Program applications (College of Medicine)
 2024-present Huck Life Sciences Symposium, judge, graduate and undergraduate
 2023 FaculTEA Panel, College of Engineering Center for Engineering Outreach and Inclusion
 2023 Search committee member, Eberly College of Science Associate Dean for Research
 2023-present Associate Director for Postdoctoral Training and Leadership, Center for Neural Engineering
 2023-present Program Committee, Cross Disciplinary Neural Engineering T32 Training Award (NINDS Award #T32NS115667)
 2020-present Molecular, Cellular, and Integrative Biosciences Qualifying Exam Committee
 2020-present Neuroscience Graduate Program Qualifying Exam Committee
 2019 -present Neuroscience Graduate Program Admissions Committee
 2016-present PSU Program for Translation Research on Adversity and Neurodevelopment (P-TRAN)
 2016-present PSU Undergraduate Neighbor-Neighbor Outreach
 2010-2015 UNC Biological & Biomedical Science’s Student Liaison Committee

2013 UNC Perl Prize Committee
2012-2015 UNC School of Medicine Graduate Student Recruitment
2009-2010 NIH Scientific Careers Community Outreach

Department service

2025 x 2 Search committee chair, Department of Biology (tenure-track neurobiologist)
2021-present Marker Lecture committee member
2021-2022 Search committee member, Department of Biology (tenure-track neurobiologist)
2021-present Biomedical Engineering Graduate Program Qualifying Exam Committee member
2021-2023 Biology Department Sustainability committee member
2021 Biomedical Engineering Graduate Program Admissions Committee member
2021 Biology Department Graduate Admissions Committee member

DEI-RELATED TRAINING AND ACTIVITIES

2023 FaculTEA Panel, College of Engineering Center for Engineering Outreach and Inclusion
2022-present PSU Summer Research Opportunities Program Mentor
2022-present Founding Member, Rainbow Engineering Network
2021-present Member, Rainbow Science Network
2021 Millennium Scholars Program Faculty Advisory Network
Penn State Safer People Safer Places: Transgender and Gender Inclusion 101
Penn State Safer People Safer Places: Foundations Workshop

PROFESSIONAL ACTIVITIES

Editorial Experience

Alcohol (2023-2024 special issue on sex differences, co-edited with Dr. Erin Calipari)

Ad Hoc Journal Reviewer

Addiction Neuroscience
Alcohol
Biological Psychiatry
Journal of Neuroscience
Nature Communications
Neurobiology of Stress
Neuropharmacology
Neuropsychopharmacology
Physiology and Behavior
Psychopharmacology

Society Memberships

American College on Neuropsychopharmacology (2024-present)
Society for Biological Psychiatry (2019-present)
International Congress on Alcoholism and Stress (2011-present)
Society for Neuroscience (2010-present)
Research Society on Alcoholism (2010-present)
Society for Behavior Analysis (2006-2009)
Eastern Psychological Association (2006-2009)