Cherish Ardinger

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Education

2018 - present
Indianapolis, IN
Doctoral Student, Addiction Neuroscience
Indiana University-Purdue University Indianapolis (IUPUI)

2018 – 2020
Indianapolis, IN
Master of Science, Psychology
Indiana University-Purdue University Indianapolis (IUPUI)

2014 - 2016
Towson, MD
Master of Arts, Experimental Psychology
Towson University

2010 - 2014
Towson, MD
Bachelor of Science, Psychology
Towson University
Cum Laude, Psychology Departmental Honors
Minor in LGBT (Lesbian, Gay, Bisexual, Transgender) Studies

Research Experience

2018 – Present
Indianapolis, IN
IUPUI
Addiction Neuroscience Doctoral Student
Mentors: Drs. Christopher Lapish and Nicholas Grahame
Current Research Interests: **I have a strong interest in understanding the physiological phenomena that underlie behavior.** Specifically, I am interested in studying the neurobiological causes of and identifying novel treatments for addiction. To date, my graduate research has pursued this goal through the following main projects: (1) Identifying changes in corticostriatal theta as a result of repeated binge drinking (master's thesis project) (2) Using within-session binge drinking patterns to assess reaction to reward loss in replicate lines of high-alcohol-preferring (HAP) mice (3) Identifying the relationship between genetic risk for AUD and behavioral flexibility and (4) targeting α2-adrenoceptors to decrease alcohol intake in HAP mice.
Skill set: I have gained experience in the creation of custom electrophysiology electrodes, use of MATLAB software for awake-behaving electrophysiology data analysis, stereotaxic surgery (including implantation of electrophysiology probes, optogenetics probes, and targeted viral injections), use of OpenEphys software, collection of retro-orbital sinus bloods, use of Analox to calculate blood ethanol concentrations, use of volumetric drinking monitor system, perfusions, cryosectioning, immunohistochemistry to identify electrode and virus placement, manuscript preparation, behavioral testing: attentional set shifting, drinking-in-the-dark, two-bottle choice, and I am actively involved in the mentorship of undergraduate students.

2015 – 2018
Edgewood, MD
Aberdeen Proving Ground
U.S. Army Medical Research Institute of Chemical Defense (USAMRICD)
Oak Ridge Institute for Science and Education (ORISE) Fellow
Mentor: John H. McDonough, PhD
Projects: Dr. McDonough's research program primarily focuses on identifying novel treatments for nerve agent-induced seizures. During my fellowship, I worked on several projects toward this goal: (1) Amelioration of soman-induced neuropathology in rats with NAAG-related compounds (2) Rat and guinea pig models of nerve agent intoxication to evaluate delayed treatment with novel anticonvulsants (3) Pediatric susceptibility of rats to nerve agent-induced seizures and effectiveness of anticonvulsant treatments (4) Investigation of individual differences in mouse strains in response to nerve agent exposure (5) Therapeutic evaluation of clinically approved antiepileptic drugs to treat spontaneous recurrent seizures following nerve agent exposure in mice

Skill set: I coordinated projects 1 and 2, including preparing data presentations for collaborators outside of the institute and helping our team manage benchmark timelines. I am proficient in EEG interpretation (use of Spike2 software, identification of seizure onset and termination), euthanasia, perfusion, brain extraction, injections, animal handling and observation, drug preparation (dose calculations, syringe preparation), rat pup weaning and sexing, brain dissection, homogenization, histopathology evaluation, and data analysis. I also provided training to other laboratory members on stereotaxic surgery (EEG lead and cannula implantation) in rats (pediatric and adult), mice, and guinea pigs.

2012 – 2016
Towson, MD

Behavioral Neuroscience Laboratory, Towson University
Undergraduate and Graduate Thesis Student
Mentor: Paul Pistell, PhD
Master's Thesis project: The use of 3-nitropropionic acid to create a model of aging in mice
Undergraduate Honors Thesis project: Creation of a peripheral lesion model to examine age-associated learning and memory deficits in mice
Skill set: I am proficient in running Stone T-Maze trials (including the use of AnyMaze software) and rotarod trials; as well as drug preparation (dose calculations, syringe preparation), injections, euthanasia, perfusions, brain extraction, mouse colony husbandry, mouse pup weaning and sexing, and data analysis. I also provided training of other lab members (behavioral testing, perfusions, and brain extraction).

2009 – 2011
Frederick, MD

Laboratory of Molecular Immunoregulation, The National Cancer Institute
Student Intern
Mentors: Drs. Katie Stagliano and Arthur Hurwitz
Project: Validation of a prostate-specific STAT3C expression construct
Skill set: I performed DNA isolation, PCR, RNA isolation, cDNA synthesis, QPCR, micro-dissection of mouse prostates, western blotting, ELISA, and cell transfections.

2012 – 2014
Towson, MD

Gender Identity and Sexuality Lab, Towson University
Research Team Member
Mentor: M. Paz Galupo, PhD
Project: Masculinity, femininity, and the gendered presentation of egg and sperm donors
Skill set: I am proficient in data collection and analysis, and coding items.

Publications

https://www.ncbi.nlm.nih.gov/myncbi/cherish.ardinger.1/bibliography/public/

1) **C. Ardinger,** G. Winkler, C. C. Lapish, and N. J. Grahame (2021). Effect of ketamine on binge drinking patterns in crossed high alcohol-preferring (cHAP) mice. *Alcohol*. PMID: 34547429

2) **C. Ardinger**, N. J. Grahame, C. C. Lapish, D. N. Linsenbardt (2020). High Alcohol Preferring Mice Show Reaction to Loss of Ethanol Reward Following Repeated Binge Drinking. *Alcoholism: Clinical and Experimental Research (ACER).* PMID: 32865852.

- ***Chosen by ACER as an Article of Public Interest.*** *Coverage: https://www.newswise.com/articles/heavy-drinking-rodents-enhance-understanding-of-problematic-alcohol-use-patterns*

3) H. S. McCarren, M. Eisen, D. Nguyen, P. Dubee, **C. Ardinger,** E. Dunn, K. Haines, A. Santoro, P. Bodner, C. Ondeck. C. Honnold, J. H. McDonough, P. Beske, P. McNutt. (2020). Characterization and treatment of spontaneous recurrent seizures following nerve agent-induced status epilepticus in mice. *Epilepsy Research.* PMID: 32182542

4) E. Dunn, L. Matson, K. Haines, K. Whitten, R. B. Lee-Stubbs, K. Berger, H. S. McCarren, **C. Ardinger**, C. Jackson-Piercy, S. M. Miller-Smith, J. H. McDonough. (2020). Evaluation of fosphenytoin,

levetiracetam and propofol as treatments for nerve agent-induced seizures in pediatric and adult rats. *Neurotoxicology.* PMID: 32220603

5) C. Jackson*, **C. Ardinger***, J. H. McDonough, H. S. McCarren (2019) Validating a model of nerve agent-induced status-epilepticus by evaluating the anticonvulsant and neuroprotective effects of scopolamine, memantine, and phenobarbital. *Journal of Pharmacological and Toxicological Methods.* PMID: 30790623 *contributed equally

6) L. Matson, E. Dunn, K. Haines, S. Miller-Smith, R. Lee-Stubbs, K. Whitten, **C. Ardinger**, H. McCarren, J. H. McDonough. (2019). Evaluation of first line anticonvulsants to treat nerve agent-induced seizures and prevent neuropathology in adult and pediatric rats. *Toxicology*. PMID: 31362008

7) H. S. McCarren, J. Arbutus, **C. Ardinger**, E. Dunn, C. Jackson, J. H. McDonough (2018) Dexmedetomidine stops nerve agent-induced status epilepticus. *Epilepsy Research.* PMID: 29414381

8) K. Haines, L. Matson, E. Dunn, **C. Ardinger**, D. Bibi, J. H. McDonough, M. Bialer (2018) Comparative efficacy of valnoctamide and sec-butylpropylacetamide (SPD) in terminating nerve agent-induced seizures in pediatric rats. *Epilepsia.* PMID: 30615805

9) L. Matson, R. B. Lee-Stubbs, L. Cadieux, J. A. Koenig, **C. Ardinger**, J. Chandler, E. A. Johnson, H. M. Hoard-Fruchey, T.M. Shih, J. H. McDonough (2018) Assessment of mouse strain differences in baseline esterase activities and toxic response to sarin. *Toxicology*. PMID: 30172647

Talks

1) **C. Ardinger.** High alcohol preferring mice may represent a rodent model of high intensity drinking (Mar 2021). Virtual presentation at the *IUPUI, Wake Forest, and Medical University of South Carolina Alcohol Research Center (ARC) Trainee Showcase.*

2) **C. Ardinger.** High alcohol-preferring mice show reaction to loss of ethanol reward following repeated binge drinking (Feb 2021). Virtual presentation of my manuscript at the *University of Texas Health Science Center at San Antonio Addiction Journal Club.*

Conference Presentations

1) S. D. Weir, **C. Ardinger,** & C. C. Lapish (Mar 2021). A machine learning algorithm to identify bouts of drinking in rodent voluntary consumption studies. Poster presented virtually at the *Greater Indiana Society for Neuroscience.*

2) G. A. Winkler, **C. Ardinger,** C. C. Lapish, N. J. Grahame (Jun 2021). Effect of ketamine on binge drinking patterns in crossed high alcohol preferring mice. Poster presented virtually at the *Research Society on Alcoholism* Conference.

3) **C. Ardinger,** C. C. Lapish, N. J. Grahame, & D. N. Linsenbardt (Jun 2020) Binge drinking ethanol is associated with changes in corticostriatal electrophysiology. Poster presented virtually at the *Research Society on Alcoholism* Conference.

4) **C. Ardinger**, C. C. Lapish & D. N. Linsenbardt (Oct 2019) Assessing the impact of excessive alcohol consumption on corticostriatal function in mice. Poster presented at the *Society for Neuroscience* Conference, Chicago, IL.

5) **C. Ardinger** & D. N. Linsenbardt (Jun 2019) Differences in the rate of binge drinking between replicate lines of high alcohol preferring (HAP) mice. Poster presented at the *Research Society on Alcoholism* Conference, Minneapolis, MN.

6) A. Ward, B.T. Freeman, **C. Ardinger**, and D.N. Linsenbardt (Mar 2019) cHAP mice are less sensitive to the motor depressing actions of alcohol compared to B6 mice. Poster presented at the *Greater Indiana Chapter Society for Neuroscience* Annual Meeting, Indianapolis, IN.

7) D. Nguyen, M. Eisen, **C. Ardinger**, E. Dunn, K. Haines, A. Santoro, P. Bodner, C. Ondeck, P. Dubee, H. McCarren, P. Beske, P. McNutt (Mar 2019) Evaluation of repurposed antiepileptic drugs to treat spontaneous recurrent seizures in instrumented male C57BL/6 mice following a sublethal soman exposure. Poster presented at *Society of Toxicology's* Annual Meeting, Baltimore, MD.

8) H. S. McCarren, **C. Ardinger,** P. Bodner, P. Dubee, E. Dunn, M. Eisen, K. Haines, D. Nguyen, A. Santoro, P. McNutt (Nov 2019) Optimizing a mouse model of severe nerve agent intoxication for long-term survivability incidence of neuropathology, and emergence of spontaneous recurrent seizures. Poster presented at *Society for Neuroscience's* Annual Meeting, San Diego, CA.

9) **C. Ardinger,** C. Jackson, J. H. McDonough, H. S. McCarren (May 2018) Validation of the CounterACT Neurotherapeutics Screening (CNS) program model. Poster presented at *Bioscience Review: Advances in Medical Chemical Defense*, Edgewood, MD.

10) H. S. McCarren, J. Arbutus, **C. Ardinger,** E. Dunn, C. Jackson, J. H. McDonough (May 2018) Dexmedetomidine as a countermeasure for nerve agent-induced status epilepticus. Talk given at *Bioscience Review: Advances in Medical Chemical Defense*, Edgewood, MD.

11) E. Dunn, **C. Ardinger,** M. Eisen, K. Haines, D. Nguyen, A. Santoro, H. S. McCarren, P. McNutt (May 2018) The development of a long-term survivable mouse model to treat spontaneous recurrent seizures following nerve agent exposure. Poster presented at *Bioscience Review: Advances in Medical Chemical Defense*, Edgewood, MD.

12) C. Jackson*, **C. Ardinger**, D. Ballough, H. Craigh, J. H. McDonough. H. S. McCarren (Nov 2017) Validating a nerve-agent induced seizure model by evaluating the anticonvulsant and neuroprotective effects of scopolamine, memantine, phenobarbital and ganaxolone. Poster presented at the *Society for Neuroscience* Conference, Washington, D. C. * Contributed equally

13) J. McCabe, B. Slusher, J. H. McDonough, **C. Ardinger,** A. Alqazzaz, J. Vaughan, C. Jackson, K. Winter, H. S. McCarren, H. Xi, J. Liu, R. Rais (Jun 2017) Amelioration of soman-induced neuropathology with NAAG-related compounds. Poster presented at *NIH Countermeasures against Chemical Threats (CounterACT) Meeting,* Boston, MA.

14) L. Matson, E. Scholl, K. Haines, **C. Ardinger,** E. Dunn, P. Roper, N. Simon, E. Mattias, J. H. McDonough, E. Dudek (Jun 2017) Evaluation of anticonvulsants to treat nerve agent and pesticide-induced seizures and prevent brain damage in pediatric rats. Poster presented at *NIH Countermeasures against Chemical Threats (CounterACT) Meeting,* Boston, MA.

15) H. S. McCarren, P. Beske, M. Eisen, D. Nguyen, **C. Ardinger,** E. Dunn, J. H. McDonough, P. McNutt (Jun 2017) Therapeutic evaluation of clinically approved antiepileptic drugs to treat spontaneous recurrent seizures following nerve agent exposure. Poster presented at *NIH Countermeasures against Chemical Threats (CounterACT) Meeting,* Boston, MA.

16) H. Craig, J. Chandler, L. C. Cadieux, **C. Ardinger, J. Koenig,** H. S. McCarren, Z. Canter, H. Hoard-Fruchey, T-M, Shih, E. Johnson, D. Cerasoli, J. H. McDonough, L. Matson (Jun 2017) Evaluation of mouse strain differences in esterase and nerve agent-induced toxicity. Poster presented at *Military Health System Research Symposium,* Kissimmee, FL.

17) H. S. McCarren, J. Arbutus, **C. Ardinger,** E. Dunn, C. Jackson, J. H. McDonough (Mar 2017) Combined stimulation of α2-adrenoceptors and GABAA receptors abruptly terminates soman-induced status epilepticus. Poster presented at *Gordon Research Conference: Chemical & Biological Terrorism Defense,* Ventura, CA.

18) **C. Ardinger,** H. S. McCarren, J. Liu, H. Xi, R. Rais, B. Slusher, J. McCabe, J. H. McDonough (Mar 2017). Assessing the neuroprotective potential of 2-PMPA in rats exposed to soman (GD). Poster presented at *Society of Toxicology's Annual Meeting,* Baltimore, MD.

19) K. Haines, L. Matson, **C. Ardinger,** E. Dunn, H. S. McCarren, S. M. Miller-Smith, J. H. McDonough (Mar 2017). Evaluation of midazolam and diazepam to treat nerve agent-induced seizures in pediatric and adult rats. Poster presented at *Society of Toxicology's Annual Meeting,* Baltimore, MD.

20) H. S. McCarren, **C. Ardinger,** E. Dunn, S. M. Miller-Smith, J. H. McDonough (Dec 2016) Evaluation of five anticonvulsants in a pediatric rat model of nerve agent-induced epilepticus. Poster presented at *American Epilepsy Society's Annual Meeting,* Houston, TX.

21) **C. Ardinger,** E. Dunn, K. Gyenai, H. S. McCarren, S. M. Miller-Smith, J. H. McDonough (Jun 2016) The ability of common anticonvulsants to treat nerve agent-induced seizures in pediatric rats. Poster presented at *Bioscience Review: Advances in Medical Chemical Defense,* Edgewood, MD.

22) **C. Ardinger,** K. Haines, P. Pistell (May 2016) A comparison of 3NP dosing schedules to create an accelerated aging model in mice. Poster presented at *Association for Psychological Science's (APS)* Conference, Chicago, IL.

23) K. Haines, **C. Ardinger,** P. Pistell (Apr 2015) The use of 3-Nitropropionic acid to create an aging model in mice. Poster presented at *The Student Research Expo, Towson University,* Towson, MD.

24) **C. Ardinger,** K. Haines, J. Barry, L. Hyang, S. Peters, P. Pistell (Mar 2014) Evaluation of 3NP as a model of memory impairment in the mouse Stone T-maze. Poster presented at *Hunter College Psychology Convention,* New York City, NY.

25) **C. Ardinger,** C. R. Boyer, K. R. V. Sekely, A. M. Hackl, M. P. Galupo (May 2013) Attractive eggs and strong sperm: Online presentation of egg and sperm donors. Poster presented at *Association for Psychological Science's (APS) Conference,* Washington, D. C.

26) **C. Ardinger,** K. R. Valliere, A. M. Hackl, C. R. Boyer, M. P. Galupo (Apr 2012) Beauty and passivity, now let's talk viability: Femininity and gendered presentation of egg donors. Poster presented at *The Student Research Expo, Towson University,* Towson, MD.

Teaching Experience

Fall 2020 — **IUPUI**
Graduate Teaching Assistant: Systems Neuroscience (Psychology 301)
Mentor: Charles Goodlett, PhD
Skill set: I assisted the instructor in successfully shifting the course from an in-person to hybrid format due to COVID-19. I graded written essay exams, prepared interactive activities for, and led twice-weekly lecture sessions.

Spring 2019 — **IUPUI**
Graduate Teaching Assistant: Service-Learning Capstone in Psychology (Psychology 456)
Mentor: Katherine Adams, PhD
Skill set: I engaged students in small group discussions relating lessons from their service work to course readings. I assisted student groups in gathering relevant literature and applying their findings to their specific client population to share a research project about their service-learning experience in the form of a poster presentation at the University's *Capstone Poster Day* at the end of the semester (held virtually due to COVID-19).

Fall 2018
Spring 2018
Fall 2019 — **IUPUI**
Graduate Instructor: Research Methods Laboratory (Psychology 312)
Mentor: Robert Stewart, PhD
Skill set: I taught a laboratory designed to help students write their own APA-style research papers. I taught students the processes of literature review, creating survey measures, collecting and analyzing their own data (using SPSS), and drawing conclusions based upon their results. I was responsible for grading and

providing feedback on weekly in-class exercises, drafts, presentations, and final papers. I taught students effective ways to present their findings in a seminar format. I also maintained the Canvas site, responded to student emails, and held office hours.

Fall 2019 **IUPUI**
Graduate Teaching Assistant: Research Methods Lecture (Psychology 311)
Mentor: Robert Stewart, PhD
Skill set: I was responsible for grading and providing feedback on weekly homework assignments for approximately 100 students. In addition, I responded to student emails and assisted the professor in the creation of assignments and maintenance of the Canvas site.

Fall 2017 **Towson University**
Spring 2018 *Adjunct Professor: Behavioral Statistics (Psychology 212)*
Skill set: I created a syllabus, coursework, and exams to teach students the foundational theory of statistics as well as common data analytic concepts such as measures of central tendency, *t*-tests, correlations, ANOVA, and ways to analyze categorical data. I also taught students the basic functions of SPSS and how to share their findings using APA format. Emphasis was placed on when it is appropriate to use each statistical test based upon the type of data that is being worked with.

Feb 2017 - Jul 2018 **USAMRICD,** within Dr. McDonough's laboratory
Surgery Trainer
Skill set: I became an expert in stereotaxic rat (adult and pup) and mouse EEG lead implantation surgery and was approved by the institute's veterinary team to train other laboratory members to perform these surgeries. I taught our team aseptic technique, subject surgical preparation, surgical techniques, ways to troubleshoot issues, anesthesia regulation, suturing, and post-operative care.

Spring 2016 **Towson University**
Graduate Teaching Assistant: Sex Differences (Psychology 447)
Mentor: M. Paz Galupo, PhD
Skill set: I graded weekly journals, facilitated classroom and small group discussions, prepared and graded exams, lead exam review sessions, held office hours, maintained the class website (BlackBoard), and responded to student emails.

Fall 2013 **Towson University**
Undergraduate Teaching Assistant: Introduction to Psychology (Psychology 101)
Mentors: Drs. David Earnest and Elizabeth Katz
Skill set: I kept attendance records, lead discussions, and graded weekly assignments.

Fall 2012 **Towson University**
Undergraduate Teaching Assistant: Introduction to LGBT Studies (LGBT 101)
Mentor: Loraine Hutchins, PhD
Skill set: I lectured, lead exam review sessions, assisted in the preparation of materials for class activities, and responded to student emails.

Selected Workshops

July 2020 **Neuromatch Academy**
Online *Interactive Track Student*
I worked closely with a small group of other students from different institutions, guided by a teaching assistant, using open-source data to complete a computational modeling project over the three-week course. In addition to this

collaborative project, the group and I worked closely together to work through tutorials to learn about various data analysis techniques, neural modelling, and deep learning (syllabus: https://github.com/NeuromatchAcademy/course-content). Certificate of completion available upon request.

Jul – Aug 2020
IUPUI

Psychology 595: Seminar in Teaching
Student
This optional, one-credit summer course serves as a workshop for students interested in developing teaching skills. As a student in this course, I learned about and discussed concepts such as Bloom's Taxonomy, backwards course design, and the 'Transparency in Learning and Teaching Format.' I implemented these and other pedagogical ideas through creating a rubric, an assignment, a syllabus, and teaching a sample lesson to the class. I further improved my teaching through receiving and giving feedback to peers on these assignments throughout the course.

Mentoring and Community Outreach

2019 - Present
Online

Skype-a-Scientist
Guest Lecturer
I typically engage with 2-3 K-12 classrooms per semester.

2019 – Present
Online

Tiger Mentor Network: Towson University (TU)
Mentor
I help current TU students interested in graduate school through providing feedback on personal statements, CVs, and conducting mock interviews. Through this program, I mentor 2-3 students per application season.

During my time at IUPUI, I have mentored (and continue to mentor) several undergraduate and IUPUI Post Baccalaureate Research Education Program (IPREP) fellows, all of whom have gained enough laboratory experience to present first-author posters showcasing their research at local conferences **(mentees in bold):**

1) **K. Echeumuna,** S. Derisse, C. Ardinger, and N. M. Timme (Oct 2021). Alcohol and Water Drinking Patterns in Mice. Talk presented virtually at the *Louis Stokes Midwest Regional Center of Excellence Conference*
-Mentee Kelechi Echeumuna's abstract was selected within the top 25

2) **S. D. Weir**, C. Ardinger**,** & C. C. Lapish (Apr 2021). A machine learning algorithm to identify bouts of drinking in rodent voluntary consumption studies. Poster presented virtually at the *Greater Indiana Society for Neuroscience* conference
-Mentee Seth Weir was awarded Best Undergraduate Poster

3) **R. Pittman,** C. Ardinger, & N. J. Grahame (Apr 2021). Differences in behavioral flexibility in HAP3 versus LAP3 mice. Poster presented virtually at the *IUPUI Engaged Learning Showcase.*

4) **A. Ward,** B. T. Freeman, C. Ardinger, & D. N. Linsenbardt (Apr 2019). cHAP mice are less sensitive to the motor depressing actions of alcohol compared to B6 mice. Poster presented at the *Greater Indiana Society for Neuroscience* conference, Indianapolis, IN.

Service / Leadership

June 2021 – Present

Graduate Out in Science, Technology, Engineering and Math (GoSTEM)
Undergraduate Liaison and Reservationist
GoSTEM seeks to encourage the success of LGBTQ+ students in STEM through both personal and professional development. We aim specifically at developing leadership skills through scientific outreach to the community, mentorship for at

risk LGBTQ+ youth, and advocacy for creating policies and procedures in the IU School of Medicine and IUPUI that prevent discrimination against faculty, students and post-doctoral staff based on LGBTQ+ status.

May 2021 – Present **Supporting Truth About Animal Research (STAR) Committee**
Research Society on Alcoholism Representative
STAR is a coalition of scientific societies that aim to educate and promote the ethical use of animals in research.

Dec 2020 – Present **Animal Research and Ethics Committee: Research Society on Alcoholism**
Member
The mission of the Animal Research and Ethics Committee is to review and discuss topics related to the humane, ethical use of animals in biomedical research and to increase awareness among the RSA membership of the growing number of challenges that are being directed at investigators who study alcoholism and other addictive disorders. The committee also serves as a liaison between STAR (described above) and RSA members.

Feb 2020 – Present **Ad Hoc Peer-Review**
Journal of Neuroscience, Addiction Biology and *Behavioural Processes*.

Honors and Awards

Oct 2019 **School of Science Graduate Student Council Travel Grant** (IUPUI)
Used to present data at the *Society for Neuroscience* meeting, Chicago, IL

May 2019 **Research Society on Alcoholism (RSA) Student Merit Award**
Used to present data at the *RSA* meeting, Minneapolis, MN

Dec 2012-Present **Psi Chi**, International Honors Society in Psychology, member

May 2013 **Undergraduate Student Travel Award** (Towson University)
Used to present data at the *Association for Psychological Science's* meeting, Washington, D.C.

Jan 2013 **Undergraduate Research Grant** (Towson University)
Used for Honors Thesis Project: Creation of a peripheral lesion model to examine age-associated learning and memory deficits in mice

Software Skills

Data Analysis and Presentation:

- MATLAB
- GraphPad Prism
- SPSS
- Python
- Adobe Photoshop

Data Collection Software:

- OpenEphys (awake-behaving ephys)
- AnyMaze
- Spike2 (EEG recording software)
- FIJI
- Nikon NIS Elements (fluorescent microscopy)

References

Christopher C. Lapish, PhD
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John H. McDonough
USAMRICD, Neuroscience Branch
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