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## 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)

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## PROFESSIONAL POSITIONS

2023 –	Associate Director for Postdoctoral Training and Leadership, Center for Neural Engineering, Penn State
2022 –	Dorothy Foehr Huck and J. Lloyd Huck Early Career Chair in Neurobiology & Neural Engineering
2020 –	Assistant Professor, Departments of Biology and Biomedical Engineering, 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 Huck Institutes of the Life Sciences; College of Medicine

PSU Grad Programs: *Departmental:* Biology, Biomedical Engineering.  
*Interdisciplinary:* Neuroscience Graduate Program; Biomedical Engineering Graduate Program; Molecular, 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, PSU
2016 – 2018	Postdoctoral Fellow, Department of Biology, Penn State University
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

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## PUBLICATIONS

[PubMed](#) [Google Scholar](#)

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. *Accepted, Cell Reports; available on BioRxiv*
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*

- See also PSU news story: <https://www.psu.edu/news/research/story/mouse-models-adolescent-binge-drinking-reveal-key-long-lasting-brain-changes/>
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*
  29. Griffith & Crowley [corresponding author]. An innovative approach to examining the role of neurotransmitters in fear circuitry. *Neuropsychopharmacology*.
  28. Crowley & Medina [corresponding author] (2022). Targeted and transient opening of the blood brain barrier in discrete neurocircuits and brain regions. *Neuropsychopharmacology*
  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*
  26. Sicher, Duerr, Starnes, & Crowley [corresponding author] (2022). Adolescent alcohol and stress exposure rewires key cortical neurocircuitry. *Frontiers in Neuroscience*
  25. Crowley & Joffe [co-corresponding authors] (2021). Developing breakthrough psychiatric treatments by modulating G protein-coupled receptors on prefrontal cortex somatostatin interneurons. *Neuropsychopharmacology*
  24. Dao, Brockway, Suresh Nair, Sicher, & Crowley [corresponding author] (2021). Somatostatin neurons control an alcohol binge drinking prelimbic microcircuit in mice. *Neuropsychopharmacology*
    - 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*
  22. Brockway & Crowley [corresponding author] (2020). Turning the 'tides on neuropsychiatric diseases: the role of peptides in the prefrontal cortex. *Frontiers in Behavioral Neuroscience*
  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*
  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*
  19. Dao, Brockway, & Crowley [corresponding author] (2019). In vitro optogenetic characterization of neuropeptide release from prefrontal cortical somatostatin neurons. *Neuroscience*
  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*
  17. Feng, Crowley, Patel, Guo, Bugni, & Luscher (2019). Reversal of a treatment-resistant, depression-related brain state with the Kv7 channel opener retigabine. *Neuroscience*
  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*
  15. Lowery-Gionta\*, Crowley\* [Co-First Authorship], Bukalo\*, Silverstein, Holmes, & Kash (2018). Chronic stress dysregulates amygdalar output to the prefrontal cortex. *Neuropharmacology*
  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*
  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*

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*
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*
10. Vardy, Robinson, Li, Olsen, DiBerto, Sassano, Huang, Zhu, Urban, Rittiner, Crowley, Pleil, Song, Kash, Malanga, Krashes, & Roth (2015). A DREADD for multiplexing chemogenetic interrogation of neural circuits. *Neuron*
9. Crowley & Kash (2015). Kappa opioid receptor signaling throughout the brain: Involved circuitry and implications for treatment. *Progress in Neuro-psychopharmacology and Biological Psychiatry*
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*.
7. Kash, Pleil, Marcinkiewicz, Lowery-Gionta, Crowley, Mazzone, Sugam, Hardaway, & McElligott (2014). Neuropeptide signaling in the BNST. *Molecules and Cells*
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*
5. DePoy, Daut, Wright, Camp, Crowley, Noronha, Lovinger, & Holmes (2014). Chronic alcohol alters reward behaviors and striatal plasticity. *Addiction Biology*
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*
3. Crowley, Cody, Davis, Lovinger, & Mateo (2013). Chronic methylphenidate exposure during adolescence reduces striatal synaptic responses to ethanol. *European Journal of Neuroscience*
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*
1. Mathur, Capik, Alvarez, & Lovinger (2011). Serotonin-mediated competitive long-term depression at corticostriatal synapses. *Journal of Neuroscience* // paper published under maiden name

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## PUBLICATIONS – SUBMITTED/IN REVISION/PREPRINTS

- [XX] Seemiller, Cuadra, Smith & Crowley [corresponding author]. Unraveling the interaction between lifetime exposure to alcohol, stress, and neurodegeneration. *Invited review*
- [XX] Brockway and Crowley [corresponding author]. Emerging targets for alcohol use disorder. *Invited review*

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## FUNDING

### CURRENT FUNDING

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

*Prelimbic somatostatin peptide signaling in binge ethanol consumption*

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

R01 NIA/NIH administrative supplement (Award #3R01AA029403-01A1) 2023-2024 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: Patrick Drew, PSU Engineering Science and Mechanics; Marty Sliwinski, PSU Human Development and Family Studies; Elizabeth Proctor, Neurosurgery)

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: David Jentsch)

NIAAA/NIH 2019-2023  
National Institutes of Health LRP (2<sup>nd</sup> renewal award)  
*Investigation of key pathways modulated by juvenile chronic variable social stress*  
Role: PI

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## SUBMITTED FUNDING

R21 NINDS/NIMH 2024-2026  
*Peptidergic control over prefrontal cortical circuits engaged in exploratory behavior*  
Role: contact PI (MPI: Dr. Patrick Drew, PSU Engineering Science and Mechanics)

F32 NRSA NIAAA/NIH 2023-2026  
*Sex differences in transcriptomics, cell dynamics, and behavior after adolescent binge drinking in mice*  
PI: Dr. Laurel Seemiller  
Role: Sponsor. Co-Sponsor: Dr. Patrick Drew  
A0 Priority score: 36

R01 NIAAA/NIH 2024-2029  
*Sex dependent shifts in behavioral profiles and cortical signaling following adolescent binge drinking*  
Role: contact PI (MPI: Dr. Nanyin Zhang, PSU Biomedical Engineering)

R01 NIA/NIH 2023-2028  
*Immunometabolic dysfunction in the APOE4 brain*  
Role: co-I (PI: Dr. Elizabeth Proctor, PSU College of Medicine)

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## COMPLETED FUNDING

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

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#### GRADUATE STUDENT and POST DOC FELLOW-LED FUNDING

T32 Award NIGMS/NIH Physiological Adaptations to Stress (Award #T32GM108563) 2023-2025  
PI: Julio Flores Cuadra, Neuroscience PhD Program  
Role: co-Mentor

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

F31 NRSA NIAAA/NIH (Award #F31AA0304550-01) 2022-2025 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. Impact Score: 30.

- See also: <https://www.psu.edu/news/research/story/neuroscience-grad-student-awarded-grant-study-adolescent-binge-drinking/>

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*

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## INVITED PRESENTATIONS, SEMINARS, ETC.

2024

- (*committed*) Alcohol and the Nervous System Gordon Research Conference. Galveston TX February 2024

2023

- Research Society on Alcohol, 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, San Diego, CA April 2023
- Department of Neurobiology & Anatomy, Drexel University, Philadelphia PA, March 2023

2022

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

2021

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

2020

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

2019

- Integrative Neuroscience Research Center Seminar, Marquette University, Milwaukee WI October 2019
- Department of Biology, Pennsylvania State University, 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. Laurel Seemiller	PhD in Molecular, Cellular, and Integrative Biosciences	2022-present
Dr. Dakota Brockway	PhD in Neuroscience	2023-present

#### Current Graduate Students (Primary Mentor)

Victoria Nudell	MCIBS; MD/PhD MSTP with PSU College of Medicine	2023-present
Julio Flores Cuadra	Neuroscience PhD Program <i>Physiological Adaptations to Stress T32 Fellow</i> <i>Huck Graduate Fellow</i> <i>Jointly mentored with Dr. Patrick Drew</i>	2022-present
Grace Smith	Biomedical Engineering MS Program <i>PSU University Graduate Fellow</i>	2022-present
Avery Sicher	Neuroscience PhD Program <i>NIH NRSA Fellow</i> <i>Physiological Adaptations to Stress T32 Fellow</i> <i>Huck Graduate Fellow</i>	2020-present

#### Graduate Students (Primary Mentor) - Graduated

Dakota Brockway	Neuroscience PhD Program Thesis: <i>The Role of Somatostatin in the Prefrontal Cortex</i> <i>Huck Graduate Fellow</i>	2018-2023
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#### Graduate Students (Dissertation Committee Member)

Shubham Mirg	Biomedical Engineering (PI: Kothapalli)	2023-present
Denver Greenawalt	MCIBS (PI: Drew)	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- present
Tong Jiang	Biology (PI: Luscher)	2021-present
Laurel Seemiller	MCIBS (PI: Gould)	2020- 2022

Graduate Students (Rotation Mentor)

Gretchen Pifer	Biology (PI: Kwapis)	2022
Haley Guffey	Integrative and Biomedical Physiology PhD Program	2022
Doris Olekanma	Neuroscience PhD Program	2022
Spencer Chase	Neuroscience PhD Program	2022
Farzad Azarmi	Bioengineering PhD Program (PI: Zhang)	2022
Kathleen Meeks	Neuroscience PhD Program (PI: Geier)	2021

Undergraduate Student (Primary Mentor)

Blake Baughman	Biology (Schreyer Honors College) <i>Co-advised with Mike Russel, BBH</i>	2023-present
Sophie Anderlind	Biology (Schreyer Honors College)	2023-present
Anushka Rajmohan	Biomedical Engineering	2023-present
Erin Wolfanger	Biology (Schreyer Honors College)	2023-present
Obi Nnabugwu	Biomedical Engineering (Clark Scholar)	2022-present
Andrew Kacala	Biology (Schreyer Honors College)	2021-present
Matthew Springer	Biology (Schreyer Honors College)	2021-present

Undergraduate Students (Primary Mentor) - Graduated

David Starnes	Biology (Schreyer Honors College) next: medical student, Cooper Rowan	2019-2023
Renee Laurenzana	Biological Sciences (SROP with Cal State San Marcos) Next: Neuroscience PhD Program, ASU	2022
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

Other previous trainees

Grace Smith	Research Technician Currently: PSU Biomedical Engineering program	2021-2022
Nigel Dao	Research Technician Currently: NYU PhD program (PI: Adam Carter)	2018-2021



Malini Suresh Nair                      Research Technician                      2020-2021  
Currently: Wake Forest Medical School MD Program

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

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

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UNDERGRADUATE STUDENT-LED FUNDING AND AWARDS

*All undergraduate awards have always been used 100% to support student stipends*

2023

- Engineering Undergraduate Scholarship, Awarded to Obi Nnabugwu (Crowley: faculty mentor), \$5,000
- Eberly Exhibit Award, 1<sup>st</sup> 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, 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 (SEN), 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

2023-present BIO/BBH 469 Cellular and Molecular Neuroscience  
 2021-present Neuro521 Systems Neuroscience Course Director & Instructor  
 2020 Neuro521 Systems Neuroscience

### GRADUATE TRAINING GRANT PARTICIPATION

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 Training Faculty, Cross Disciplinary Neural Engineering T32 (weekly meetings/ 1-2 lectures per semester)  
 2021-2022 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  
 2016-2023 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

2023 NIAAA Young Investigator Award  
 Special NIAAA Meeting "*Alcoholism and Stress: a Framework for future treatment strategies*"  
 (Volterra Meeting, May 2023)  
 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)  
 American College on Neuropsychopharmacology (ACNP)  
 Senior Investigator Travel Award Recipient (*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*

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## SERVICE & OUTREACH

### EXTERNAL

- 2023 NIH Reviewer- Study Section: Special Emphasis Panel, Fellowship Applications ZAA1 GG (32); 2/2023  
NIH Reviewer- Study Section: NIDA Special Emphasis Panel; ZDA1 MXS-T (O2) 1); 6/2023
- 2022 NIH Reviewer- Study Section: Special Emphasis Panel ZAA1 DD (04)); 3/2022 and 11/2022
- 2022 Reviewer, Swiss National Science Foundation
- 2021 NIH Reviewer- Study Section: Special Emphasis Panel [ZAA1 DD (04)]
- 2019 Early Career Reviewer, NIH Center for Scientific Review (Study Section: NAL)
- 2017 Guest speaker, Westfield High School, Chantilly Virginia
- 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

### INTERNAL

2023 PSU 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 Eberly College of Science Leadership Fellow (Dean's Office)

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)

2022 The Huck Institutes of the Life Science HITS (Huck Innovative and Transformative Seed Funds) grant reviewer and panelist

2022 Junior Faculty Advisory Committee to PSU Interim Vice President & Provost Justin Schwartz *selected as Eberly College of Science representative*

2021 Biomedical Engineering Graduate Program Admissions Committee

2021 Biology Graduate Program Admissions Committee

2019 -present Neuroscience Graduate Program Admissions Committee

2021 Biology Department Graduate Admissions Committee

2017 PSU Smoke Free Task Force (*silent observer*)

2017 PSU Communications and Onboarding Working Group (Research Computing and Cyberinfrastructure Advisory Council to the Provost)

2016-Present PSU Program for Translation Research on Adversity and Neurodevelopment (P-TRAN)

2016-Present PSU Undergraduate Neighbor-Neighbor Outreach

### DEI-RELATED TRAINING AND ACTIVITIES

2022-2023 PSU Summer Research Opportunities Program Mentor

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

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### PROFESSIONAL ACTIVITIES

*Ad Hoc Journal Reviewer*  
Alcohol  
Journal of Neuroscience  
Nature Communications  
Neurobiology of Stress  
Neuropsychopharmacology  
Neuropharmacology  
Physiology and Behavior  
Psychopharmacology

*Society Memberships* 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)