

A. Ayanna Wade

Center for Neuroscience • University of California, Davis • 1544 Newton Court, Davis, CA 95618
aawade@ucdavis.edu • (815) 901-3768 • www.linkedin.com/in/a-ayanna-wade

EDUCATION

- Sept 2015-Present** **Ph.D. in Neuroscience, UC Davis, anticipated 2020/2021**
- Dissertation title: Gene expression dysregulation and synaptic pathology associated with *Chd8* haploinsufficiency
 - Dissertation Committee: Alex Nord (Advisor & Chair), Janine LaSalle, Ben Montpetit, Brian Wiltgen, Karen Zito
- Aug 2011-May 2015** **B.A. in Neuroscience; Philosophy, Augustana College, cum laude**
- Honors project title: Individual differences in attentional control modulate the potential impact of rejection on moral decision making
 - Advisor: Shara Stough

TEACHING EXPERIENCE

- April 2019-June 2019** **Teaching Assistant, Dept. of Molecular & Cellular Biology, UC Davis**
- Designed exams and problem-based learning exercises for a genetics course
 - Taught students using problem-based modules and evidence-based practices
 - Graded exams, held office hours, managed the Canvas site, and helped conduct lectures
- Aug 2014-May 2015** **Psychology Assistant, Dept. of Psychology, Augustana College**
- Created and organized course materials for a developmental psychology course
 - Graded exams and assignments, managed the Moodle site, and performed other various administrative tasks

RESEARCH EXPERIENCE

- Aug 2015-Present** **Center for Neuroscience, UC Davis**
Doctoral Student Researcher, Advisor: Alex Nord
Research focus: Understanding chromatin biology and synaptic function related to specific aspects of ASD neurobiology
- Evaluate mechanisms of gene dysregulation in a heterozygous knockout mouse model of the ASD-associated chromatin remodeler *Chd8*
 - Investigate behavioral and synaptic pathology associated with constitutive and conditional *Chd8* mutations
- Aug 2013-Nov 2014** **Dept. of Psychology, Augustana College**
Undergraduate Researcher, Advisors: Dan Corts & Shara Stough
- Investigated how conscious and unconscious factors, such as attention, affect memory encoding and retrieval and decision making
 - Developed hypotheses, experimental design, and procedures, recruited and tested participants, analyzed and interpreted collected data, and drafted manuscripts
- June 2014-Nov 2014** **Dept. of Psychology, Stanford University**
Undergraduate Researcher, Advisor: James Gross
- Created and validated a large and mixed emotion-specific film clip library resource for empirically studying mixed emotion in participants
 - Helped develop and pilot-test the project, created the assay for testing, recruited participants, collected and managed a large dataset generated using the Amazon Mechanical Turk crowdsourcing website, analyzed and interpreted data, and co-authored the manuscript
- Jun 2013-July 2013** **Dept. of Neurology, Dept. of Psychological & Brain Sciences, Univ. of Iowa**
Research Assistant, Advisor: Daniel Tranel

- Tested whether autobiographical memories recalled in response to music stimuli had more detail and emotional valence than memories recalled by other stimuli
- Created experimental stimuli, tested and recruited participants, and coded and analyzed data

FELLOWSHIPS AND AWARDS

Jun 2019-Present	NIH Ruth L. Kirschstein National Research Service Award Fellow, UC Davis
July 2016-Present	NIH Molecular and Cellular Biology T32 Trainee, UC Davis
Jun 2019	Helmsley Charitable Trust Fellowship, Cold Spring Harbor Laboratory
Jun 2019	Ling-Lie Chau Graduate Student Award for Brain Research, UC Davis
Sept 2018-May 2019	Professors for the Future Fellow, UC Davis
Sept 2018	Center for Neuroscience Outstanding Service Award, UC Davis
Aug 2015-June 2016	NIH Initiative for Maximizing Student Development Trainee, UC Davis
Aug 2011-May 2015	Presidential Scholarship, Augustana College
Aug 2011-May 2015	Cultural Diversity Award, Augustana College
Jun 2014-Aug 2014	Stanford Summer Research Program/Amgen Scholar, Stanford University
Sept 2013, Mar 2014	Student Research Travel Grant, Augustana College
Mar 2014	Student Research Grant, Augustana College
Jun 2013 - Aug 2013	Summer Research Opportunity Program Scholar, Univ. of Iowa

PUBLICATIONS

1. Ellegood J, Petkova SP, Kinman A, Qiu LR, **Wade AA**, Fernandes DJ, Lindenmaier Z, Creighton A, Nutter L, Nord AS, Silverman JL, Lerch JP. *Neuroanatomy and behaviour in mice with a haploinsufficiency of AT-Rich Interactive Domain 1B (ARID1B) throughout development*. bioRxiv 2020.03.31.017905. doi: <https://doi.org/10.1101/2020.03.31.017905>.
2. Haigh JL, Adhikari A, Copping NA, Stradleigh TW, **Wade AA**, Catta-Preta RF, Su-Feher L, Zdilar I, Morse SJ, Fenton TA, Nguyen AB, Quintero DM, Sramek M, Carter JL, Gompers AL, Lambert JT, Canales CP, Pennacchio L, Visel A, Dickel D, Silverman JL, Nord AS. *Deletion of a non-canonical promoter regulatory element causes loss of Scn1a expression and epileptic phenotypes in mice*. bioRxiv 766634. doi: <https://doi.org/10.1101/766634>.
3. **Wade AA**, Lim K, Catta-Preta R, Nord AS. *Common CHD8 genomic targets contrast with model-specific transcriptional impacts of CHD8 haploinsufficiency*. Front Mol Neurosci. 2019 Jan 14. PMID: 30692911.
4. Gompers AL, Su-Feher L, Ellegood J, Copping NA, Riyadh MA, Stradleigh TW, Pride MC, Schaffler MD, **Wade AA**, Catta-Preta R, Zdilar I, Louis S, Kaushik G, Mannion BJ, Plajzer-Frick I, Afzal V, Visel A, Pennacchio LA, Dickel DE, Lerch JP, Crawley JN, Zarbalis KS, Silverman JL, Nord AS. *Germline Chd8 haploinsufficiency alters brain development in mouse*. Nat Neurosci. 2017 Jun 26. PMID: 28671691.
5. Samson AC, Kreibig SD, Soderstrom B, **Wade AA**, Gross JJ. *Eliciting positive, negative, and mixed emotional states: A film library for affective scientists*. Cogn Emot. 2016 Aug 30. PMID: 25929696.

PRESENTATIONS

1. **Wade AA**, Canales CP, Zdilar I, Gompers AL, Su-Feher L, Nord AS. *Altered RNA processing in Chd8 haploinsufficient mice*. Poster. Annual Society for Neuroscience Meeting, October 23rd, 2019, in Chicago, IL.
2. **Wade AA**, Canales CP, Zdilar I, Gompers AL, Stradleigh TW, Nord AS. *Synaptic gene dysregulation in Chd8 haploinsufficient mice*. Poster. 5th Annual UC Davis Health Human Genomics Symposium, November 16th, 2018, in Sacramento, CA.
3. **Wade AA**, Canales CP, Zdilar I, Gompers AL, Stradleigh TW, Nord AS. *Synaptic gene dysregulation in Chd8 haploinsufficient mice*. Poster. Annual Society for Neuroscience Meeting, November 3rd, 2018, in San Diego, CA.
4. Petkova SP, **Wade AA**, Nord AS, Lerch JP, Ellegood J, Silverman JS. Haploinsufficiency of the AT-rich interactive domain 1B (ARID1B) causes developmental delay and behavioral and anatomical pathology related to intellectual disability. Poster. Annual Society for Neuroscience Meeting, November 4th, 2018, in San Diego, CA.
5. **Wade AA**, Lim K, Catta-Preta R, Nord AS. *Disruptions to RNA Processing and Gene Regulation as Convergent Mechanisms Associated with Mutation to CHD8*. Poster. Cold Spring Harbor The Biology of Genomes Annual Meeting, May 11th, 2018, in Cold Spring Harbor, NY.
6. Nord AS, **Wade AA**, Su-Feher L, Zdilar I, Catta-Preta R, Lim KJ, Stradleigh TW, Gompers AL. Transcriptional regulation mediated via dosage-sensitive Chd8 genomic interaction in mouse forebrain. Poster. Annual Society for Neuroscience Meeting, November 14th, 2017, in Washington, DC.

7. **Wade AA**, Lim K, Catta-Preta R, Nord AS. *Reanalysis of Sequencing Data from CHD8 Experimental Models to Examine the Role of CHD8 in Neurodevelopment*. Poster. Annual Molecular Psychiatry Meeting, October 6th, 2017, in San Francisco, CA.
8. **Wade AA**, Nord AS. *CHD8-dependent gene regulation in neurodevelopment and autism spectrum disorder*. Oral presentation. Annual Molecular and Cellular Biology Training Program Retreat, October 21st, 2017, in Fallen Leaf Lake, CA.
9. **Wade AA**, Nord AS. *Chd8 and chromatin biology in the study of autism*. Oral presentation. Annual Neuroscience Retreat, September 23rd, 2017, in Davis, CA.
10. **Wade AA**, Su-Feher L, Gompers A, Catta-Preta R, Zdilar I, Stradleigh TW, Nord AS. *Epigenomic mechanisms underlying pathology in Chd8 haploinsufficiency*. Poster. International Meeting for Autism Research, May 11th, 2017, in San Francisco, CA.
11. **Wade AA**, Nord AS. *The role of a chromatin remodeler, Chd8, in autism*. Oral presentation. Annual Molecular and Cellular Biology Training Program Retreat, October 22nd, 2016, in Fallen Leaf Lake, CA.
12. **Wade AA**, Stough S. *Individual differences in attentional control modulate the potential impact of rejection on moral decision making*. Poster. Midwestern Psychological Association Annual Conference, April 30th, 2015, in Chicago, IL.
13. **Wade AA**, Samson A, Gross J. *Eliciting amusement, disgust, and mixed emotional states: A film library for affective scientists*. Poster. Stanford Summer Research Program Poster Session, August 20th, 2014, in Stanford, CA.
14. **Wade AA**, Gross J. *Eliciting amusement, disgust, and mixed emotional states: A film library for affective scientists*. Oral presentation. Stanford Summer Research Program Symposium, August 21st, 2014, in Stanford, CA.
15. Depa K, Corts D, Barnes D, **Wade AA**, Moriarty M. *Fading affect bias does not distinguish anger from sadness*. Poster. Association for Psychological Science Annual Convention, May 24th, 2014, in San Francisco, CA.
16. Depa K, Barnes D, **Wade AA**, Moriarty M, Corts D. *Fading affect bias for shared emotional experiences*. Poster. Midwestern Psychological Association Annual Conference, May 1st, 2014, in Chicago, IL.
17. Corts D, Depa K, **Wade AA**, Moriarty M. *Self-directed forgetting and levels of processing*. Poster. Psychonomic Society Annual Scientific Meeting, November 15th, 2013, in Toronto, ON.
18. **Wade A**, Belfi AM, Tranel D. *Increased memory vividness in music-evoked autobiographical memories*. Poster. 8th Annual Summer Undergraduate Research Conference, July 31st, 2013, in Iowa City, IA.

OTHER EXPERIENCE

April 2019	UC Davis Center for Educational Effectiveness Hybrid & Online Courses Workshop Series <ul style="list-style-type: none"> • Teaching and Learning in E-Learning Spaces • Intro to Hybrid and Online Courses • Theories of Inclusive Online Course Design • Assessing Student Learning in Online Environments • Fostering Active Learning & Collaboration in E-Learning Environments • Creating Digital Content for Accessible Teaching and Learning
March 2019	UC Davis Data Science Initiative Intro to Python for Data Analysis Workshop <ul style="list-style-type: none"> • What Python is and how it's organized • Demo types of tasks Python is well-suited for • Delve into common libraries useful for when working with data
June 2019	Cold Spring Harbor Laboratory Statistical Methods for Functional Genomics Course <ul style="list-style-type: none"> • Basic statistical theory, hypothesis testing, experimental design, quality control, and normalization • Expression profiling, protein binding, chromatin footprinting, DNA methylation, and machine learning with high-throughput sequencing data • Subfield-specific use of the R environment for computing and visualization, including the use of Bioconductor
January 2019	UC Davis Data Science Initiative Data Carpentry Workshop <ul style="list-style-type: none"> • Data organization in spreadsheets

- OpenRefine for data cleaning
- Introduction to programming in R
- Data analysis and visualization in R

January 2019

Seminar on College Teaching Course

- Explored perspectives and topics important for teaching a college-level course
- Investigated and discussed skills for effective college teaching
- Gave discipline-specific lectures before and after improvement with peer feedback
- Reflected on their experience with course skills and material.

March 2019

UC Davis Bioinformatics Core Bioinformatics Prerequisites Workshop

- Introduction to the command line
- Installing software on a computing cluster
- Use of basic high-throughput sequencing tools
- Advanced command line and shell scripting
- Construction and application of bioinformatics pipelines
- Introduction to programming in R
- Statistical concepts and model building in R
- R markdown and notebooks

October 2017

UC Davis Data Science Initiative Computing on Clusters Workshop

- Introduction to high performance computing
- Job submission using SLURM

Aug 2013-May 2014

Assistant Residence Director in Office of Residential Life, Augustana College

- Selected, trained, evaluated, managed, and facilitated personal development of Res Life staff
- Performed administrative tasks and policy enforcement for residence hall management
- Supervised building activities and events, and developed community-building programming to for residents and staff
- Performed all tasks expected of a Community Advisor

Aug 2012-May 2013

Community Advisor in Office of Residential Life, Augustana College

- Developed activities to help residents build interpersonal skills, personal responsibility, and sense of community
- Maintained contact with residents to ensure their success and safety
- Performed conflict resolution, policy enforcement, crisis response, basic residence hall management, administrative tasks
- Participated in personal and professional development workshops

SERVICE

Feb 2019-Present

Guardian Scholars Program, Success Coach, UC Davis

- Used strengths-based and active-listening approaches to guide students toward their goals in one-on-one consultations
- Helped students build awareness, formulate steps toward action, set goals, monitor their progress, and hold themselves accountable
- Designed professional development training workshops for Guardian Scholars fellows
- Completed various administrative duties including maintaining attendance records and student progress
- Connected students with relevant campus resources, as necessary
- Received Success Coach, Guardian Scholars Mentorship, student development, and professional development training

Jan 2019-Present

First Year Aggie Connection, Facilitator, UC Davis

- Developed modules assisting students in academic success based on educational learning theory in a connection titled, "Active Learning in Action"
- Informed students about campus resources and wellness

Dec 2019-March 2020

Neuroscience Graduate Group Admissions Committee, Student Member, UC Davis

- Personally evaluated 80 applications using holistic review approaches

- Helped select 40 students from a pool of about 200 applicants to interview
- Interviewed applicants and served as a resource from a trainee perspective
- Provided follow-up and encouragement to admitted candidates

May 2018-June 2019 Equity in STEM & Entrepreneurship, President, UC Davis

- Ran executive committee and general member meetings
- Facilitated discussions with members on equity, diversity, and inclusion
- Completed administrative tasks and fundraising
- Planned professional development activities in conjunction with the Prof. Dev. VP
- Set yearly goals with the executive committee to execute the group mission

April 2019 Science Outreach Symposium, Co-coordinator, UC Davis

- Coordinated a symposium titled, Science Outreach: How to Increase the Impact of Your Work
- Invited UC Davis and Bay Area speakers to share their outreach expertise and experiences
- Presented the K-12 and community outreach expert talk

April 2019 Graduate Diversity Forum Student Volunteer, UC Davis

- Invited to run a booth for the College of Biological Sciences
- Fielded questions about graduate school including how to learn more information, get research experience, what it's like, and how to be competitive

Jan 2018-April 2019 Neuroscience Initiative to Enhance Diversity, Coordinator, UC Davis

- Invited 30+ diverse undergraduate attendees to campus to learn about graduate school
- Planned and coordinated: transportation, a Farmer's market visit, student panels, lab tours, datablitz, poster presentations, mock interviews, a campus tour, and small group dinners
- Recruited and managed 20+ student volunteers
- Worked with the graduate program coordinator to complete other administrative tasks

June 2018 Seminar Outreach for Minority Advocacy Summit, Invited Speaker, UC Davis

- Presented a talk about how to address barriers causing a lack of representation, recruitment, and retention of diverse individuals in higher education, academia, and STEM

May 2018 BIS 198, Invited Guest Speaker, UC Davis

- Presented an hour-long talk for the Exploring Biological Sciences (BIS 198) professional development seminar about my research
- Provided advice regarding a career in academia highlighting my personal experience

April 2016-May 2018 Brain Awareness Week Elementary Outreach, Coordinator, UC Davis

- Invited and coordinated personalized neuroscience learning experiences for 12 local underserved elementary school classrooms
- Designed hands-on science modules for third grade students
- Recruited and managed 12+ student volunteers
- Analyzed and produced reports on visit outcome feedback for future grant opportunities

Oct 2017-May 2018 Equity in STEM & Entrepreneurship, STEM Stars Coordinator, UC Davis

- Coordinated a STEM learning experience for Shirley Rominger Intermediate school
- Created hands-on modules in various topics in STEM and entrepreneurship
- Recruited and managed 10+ student volunteers
- Analyzed and produced reports on visit outcome feedback for future grant opportunities

Oct 2017-May 2018 Equity in STEM & Entrepreneurship, Outreach & PR Committees Member, UC Davis

- Helped plan a colloquium designed to promote discussions of diversity and equity with the public and members of academia and industry in the context of STEM and entrepreneurship
- Planned and volunteered for various outreach events in underserved middle school and elementary classrooms

Mar 2016, 2018-2019 NeuroFest, Volunteer, UC Davis

- Designed and ran a booth educating the public about topics in neuroscience including neurogenomics, neuroanatomy, neuroplasticity, and neurodevelopmental disorders
- Created a video documenting day-in-the-life graduate student experiences for undergraduate

and high school attendees

- Jan 2016-2018 Initiative for Maximizing Student Development Volunteer, UC Davis**
- Invited to serve on a panel for new graduate students regarding graduate school experiences
- Jan 2018 Interactive Q&A with Dr. Marcia McNutt, Panel Member, UC Davis**
- Invited to serve on a panel discussion with the President of the National Academy of Science and other UC Davis students and faculty
 - Topics included: Sexual harassment in STEM (anchored on findings from the NASEM report from the Academy), women in STEM, career and family balance
- July 2017 Sacramento Breakthrough CNS Visit, Volunteer, UC Davis**
- Served as a resource and rotation guide to help underserved middle school students learn about science and graduate school
- May 2017 Brain Awareness Week High School Outreach, Volunteer, UC Davis**
- Led an interactive neuroscience module for underserved high school students
- Feb 2016-2017 Neuroscience Initiative to Enhance Diversity, Volunteer, UC Davis**
- Served as a panel member to explain my path and my experiences as a graduate student
 - Encouraged underserved undergraduates from across the country toward a career in science
- May 2015 NeurFest Neuroscience Community Outreach Event, Volunteer, Augustana College**
- Led hands-on neuroscience activities with local, underserved elementary school students
- Aug 2013-May 2015 Augustana Psychology Club and Collegiate Psi Chi Chapter, President, Augustana College**
- Planned and led biweekly discussions surveying various topics in Psychology
 - Managed elections, inductions, and various other administrative activities for the collegiate chapter
- March 2014 EPIC Academy Charter High School Visit Day, Augustana College**
- Led a discussion including my experiences as an underrepresented minority undergraduate pursuing a degree in science and the arts
 - Encouraged students from a Chicago-based charter school to apply for and attend college