


Amanda Acuña

CURRICULUM VITAE

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EDUCATION

Interdisciplinary Graduate Program in Neuroscience PhD Candidate

Expected graduation: May 2026

School of Life Sciences, Arizona State University

Mentor: M. Foster Olive, Addiction Neuroscience Laboratory

Scientific Teaching in Higher Education Certificate

Completed: May 2025

School of Life Sciences, Arizona State University

Concurrent Bachelor of Science: Neuroscience and Psychology

May 2021 | Summa cum laude

College of Liberal Arts and Sciences, Arizona State University

Barrett, the Honors College, Arizona State University

Mentor: Cheryl Conrad, Neuroscience in Stress Laboratory

UNIVERSITY TEACHING EXPERIENCE

Instructor | Arizona State University

1. NEU 494 Psychiatric Medications in person – Spring 2025, Fall 2025, Psychology

Designed and developed coursework to foster critical thinking and student engagement by utilizing evidence-based teaching practices. These included:

- Active learning group discussions, gamified in class activities, scaffolded semester-long projects, and frequent low-stakes formative assessments with timely feedback.
- Multiformat and scenario-based cumulative assessments with individual feedback aimed to deepen student problem solving abilities and understanding of course material.
- Utilization of technology including Google forms, Canvas, and Chat GPT as well as multimedia including videos, podcasts, and social media to enrich and personalize learning.
- Created and will implement AI generated interactive patient Chatbots that simulate 6 different patient profiles to increase student engagement and practical skills practice for fall of 2025, implementing knowledge I gained through the Thunderbird School of Global Management AI Workshop (Spring 2025).

Teaching Assistant | Arizona State University

1. NEU 426 Neuroanatomy in person – Fall 2024, Psychology

Further developed the laboratory component of the course, with responsibilities such as weekly mini-lectures, skills training such as dissection and microscopy, grading, designing/delivering a practical examination

2. NEU 323 Neuroscience of Perception online asynchronous – Spring 2024, Psychology

3. NEU 494 Neuropharmacology of Psychiatric Medications in person – Spring 2023, Psychology

4. BIO 467 Neurobiology online asynchronous – Fall 2022, School of Life Sciences

5. BIO 331 Animal Behavior online asynchronous – Fall 2022, School of Life Sciences

Guest Lectures | Arizona State University

1. NEU 494 – Neuropharmacology; "Anti-Anxiety Medications" - Spring 2023
2. NEU 494 – Neuropharmacology; "Prescription Stimulants" - Spring 2023

May 2024 – August 2024 | Arizona State University School of Life Sciences, Ask A Biologist

Dr. Biology | Supervisor: Karla Moeller, PhD | Tempe, Arizona

1. Crafted grade-level appropriate answers to questions submitted to the Ask A Biologist website from K-12 students and lifelong learners, incorporating basic science knowledge as well as specific details and more comprehensive information as warranted. Delegated questions that were out of my area of expertise, selected from over 100 expert volunteers, to ensure expert-level answers while helping to maintain excellent science communication to the general population.
2. Wrote articles for publication on the Ask A Biologist website, aimed at K-12 science communication that fostered enthusiasm and feelings of accessibility for science, research, and higher education.

MENTORSHIP, LEADERSHIP, and CURRICULUM DESIGN EXPERIENCE

January 2022 – Present | Arizona State University, Addiction Neuroscience Laboratory

Research mentor | Supervisor: M. Foster Olive PhD | Tempe, Arizona

- Mentored 30+ undergraduate and post-bacc student researchers, including interviewing, onboarding, training, certification, and leadership through contributions to 14+ unique projects

2022	Camille Swaine	2022-2024	Serena Rodarte	2024-	Celine Shamon
2022	Anya Kolodisner	2023-2024	Rebecca Whittington	2024-	Perrin Steel
2022	Cierra Sorenson	2024, 2025	Emma Podczaski	2024-	<i>Emily Hoskinson</i>
2022	Logan Alvarado	2024	Raida Mahamed	2024-	<i>Gabriel Pena</i>
2022-2023	Gail Hutchings	2024	Sarah Lass	2024-	Allison Leadbetter
2022	Mary Siml	2023-2025	Justin Legg	2024-	Isabelle Mitchell
2022-2023	Lori Francis	2024	Alyssa Brown	2025-	Liliana Wagner
2023	Branson Duty	2024	Julie Karugu	2025-	James Hardy
2022-2023	Annabel Carlson	2023-2025	Mason Whitaker	2025-	Kjera Schack
2022-2023	Emma Peacock	2024-2025	Ananya Patibanda		
2022-2024	Skylar Bickely	2024-	Hiba Siddiqui		

* **Barrett Honors Theses bolded**

* *Presented at conference italicized*

- Mentored undergraduate researchers through experimental design, data analysis, poster design, and presentation of experimental work (posters listed below).
- Mentoring Barrett honors thesis projects through conception, experimentation, analysis, interpretation, writing, and defense.
- Over 7+ semesters, led weekly journal club style discussions with undergraduate students during lab meetings, fostering critical thinking, science literacy, as well as presentation and science discourse skills.
- Contributed to professional development of students including CV and personal statement editing and contributions to letters of recommendation for scholarships, internships, and applications to medical and graduate school.

August 2020 – May 2021 | Arizona State University, Psychology Student Success Center

Student Success Coach | Supervisor: Whitney Hansen, PhD | Tempe, Arizona

- Support student success through writing and statistics tutoring, personal statement and application coaching, study and other academic success strategies.
- Create multimedia materials that provide resources for student achievement in coursework, research, and self-promotion for future careers.
- Create and co-host webinars aimed to improve student application materials for scholarships, higher education admissions, and future careers.

September 2007 – May 2021 | SWIMkids USA

Aquatic Director | Supervisor: Lana Whitehead, owner | Mesa, Arizona

StarGuard Training Center and Program Director | Supervisor: Shaunna Rinsinger | Mesa, Arizona

- Developed, adapted, and trained instructors on existing aquatics and first responder curriculum for multiple programs, including lifeguard and layperson safety/rescue certifications, learn-to-swim courses for infants through adults and individuals with physical and cognitive challenges.
- Led and co-created novel courses from conception through budget analysis, curriculum implementation, staffing, training, and promotion. Centered evidence-based experiential learning embedded formative assessments to guide skill progression and remediation, practical skill/knowledge evaluations through scenario-based cumulative assessments, and analysis of course/instructor performance using metrics such as student skill progression, replicability, course completion, as well as client rapport and retention.
- Led a training session on adaptive and responsive teaching methods at a national conference (USA Swimming Children with Challenges Certification Course, 2015) aimed at providing resources to equip swim school owners with resources to better serve special needs populations.
- Designed and implemented community outreach CPR classes tailored to the needs of parents of small children, particularly those with barriers to initial or ongoing practical experience and feedback. Authored curriculum, trained instructors, created promotional materials, and directed outreach efforts in addition to instruction. Over 800 students served in the first year.
- Managed five departments focusing on recruitment and retention of staff and clientele. Implemented middle management infrastructure and participated in budget and strategic planning.
- Pursued training in mentorship and management including Emotional Intelligence for Managers (2011); Strategic Planning in Leadership (2011); and Management and Customer Service Culture (2010).

HIGHER EDUCATION COURSES, WORKSHOPS, WEBINARS ATTENDED

Chandler Gilbert Community College

2012 Fall EDU221 Introduction to Education
2013 Spring EDU230 Cultural Diversity in Education
2013 Summer EDU220 Introduction to serving English Language Learners

Arizona State University

2019 Spring PSY320 Learning and Motivation
2020 Spring PSY324 Memory and Cognition
2022 Fall BIO530 Scientific Teaching
2022 Fall PSY512 Advanced Learning
2024 Fall HED510 Introduction to Higher Education
2024 Fall HED620 Love, Justice, Equity and Inclusion in Higher Education
2024 Spring BIO531 Advanced Scientific Teaching
2024 Spring BIO593 Applied Project for the Scientific Teaching in Higher Education Certificate

Workshops/Webinars

2024 Thunderbird School of Global Management AI Workshop
2024 Society for the Advancement of Biology Education Research Biology Education Research Seminar Series

HONORS AND AWARDS

2025	College on Problems of Drug Dependence (CPDD) Travel Award
2025	Graduate Excellence Award
2025	Achievement Rewards for College Scientists (ARCS) Fellowship Achievement Award
2024	First Prize AZBIO Student Discovery Zone Competition, University Student Researcher
2024	ASU Graduate and Professional Student Association Outstanding Mentor Award
2023, 2024	Graduate and Professional Association, Travel Award
2023	Cold Spring Harbor Laboratories Neuroscience of Addiction Course attendee and travel Award
2023	Graduate College, Travel Award
2022	National Institute on Drug Abuse (NIDA) Diversity Scholars Travel Award
2021	Best Psychology Honors Thesis 2021
2019 – 2022	American Association of University Women (AAUW) Northwest Valley Branch Scholarship, bi-annually
2018 – 2021	Barrett, the Honors College Scholarship, annually
2018 – 2021	College of Liberal Arts and Sciences Dean's List, all semesters
2018 - 2020	All Arizona Academic Team Scholarship (tuition waiver)
2019	College of Liberal Arts and Sciences Student Leader, Psychology
2019	Women Inspiring Scientific Progress (WISP) Summer Neuroscience Scholarship
2018 – 2019	Barrett, the Honors College Garcia Family Scholarship
2017 – 2018	Chandler Gilbert Community College Academic Scholarship
2017 - 2018	Otto and Edna Neely Scholarship

RESEARCH EXPERIENCE

Addiction Neuroscience Research Laboratory

Mentor: M. Foster Olive PhD | Arizona State University, Tempe, Arizona | August 2021 – present

- **Behavior:**

- Investigation of the lasting impact of psychostimulants use on adaptive decision-making, seeking behavior, and effort-based reward valuation in rat models of methamphetamine, cocaine, and MDPV use. Perform rat jugular vein catheterization and vascular port insertion for intravenous self-administration in operant conditioning chambers followed by assessment of attentional set shifting and cued seeking during abstinence, as well as behavioral economics during drug use. Design, code, and pilot operant version of attentional set shifting task to be used to investigate behavioral performance following self-administration.
- Investigation of experience-based vulnerability for psychostimulant intake using a mouse drinking in the dark paradigm following methamphetamine administration (i.p.) or sipper tube training.

- **Behavioral Pharmacology:**

- Pharmacologically manipulate immune processes with peripherally delivered agents (s.c. and i.p. injections) to evaluate therapeutic potential of neuroimmune-based therapies on behavioral deficits following psychostimulant use.

- **Cellular/Molecular:**

- Investigation of neuroimmune effects of self-administered psychostimulants. Collect tissue to perform immunohistochemistry and confocal microscopy for glial morphology and colocalization of immune markers with cell type. Perform western blot and ELISA protein assays to quantify relative immune marker concentration. Saphenous vein and truck blood collection for serum cytokine analysis.
- Investigation of behavioral effects of female hormonal cycle on behavioral tasks using vaginal cytology to determine estrous phase in a mouse model of alcohol use. Include sex as a biological variable for all studies.

Behavioral Neuroscience in Stress Research Laboratory

Mentor: Cheryl Conrad PhD | Arizona State University, Tempe, Arizona | May 2018 – May 2021

Honors Thesis project (winner, Best Psychology Thesis Spring 2021):

Unpredictable, intermittent chronic stress may increase dendritic complexity of short shaft hippocampal neurons.

- Investigated the neurobiological impact of chronic restraint stress on hippocampal and amygdalar cell morphology utilizing histological and microscopy approaches. Evaluated complexity of dendritic morphology of neurons via Sholl and branch point analysis, with a particular interest in sex differences.
- Conducted and assisted in conducting behavioral testing (Y-maze, open field, novel object recognition, elevated plus maze, novelty suppressed feeding, marble burying, sucrose preference, social interaction, forced swim, and radial arm water maze) to measure depressive- and anxiety-like phenotypes and spatial memory following chronic restraint or administration glucocorticoids, with a particular interest in sex differences and female aging and cognitive load.
- Examined peripheral markers of stress by collecting and dissecting tissue (adrenals, thymus, uterus) for analysis to evaluate manifestations of stress in the periphery to correlate with central effects.

Banner-ASU Neuroscience Scholars, Brain and Body Donation Program

Mentor: Geidy Serrano PhD | Banner Sun Health Research Institute, Sun City, Arizona | June 2019 – July 2019

ASU Banner Neuroscience Scholars Program, summer internship capstone project:

New qPCR protocol is more accurate and less labor-intensive than the classical PCR method of APOE genotyping.

- Assisted with rapid autopsy by performing blood and CSF collection, organ weight measurement, tissue fixing and rapid freezing for biobank that focuses on neurodegenerative disease research with a particular focus on Alzheimer's disease (AD).
- APOE genotyping to determine patient risk factors for AD by assisting with DNA extraction, PCR with enzyme restriction and qPCR.
- Assist with pre/post-synaptic protein analysis using ELISAs to determine synaptic protein loss in patients with AD compared to patients without clinically diagnosed dementia.
- Assisted with histology for various markers of neurodegenerative disease pathology using paraffin embedding, microtome sectioning, Gallyas silver stain, and immunohistochemistry.
- Attended weekly meetings with guest speakers in the field of neurodegenerative disease research to gain a large-scale perspective on the collaborative work being done in the field.

PUBLICATIONS

1. Conrad C.D., Peay D.N., Sladkova, S., Kim, J.L., Donnay M.E., **Acuña A.M.**, & Whittaker K. (2025). Chronic 17 β -estradiol treatment improves negative valence, anhedonic profile, and social interactions in ovariectomized, middle-aged female rats. In Press.
2. **Acuña, A. M.**, Rodarte, S. E., Bickley, S., Nagy, E. K., Peacock, E., Carlson, A., Overby, P. F., & Olive, M. F. (2025). Methamphetamine produces behavioral flexibility deficits that are attenuated by COX-2 inhibition in both male and female rats. *Addiction Neuroscience*, 15, 100207. <https://doi.org/10.1016/j.addicn.2025.100207>
3. **Acuña, A. M.**, Nagy, E. K., Legg, J. L., Rodarte, S. E., & Olive, M. F. (2025). Characterization of serum and brain cytokine levels following prolonged binge-like methamphetamine self-administration and cued methamphetamine seeking. *Journal of Neuroimmunology*, 400, 578530. Advance online publication. <https://doi.org/10.1016/j.jneuroim.2025.578530>
4. Judd, J. M., Peay, D. N., Kim, J. L., Smith, E. A., Donnay, M. E., Miller, J., Klein, J. P., Nagy, E. K., **Acuña, A. M.**, Olive, M. F., & Conrad, C. D. (2025). Inhibition of prefrontal glutamatergic neuron activity during the recovery period following chronic stress disrupts fear memory in male rats: potential role of the infralimbic cortex. *Learning & memory (Cold Spring Harbor, N.Y.)*, 32(1), a053957. <https://doi.org/10.1101/lm.053957.124>

5. Conrad C.D., Peay D.N., **Acuña A.M.**, Whittaker K., & Donnay M.E. (2024). Corticosterone disrupts spatial working memory during retention testing when highly taxed, which positively correlates with depressive-like behavior in middle-aged, ovariectomized female rats. *Hormones and Behavior* (164). DOI: 10.1016/j.yhbeh.2024.105600.
6. **Acuña A.M.**, Park C., Leyrer-Jackson J.M., & Olive M.F. (2024) Promising immunomodulators for management of substance and alcohol use disorders. *Expert Opinion on Pharmacotherapy* 25(7):867-884. DOI: 10.1080/14656566.2024.2360653
7. Nagy E.K., Overby P.F., Leyrer-Jackson J.M., Carfagno V.F., **Acuña A.M.**, & Olive M.F. (2024). Methamphetamine and the Synthetic Cathinone 3,4-Methylenedioxypyrovalerone (MDPV) Produce Persistent Effects on Prefrontal and Striatal Microglial Morphology and Neuroimmune Signaling Following Repeated Binge-like Intake in Male and Female Rats. *Brain Sciences*, 14(5):435. DOI: 10.3390/brainsci14050435.
8. Serrano G.E., Walker J., Nelson C., Glass M., Arce R., Intorcchia A., Cline M.P., Nabaty N., **Acuña A.**, Huppert Steed A., Sue L.I., Belden C., Choudhury P., Reiman E., Atri A., & Beach T.G. (2024). Correlation of Presynaptic and Postsynaptic Proteins with Pathology in Alzheimer's Disease. *International Journal of Molecular Sciences*, 25(6):3130. DOI: 10.3390/ijms25063130.
9. **Acuña A.M.** & Olive M.F. Influence of gut microbiome metabolites on cocaine demand and cocaine-seeking behavior. (2024). *Neuropsychopharmacology*, 49(2):357-358. DOI: 10.1038/s41386-023-01743-9.
10. Nagy E.K., Leyrer-Jackson J.M., Hood L.E., **Acuña A.M.**, & Olive M.F. (2023). Effects of repeated binge intake of the pyrovalerone cathinone derivative 3,4-methylenedioxypyrovalerone on prefrontal cytokine levels in rats - a preliminary study. *Frontiers in Behavioral Neuroscience*, 17:1275968. DOI: 10.3389/fnbeh.2023.1275968.
11. Peay D.N., **Acuña A.**, Reynolds C.M., Willis C., Takalkar R., Ortiz B.J., & Conrad C.D. (2023). Chronic stress leads to persistent and contrasting stellate neuron dendritic hypertrophy in the amygdala of male and female rats, an effect not found in the hippocampus. *Neuroscience Letters*, 24;812:137403. DOI: 10.1016/j.neulet.2023.137403.
12. **Acuña A.M.** & Olive M.F. (2023). Purine-cytokine interactions in methamphetamine-induced behaviors. *Brain, Behavior and Immunity*, 55-56. DOI: 10.1016/j.bbi.2022.11.015.
13. Leyrer-Jackson J.M., **Acuña A.M.** & Olive M.F. Current and emerging pharmacotherapies for opioid dependence treatments in adults: a comprehensive update. (2022). *Expert Opinion on Pharmacotherapy*, 23(16):1819-1830. DOI: 10.1080/14656566.2022.2140039.

ORAL AND POSTER PRESENTATIONS

1. **Acuña, A.M.**, Rodarte, S., Peacock, E., Whittington, R., Bickley, S., Legg, J.L., Carlson, A., Karugu, J., Siddiqui, H., Nagy, E.K., & Olive, M.F. (2025). Impaired Behavioral Flexibility Following Chronic Methamphetamine Use is Attenuated by COX-2 and PGE2 Inhibition in Male and Female rats; Potential Role of PFC Neurons.
 - Poster: Summer 2025 College on Problems of Drug Dependence, New Orleans, LA.
2. **Acuña, A.M.**, Rodarte, S., Peacock, E., Whittington, R., Bickley, S., Legg, J.L., Carlson, A., Karugu, J., Siddiqui, H., Nagy, E.K., & Olive, M.F. (2025). The potential efficacy of an anti-inflammatory medication to restore behavioral flexibility during abstinence from methamphetamine (METH) use.
 - Poster: Fall 2025 Achievement Rewards for College Scientists (ARCS), Phoenix, AZ.
3. **Acuña, A.M.**, Peacock, E., Rodarte, S., Whittington, R., Nagy, E.K., Legg, J.L., Siddiqui, H., Whitaker, M., & Olive, M.F. (2024). Methamphetamine-induced behavioral deficits are not associated with prefrontal microglia: potential role of COX-2 signaling in cortical neurons.
 - Poster: Fall 2024 Society for Neuroscience, Chicago IL.

4. **Acuña, A.M.**, Rodarte, S., Bickley, S., Nagy, E.K., Peacock, E., Karugu, J.W., Carlson, A., Overby, P.F., & Olive, M.F. (2024). Methamphetamine-induced neuroinflammation in the prefrontal cortex corresponds with behavioral flexibility deficits that are attenuated by COX-2 inhibition.
 - Poster: Fall 2024 AZBio Awards, Phoenix AZ, *winner first prize University student researcher*.
5. **Acuña, A.M.**, Peay, D.N., Whittaker, K., Donnay, M.E., Conrad, C.D. (2024). Corticosterone disrupts spatial working memory during retention testing when highly taxed, which positively correlates with depressive-like behavior in middle-aged, ovariectomized female rats.
 - Poster: Fall 2024 Arizona Alzheimer's Consortium Conference, Tempe AZ.
6. **Acuña, A.M.** (2024). Addiction and the Brain.
 - Invited Talk: Science on Tap, Tempe AZ.
7. **Acuña, A.M.**, Nagy, E.K., Overby, P.F., Bickley, S., Carlson, A., Frances, L., Hutchings, G., Peacock, E., Rodarte, S., & Olive, M.F. (2024). Methamphetamine-Induced Neuroinflammation in the Prefrontal Cortex Corresponds with Cognitive Flexibility Deficits that Are Attenuated by COX-2 Inhibition.
 - Poster: Spring 2024 Winter Conference on Brain Research, Breckenridge CO.
 - Spring 2024 ASU/BNI Graduate Neuroscience Symposium, Phoenix AZ.
 - Spring 2024 Interdisciplinary Neuroscience symposium, Tempe AZ.
8. **Acuña, A.M.**, Nagy, E.K., Overby, P.F., Bickley, S., Carlson, A., Frances, L., Hutchings, G., Peacock, E., Rodarte, S., & Olive, M.F.. (2024). Failure to adapt: dysfunctional decision making and neuroimmune signaling following methamphetamine use.
 - Invited talk: Spring 2024 ASU/BNI Graduate Neuroscience Symposium, Phoenix AZ.
9. **Acuña, A.M.**, Nagy, E.K., Overby, P.F., Alvarado, L., Bickley, S., Carlson, A., Frances, L., Hutchings, G., Kolodisner, A., Peacock, E., Rodarte, S., & Olive, M.F. (2023). Methamphetamine (METH)-induced neuroinflammation in the prefrontal cortex corresponds with impairment of cognitive flexibility: effects of an anti-inflammatory medication.
 - Poster: Spring 2023 BNI/ASU Neuroscience Research Symposium, Phoenix AZ.
10. **Acuña, A.M.**, Nagy, E.K., Overby, P.F., Leyrer-Jackson J.M., & Olive, M.F. (2022). Repeated binge-like intake of methamphetamine and the cathinone derivative methylenedioxypyrovalerone (MDPV) produce differential effects on prefrontal neuroinflammation and cognitive flexibility.
 - Poster: Fall 2022 Annual Meeting of the American College of Neuropsychopharmacology, Scottsdale, AZ.
11. **Acuña, A.M.** (2022). Stress, Drugs, and Rock 'n Roll.
 - Invited Talk: Fall 2022 ASU Psychology Department Cross Area Talk, Tempe AZ.
12. **Acuña, A.M.**, Nagy, E.K., Overby, P.F., Bickley, S., Frances, L., Peacock, E., Sorrenson, C., Swaine, C., & Olive, M.F. (2022). Methamphetamine (METH)-induced neuroinflammation in the prefrontal cortex corresponds with impairment of cognitive flexibility: effects of an anti-inflammatory medication.
 - Poster: Fall 2022 Society for Neuroscience, San Diego CA.
 - Fall 2022 Graduate College Symposium, Tempe AZ.
13. **Acuña, A.M.**, Nagy, E.K., Overby, P.F., Bickley, S., Frances, L., Peacock, E., Sorrenson, C., Swaine, C., & Olive, M.F. (2022). Methamphetamine-induced neuroinflammation corresponds with cognitive flexibility deficits following abstinence.
 - Lightning Talk: Fall 2022 BioSci Southwest Symposium, Tempe AZ
14. **Acuña, A.M.**, Peay, D.N., Judd, J.M., Reynolds, C.M., Takalkar, R., & Conrad, CD., Unpredictable, intermittent, chronic stress may increase dendritic complexity of short shaft hippocampal neurons.
 - Poster: Spring 2021 Arizona Psychology Undergraduate Research Conference, Tempe AZ
15. **Acuña, A.M.**, Huppert, A., Nabaty, N., Walker, J., Glass, M., Lucia, S., Beach, T., & Serrano, G., New qPCR protocol is more accurate and less labor-intensive than the classical PCR method of APOE genotyping.
 - Poster: Summer 2019 Banner/ASU Neuroscience Scholars Symposium, Phoenix, AZ
 - Fall 2019 AZBio Awards, Phoenix AZ.

MENTEE ORAL AND POSTER PRESENTATIONS

1. Hoskinson, E.K., **Acuña, A.M.**, Rodarte, S.E., Bickley, S., Peacock, E., Karugu, J.W., Nagy, E.K., Overby, P.F., & Olive, M.F. (2025). Exploration vs. Exploitation: Examining egocentric search strategies in male and female rats within the Attentional Set Shifting Task (ASST) measure of behavioral flexibility.
 - Poster: Fall 2025 AZ Psychology Undergraduate Conference, Tempe, AZ
2. Peña, G., Patibanda, A.K., **Acuña, A.M.**, Rodarte, S., Siddiqui, H., Nagy, E., & Olive, M.F. (2025). The Roles of Behavioral and Physiological Dependence on Methamphetamine Use in Mice.
 - Poster: Fall 2025 AZ Psychology Undergraduate Conference, Tempe, AZ
3. Rodarte, S.E., **Acuña, A.M.**, Peacock, E., Nagy, E., Karugu, J., Legg, J., Patibanda, A., Siddiqui, H., Whitaker, M., & Olive, M.F. Sustained methamphetamine-induced impairment of cognitive flexibility in rats: the behavioral effects of prostaglandin E2 (PGE2) synthase inhibition.
 - Poster: Fall 2024 Society for Neuroscience, Chicago, IL
4. Legg, J.L., **Acuña, A.M.**, Whittington, R.F., Nagy, E.K., Rodarte, S.E., Whitaker, M.K. & Olive, M.F. COX-2 and PGE2 in rat brain tissue following methamphetamine self-administration.
 - Poster: Spring 2024 31st Annual Undergraduate Research Poster Symposium
 - Fall 2024 AZBio Awards, Phoenix AZ
2. Peacock, E.J., Rodarte, S.E., **Acuña, A.M.**, Carlson, A.R., Legg, J.L., Nagy, E.K., & Olive, M.F. No effect of parecoxib on microglial activation in rodents with binge-like access to methamphetamine (METH).
 - Poster: Spring 2024 31st Annual Undergraduate Research Poster Symposium, *Winner best neuroscience poster*
3. Whittington, R.F., **Acuña, A.M.**, Nagy, E.K., Overby, P.F., Siddiqui, H., Whitaker, M.K., & Olive, M.F. Alterations in COX-2 and IL-6 concentrations in the rat hippocampus following methamphetamine (METH) or methylenedioxypyrovalerone (MDPV) self-administration
 - Poster: Spring 2024 31st Annual Undergraduate Research Poster Symposium
4. Bickley, S., **Acuña, A.M.**, Swaine, C., Nagy, E.K., Overby, P.F., Frances, L., Peacock, E., & Olive, M.F. (2023). Deficits in cognitive flexibility during abstinence from methamphetamine (METH) but not methylenedioxypyrovalerone (MDPV) in a rodent model of psychostimulant use.
 - Poster: Spring 2023 Arizona Psychology Undergraduate Research Conference, Tempe AZ
5. Carlson, A., **Acuña, A.M.**, Bickley, S., Frances, L., Hutchings, G., Kolodisner, A., Peacock, E., Rodarte, S., Nagy, E.K., Overby, P.F., & Olive, M.F. (2023). Self-administration of methamphetamine (METH) produces dose-dependent effects on cognitive flexibility.
 - Flash Talk and Poster: Spring 2023 Arizona Psychology Undergraduate Research Conference, Tempe AZ
6. Rodarte, S., **Acuña, A.M.**, Bickley, S., Frances, L., Hutchings, G., Peacock, E., & Olive, M.F. (2023). No baseline sex differences found in the Attentional Set Shifting Task (ASST) measure of cognitive flexibility in rodents: a validation study.
 - Poster: Spring 2023 Arizona Psychology Undergraduate Research Conference, Tempe AZ
 - Fall 2023 AZBio Awards, Phoenix AZ
 - Spring 2024 Arizona State University Women in STEM (WiSTEM) EmpowHER Summit

PROFESSIONAL MEMBERSHIPS

2023 – present	Graduate Women in Science
2023 – present	American Association of University Women
2023 – present	Association for Women in Science
2022 – present	Graduate Association of Interdisciplinary Neuroscience Students
2019 – present	Society for Neuroscience Member
2019 – present	Psi Chi Honors Society Member
2012 – present	Phi Theta Kappa Member

COMMUNITY INVOLVEMENT

2024 – present	Letters to a pre-scientist pen-pal program <ul style="list-style-type: none">• Pen-pal program linking elementary and middle school students with scientists to foster enthusiasm for science and higher learning by making science-related professionals accessible and relatable
2023 – present	Peer-reviewer for research articles: <ul style="list-style-type: none">• Reviewed 2 articles for International Brain Research Organization (IBRO) journal neuroscience reports• Reviewed 1 article for Journal of Neuroimmunology• Reviewed 1 article for Pharmacology, Biochemistry, and Behavior• Reviewed 1 article for Behavioral Pharmacology
2022 – present	Graduate and Professional Student Association (GPSA) Travel Grant Reviewer <ul style="list-style-type: none">• Scored 200+ travel grants
2022 – present	Ask a Biologist Contributor for Neuroscience topics <ul style="list-style-type: none">• Answered 10+ questions from the general public as a neuroscience expert
2023 – 2024	Graduate Association of Interdisciplinary Neuroscience Students (GAINS) Secretary <ul style="list-style-type: none">• Volunteered for Open-Door Neuroscience is for Everyone outreach event• Organized, coordinated, conducted panel, hosted/announced for the 2024 Interdisciplinary Neuroscience Symposium
2023, 2024	ASU Undergraduate Research Poster Symposium Judge
2023	AZ Junior Science and Humanities Symposium Judge
2018 – 2020	Hemophilia Association Event Volunteer
2011 - 2020	Blake's Miracle Foundation Event Volunteer
2016 – 2018	Special Needs Swim Lessons Volunteer Instructor
2013 – 2018	Channel Eight PBS Phone Drive Volunteer
2017	Gilbert Historical Museum Graphic Design
2014 – 2015	UMOM Volunteer