

Tia N. Donaldson, MA

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Albuquerque, NM

Updated July 2023

EDUCATION

PhD Psychology (The University of New Mexico (UNM)) Expected Dec 2023
GPA: 3.97

MA Psychology (Northern Illinois University (NIU)) Aug 2018
GPA: 3.88

BS Psychology (The University of New Mexico (UNM)) May 2015
Baccalaureate Honors: Magna Cum Laude (GPA: 3.83)
Psychology Honors: Summa Cum Laude (GPA: 4.22)

SCHOLARSHIPS, HONORS, AND AWARDS

- Scientist Mentoring & Diversity Program for Biotechnology (SMDP Biotech) May 2023
- Benjamin Franklin Haught Scholarship Award (\$3,000) April 2023
- LEARNMEM2023 NIH Travel Fellowship (\$2,000) March 2023
- UNM Doctoral Conference Presentation Award (\$1,000) February 2023
- Frances Everett Letchworth Psychology Student Support Fund (\$3,000) April 2022
- Park City Learning and Memory Conference Data Blitz Runner Up (\$50) January 2022
- PNMGC Peer Mentoring Scholarship (\$1,500) Dec 2021- Present
- Marine Biological Laboratory: Summer Program in Neuroscience, Excellence, and Success July 2021
- UNM Shared Knowledge Conference LoboBites Second Place Winner (\$500) November 2020
- Society for Neuroscience: Neuroscience Scholars Program (NSP) Fellow June 2020-2022
- Society for Neuroscience: Neuroscience Scholars Program (NSP) Associate May 2019- June 2020
- Ed and Carolyn Lewis Scholarship (\$1,000) Aug 2013-May 2015
- Ronald E. McNair Scholars Program (\$2,800) Sept 2013-Aug 2014
- Education Trust Board Pathways Scholarship (\$1,000) Aug 2011-May 2012

PUBLICATIONS ([click here to read](#))

Sanchez, L.M., Gabriela A., **Donaldson, T.N.**, Trejo Rico, K., Wilber, A.A., Clark, B.J., (Under Review). Electrophysiological recordings in rodents during navigation: single neuron recordings. In: A. Ekstrom (Ed.), *The Encyclopedia of the Human Brain* (2nd ed.). Elsevier.

Monge, F. A., Fanni, A. M., Donabedian, P. L., Hulse, J., Maphis, N. M., Jiang, S., **Donaldson, T. N.**, et al. (2023). Selective in vitro and ex vivo staining of brain neurofibrillary tangles and amyloid plaques by novel ethylene ethynylene-based optical sensors. *Biosensors*, 13(2), 151

Osterlund Oltmanns, J.R., Schaeffer, E.A., Goncalves-Garcia, M., **Donaldson, T.N.**, Acosta, G., Sanchez, L.M., Savage, D.D., Wallace, D.G., Clark, B.J. (2022). Sexually dimorphic open field behavior organization following moderate prenatal alcohol exposure. *Alcoholism: Clinical and Experimental Research*.

Pentkowski, N. S., Rogge-Obando, K. K., **Donaldson, T. N.**, Bouquin, S. J., & Clark, B. J. (2021). Anxiety and Alzheimer's disease: behavioral analysis and neural basis in rodent models of Alzheimer's-related neuropathology. *Neuroscience & Biobehavioral Reviews*.

Donaldson, T.N., Jennings, K.T., Cherep, L.A., Blankenship, P.A., Blackwell, A.A., Yoder, R.M., and Wallace D.G. (2019). Progression and stop organization reveals conservation of movement organization during dark exploration across rats and mice. *Behavioural Processes*, 162, 29-38.

Blankenship P.A., Normann M., **Donaldson T.N.**, Baumeister J., McNeal N., Grippo A.J., Wallace D.G., (2019). Making waves: Comparing Morris water task performance in rats and prairie voles. *Behavioural Brain Research*, 360, 7-15.

Donaldson, T.N., Jennings, K.T., Cherep, L.A., McNeela, A.M., Depreux, F.F., Jodelka, F.M., Hastings, M.L., Wallace, D.G. (2018). Antisense oligonucleotide therapy rescues disruptions in organization of exploratory movements associated with Usher syndrome type 1C in mice. *Behavioural Brain Research*, 338, 76-87.

Donaldson, T.N., Barto, D., Bird, C.W., Rodriguez, C.I., Magcalas, C.M., Fink, B.C., & Hamilton, D.A. (2018). Social order: using the sequential structure of social interaction to discriminate abnormal social behavior in the rat. *Learning and Motivation*, 61, 41-51.

Blankenship, P. A., Cherep, L.A., **Donaldson, T.N.**, Brockman, S.N., Trainer, A.D., Yoder, R.M., Wallace, D.G. (2017). Otolith dysfunction alters exploratory movement in mice. *Behavioural Brain Research*, 325, 1-11.

Bird, C. W., Barto, D., Magcalas, C. M., Rodriguez, C. I., **Donaldson, T.N.**, Davies, S., ... & Hamilton, D. A. (2016). Ifenprodil infusion in agranular insular cortex alters social behavior and vocalizations in rats exposed to moderate levels of ethanol during prenatal development. *Behavioural Brain Research*, 320, 1-11.

INVITED SPEAKING EVENTS

Panelist: Black Journey to Neuro: Navigating non-linear journeys, (07/27/2023), Black in Neuro Week 2023, (Virtual)

Symposium Chair: Neurobiological Basis of Reference Frame Coordination for Spatial Learning and Memory Symposium (04/29/2023), LEARNMEM2023, Huntington Beach, California

Guest Speaker: Leveraging Your PhD Outside of Academia (04/07/2023), University of New Mexico, Department of Psychology Cognition, Brain, and Behavior Seminar

Guest Speaker: Alzheimer's disease: From Mouse to Human (10/15/2022), Old Lesbians Organizing for Change (OLOC) NM Chapter

Guest Speaker: Exposure to Novel Environments Increases Catecholamine Activity in the CA1 (09/10/2021), California State University, BRAIN Alliance Seminar, (Virtual)

CONFERENCE PRESENTATIONS

Donaldson T.N., Roy, Z.I., Schaeffer, E.A., Wallace, D.G., Clark, B.J., (2023) The Effects of Acute Ethanol Exposure on Locomotion and Path Integration Based Navigation in the Open Field. Research Society on Alcoholism. Bellevue, Washington

Donaldson T.N., Roy, Z.I., Schaeffer, E.A., Wallace, D.G., Clark, B.J., (2023) The Effects of Acute Ethanol Exposure on Path Integration. LEARNMEM2023. Huntington Beach, California

Donaldson T.N., Roy, Z.I., Schaeffer, E.A., Wallace, D.G., Clark, B.J., (2022) The Effects of Alcohol on Path Integration. Society for Neuroscience. San Diego, CA.

Donaldson T.N., Nyikos, A., McKenzie, S.A., (2022). Catecholamine Response of the CA1 Persists After Continued Exposure to a Novel Environment. OPEN Symposium, virtual.

Donaldson T.N., Melendrez, E.N., McKenzie, S.A., (2022). CA1 Catecholamine Response to Contextual Novelty Persists After Weeks of Repeated Exposure. Learning and Memory Winter Conference. Park City, UT. (Second Place Winner, \$50)

Donaldson T.N., Melendrez, E.N., McKenzie, S.A., (2021). CA1 Catecholamine Response To Contextual Novelty Persists After Weeks Of Repeated Exposure. University of New Mexico Shared Knowledge Conference. Albuquerque, NM.

Zhang, Y. Huszar, R. Saccomano, Z., **Donaldson.T.N.**, Amarasingham, A., Rotstein, H.G., Buzsaki, G., McKenzie, S., (2021). Estimation of Neural Coupling with Time Varying Synaptic Conductance and Background Statistics. Society for Neuroscience. Virtual

Donaldson T.N., Clark, B.J., (2020). A New Look into an Old Problem: Implications of the Locus Coeruleus in Alzheimer's Disease. University of New Mexico Shared Knowledge Conference. (Virtual)

- Donaldson T.N.**, Clark, B.J., LaChance, P., Winter, S.S., Mechlman, M.L., Butler, W., Taube, J.S. (2020). Head Direction Cells Differ Across Thalamo-Parahippocampal Cortices. Black in Neuro Mini-Conference. (Virtual)
- Goncalves-Garcia M., Berkowitz L.E., **Donaldson T.N.**, Harvey R.E., Savage D.D., Clark B.J. (2020). The effects of moderate prenatal alcohol on the organization of exploratory behavior by adult male and female rats. Research Society on Alcoholism. New Orleans, LA.
- Goncalves-Garcia M., Berkowitz L.E., **Donaldson T.N.**, Harvey R.E., Wagner J., Davies S., Savage D.D., Clark B.J. (2019). The effects of moderate prenatal alcohol on the organization of exploratory behavior by adult rats. Society for Neuroscience. Chicago, IL.
- Goncalves-Garcia M., **Donaldson T.N.**, Berkowitz L.E., Harvey, R., Parish, M., Sanchez, L., Goss, J., Wagner, J., Davies, S., Tofighi, D., Savage, D.D., Clark, B.J., (2019). The Effects of Moderate Prenatal Alcohol Exposure on The Organization of Exploratory Behavior by Adult Female Rats. Neuroscience Day, Albuquerque, NM
- Donaldson T.N.**, Miller, M.K., Sanchez L.M., Goss, J.K., Savage, D.D., Wallace, D.G., Clark, B.J., (2018) Moderate Prenatal Alcohol Exposure Does Not Disrupt Spatial Orientation in an Exploratory Task. Fetal Alcohol Spectrum Disorder (FASD) Awareness Day, Albuquerque, NM.
- Donaldson T.N.**, Miller M.K., Eash J.L., Yoder R.M., Wallace D.G. (2018). Otolith dysfunction disrupts exploratory movement organization across two developmental time points. Chicago Chapter of Society for Neuroscience Annual Meeting, Chicago IL.
- Depreux F.F., Vijayakumar S., **Donaldson T.N.**, Jennings K.T., Cherep L.A., McNeela A.M., Jodelka F.M., Rigo F., Lentz J.J., Wallace D.G., Jones T.A., Hastings M.L., (2018). Correction of vestibular dysfunction and spatial organization in Usher Mice using antisense oligonucleotide therapy. Association for Research in Otolaryngology, San Diego, CA.
- Donaldson T.N.**, Jennings K.T., Cherep L.A., McNeela A.M., Depreux F.F., Hastings M., Wallace D.G., (2017). Effects of ASO Therapy on Exploration in Usher Syndrome Mice. Midwestern Psychological Association, Chicago IL.
- Blankenship P.A., Normann M., **Donaldson T.N.**, Baumeister J., Jennings K.T., McNeal N., Grippo A.J., Wallace D.G. (2017). Making Waves: Rat and Prairie Vole Performance in the MWM. Midwestern Psychological Association, Chicago IL.
- McNeela A.M., **Donaldson T.N.**, Jennings K.T., Cherep L.A., Depreux F.F., Hastings M.L., Wallace D.G. (2017). Effects of targeted ASO therapy on markers of cholinergic function on Usher syndrome mice. Chicago Chapter of Society for Neuroscience Annual Meeting, Chicago IL.
- Donaldson T.N.**, Jennings K.T., Cherep L.A., McNeela A.M., Depreux F.F., Hastings M.L., Wallace D.G., (2017) Ameliorating vestibular deficits with an antisense oligonucleotide gene therapy in the mouse model of Usher syndrome: Evaluating sex differences. Midwestern Psychological Association, Chicago IL.
- Donaldson T.N.**, Cherep L.A., Blankenship P.A., Trainer A.D., Yoder R.M., Wallace D.G., (2016). Sequential Analysis of Exploratory Behavior in Rats and Mice. Midwestern Psychological Association, Chicago IL.
- Donaldson T.N.**, Jennings K.T., Cherep L.A., Depreux F.F., Hastings M.L., Wallace D.G. (2016). ASO therapy rescues disruptions in organization of exploratory behavior associated with Usher syndrome. Chicago Chapter of Society for Neuroscience, Chicago IL.
- Donaldson, T.N.**, Magcalas, C.M., Barto, D., Akers K.G., and Hamilton, D.A. (2014) Extinction of Spatial Navigation in the Morris Water Task: The Effect of Brief Reminders. Society for Neuroscience Annual Meeting. Washington, D.C.

RELEVANT SKILLS

Research topics/therapeutic areas

- Alzheimer's disease (AD), catecholamines (dopamine & norepinephrine), fetal alcohol spectrum disorder (FASD), hippocampal function, social behavior, spatial learning and memory, vestibular pathologies (Usher Syndrome)

Behavioral assessments

- Food hoarding, ladder rung walking, Morris water maze open field exploration spontaneous object recognition, string pulling

Rodent handling, husbandry, and surgery

- Rats, mice, prairie voles

***In vivo* techniques**

- AAV viral injections, fiber optic cannula implants, fiber photometry

Histological procedures

- Cryosectioning, immunohistochemical (IHC) staining, perfusions

Microscopy

- Brightfield, fluorescence (confocal)

Qualitative and quantitative data analysis

Mentoring

- Undergraduates, graduates, K-12, diverse populations

Software

- Adobe Acrobat, Adobe Illustrator, Adobe InDesign, EndNote, Google Workspace, ImageJ (FIJI) JASP, Matlab, Microsoft Office, Microsoft Teams, Python, RStudio, Slack, SPSS, Zoom, Zotero

GRADUATE EXPERIENCE

The University of New Mexico

Graduate Assistant (Psychology Dept)

Aug 2018-Present

Courses assisted: PSYC 1110: Introduction to Psychology, PSY 2250: Brain and Behavior, PSY 302: Psychology Research Techniques, PSY 364: Psychology of Perception, PSY 450L: Small Group Research Lab

- Assisted in proctoring lectures
- Held office hours, answer emails and phone calls from students regarding course material
- Facilitated make up assignments, graded assignments, entered grades on Blackboard Learn
- Coordinate class on Zoom (PSY 450L: Small Group Research Lab)

Graduate Research Assistant (Psychology Dept)

July 2018-Present

- Conduct behavioral assessments on rodents in spatial tasks
- Analyze brain tissue with histological techniques
- Analyze behavioral data with MATLAB, R

Graduate Research Assistant (Neuroscience Dept)

Jan 2021-June 2022

- Surgically injected viruses and implant fiber optic cannulas
- Conducted fiber photometry experiments using GRAB sensors
- Analyzed brain tissue with immunohistochemical techniques
- Analyzed data using MATLAB

Project Assistant (Center for Digital Learning, CDL)

Aug-Dec 2020

- Assisted in online course development, support faculty in incorporating digital pedagogies into courses
- Worked closely with and provide assistance to CDL instructional designers
- Provided technical and operational support for the development of online courses in Blackboard Learn
- Conducted cognitive interviews with faculty to test learning management systems for university

Northern Illinois University

Graduate Research Assistant (Psychology Dept)

Aug 2015-Aug 2018

- Conducted behavioral assessments on rodents in spatial tasks
- Analyzed brain tissue with histological techniques

- Completed weekly animal husbandry duties
- Mentored undergraduates on data collection, analysis, and presentation
- Presented data at local and regional conferences

UNDERGRADUATE EXPERIENCE

Psychology Honors Program

Aug 2013-May 2015

- Conducted behavioral assessments on rats in a spatial task, analyzed behavioral data
- Wrote a 20-page thesis, presented final results at annual Psychology Honors Program Symposium

Undergraduate Research Assistant

May-Dec 2013

- Recruited preschool participants from local daycares for a study regarding developmental changes in theory of mind
- Ensured privacy of personal information of participants
- Collected data, reviewed video files for analysis, and coded data
- Organized meetings with other research assistants to discuss data and project goals

Undergraduate Peer Teaching Assistant (PSYC 1110)

Jan-May 2012

- Assisted in proctoring lectures for an introductory level psychology course
- Held weekly office hours, answered emails and phone calls from students regarding course material
- Attended weekly meetings to discuss course material and instructional techniques

TEACHING EXPERIENCE

The University of New Mexico

Graduate Teaching Assistant

Jan-May 2021

Psychology 2510 (1 section, 35 students, instructor of record, virtual): Introduction to Statistical Principles

- Taught undergraduates basic foundational skills (e.g., descriptive, inferential) in statistics
- Taught undergraduates to analyze data using open-source statistical software (Jamovi)
- Held weekly office hours
- Created course materials including syllabus, lectures, and assessments
- Posted materials and entered grades on Blackboard Learn

Northern Illinois University

Graduate Teaching Assistant

June 2017-Aug 2018

Psychology 431 (1 section): Neuropsychology Laboratory

- Taught undergraduates basic principles of animal research in the field of neuropsychology
- Held weekly office hours
- Created course materials including syllabus, lectures, and assessments
- Posted materials and entered grades on Blackboard Learn

Psychology 411 (2 sections): Animal Cognition Laboratory

Fall 2017

- Taught undergraduates basic principles of animal research in the context of classical and operant conditioning
- Held weekly office hours
- Created course materials including syllabus, lectures, and assessments
- Posted materials and entered grades on Blackboard Learn

PROFESSIONAL TRAINING

Science Communication Online Programme (SCOPE) (offered online)

July 2023

- Science communication workshop series for STEM graduate students
- Designed to enhance writing and presentation skills

Klarity Internship Programme (remote)

June 2023-Present

- Collaborate with a team of writers and editors to produce 3 high-quality medical articles per week for a health library for the general public
- Edit medical articles for grammar, spelling, punctuation, clarity, and accuracy

- Ensure articles meet Vancouver style guide and company standards

Good Clinical Practice (certificate)

National Drug Abuse Treatment Clinical Trials Network (offered online)

January 2023

Regulatory Affairs Training Program

Duke University School of Medicine

Sept-Nov 2022

- 6-week online training course covering topics such as drug and medical device development, and FDA regulations

SEO (HubSpot Academy)

August 2022

Drug Development Product Management (Coursera)

January 2022

- [Drug Development](#)
- [Drug Discovery](#)
- [Drug Commercialization](#)

Design and Interpretation of Clinical Trials

December 2021

VOLUNTEER/OUTREACH

Limina: UNM Nonfiction Review

August 2022-April 2023

- Created print and digital marketing campaigns to promote *Limina*, resulting in 30 submissions
- Collaborated with team of 6 editors to review submissions for grammar, spelling, punctuation, syntax, accuracy, and compliance with style guides
- Utilized Adobe InDesign to create layout, copyedit, and typeset 67-page magazine for *Limina*

Next-Gen Psych Scholars Program

- Virtual graduate led mentorship program
- Served as mentor for students from underrepresented backgrounds

June 2022-Present

Old Lesbians Organizing for Change (OLOC) (New Mexico Chapter)

October 2022-Present

- Inform group of senior individuals on the latest scientific research in neuroscience

Future Health Leaders Network Panelist (UMass Amherst, virtual)

Nov 15, 2021

- Served as a panelist to a group of aspiring researchers and health care workers
- Discussed topics of diversity and professionalism

Letters to a Pre-Scientist

Oct 2021-Present

- Wrote letters to a 6th grader that is interested in careers in STEM

Alzheimer's Association Community Educator (New Mexico Chapter)

Aug 2021- Present

- Deliver 12 webinar-based presentations annually
- Collaborate with local Association staff to expand programs by securing community partners, scheduling presentations, delivering programs and managing technology needs
- Serve as virtual presenter for chapter scheduled education programs and conferences
- Connect people with Association services and volunteer opportunities by making referrals to Alzheimer's Association programs

Dream Wakers

Oct 2021, Feb 2023

- 45-minute virtual chat with 6th class about neuroscience research

NeuWrite Senior Editor (Stanford Based)

Jan-July 2021

- Served as a Senior Editor for *Defining and Dismantling Anti-Black Racism in Neuroscience Series*

Diversity Organization (DO!) Member (UNM, Albuquerque, NM)

Aug 2020-Present

- Organization in Psychology Department that aims to promote diversity in Psychology research and training

Project for New Mexico Graduates of Color (UNM, Albuquerque, NM)

Aug '19 - '20, Present

- Student-led program that promotes diversity and provides support for underrepresented students

- Responsibilities include attending mentoring orientation, workshops, and social dialogues, and meeting with mentees monthly

Rio Rancho High School Science Fair Judge (Rio Rancho, NM) Jan 2019, Jan 2023

- Judged science fair for 9-12 grade students

STEMFest (NIU, Dekalb, IL) Oct 2017

- Taught children and the community about neuroscience and the brain.

STEMFest (NIU, Dekalb, IL) Oct 2016

- Taught children and the community about psychology and neuroscience

Science Day (Geneva Middle School, Geneva, IL) Mar 2016

- Taught middle school students about science and the brain

Public Relations Officer (UNM, Albuquerque, NM)

International Honor Society in Psychology (Psi Chi)

Aug-Dec 2013

- Publicized local events, programs, and activities for the organization
- Promoted interaction and co-sponsorship with other campus organizations
- Assisted in coordinating fundraisers for university chapter and local charities
- Attended monthly meetings to discuss upcoming events
- Held weekly office hours to discuss participation with active members

Career Fair (El Camino Real Charter School, Albuquerque, NM) Mar 2013

- Taught K-12 students about psychology and neuroscience

PROFESSIONAL MEMBERSHIPS

- | | |
|---|---------------------|
| • American Medical Writers Association (AMWA) | March 2022-May 2023 |
| • International Society to Advance Alzheimer's Research and Treatment (ISTAART) | Aug 2020-Oct 2021 |
| • Black in Neuro | July 2020-Present |
| • Society for Neuroscience (Chicago Chapter) | Fall 2016-2018 |
| • Midwestern Psychological Association | Aug 2015-2017 |
| • Society for Neuroscience | Jan 2014-Present |