

Megan A. Williams, Ph.D.

307 Neely Ct.
Franklin, TN 37067
(701) 400-7696
megan.williams@vanderbilt.edu

EDUCATION

Vanderbilt University, Nashville, TN

Ph.D. in Neuroscience

May 2015

Advisor: Danny Winder, Ph.D.

Certificate in College Teaching

University of North Dakota, Grand Forks, ND

B.S. in Biology and Chemistry, summa cum laude

May 2009

Minor: Mathematics

Secondary Education Program

POSITIONS

Vanderbilt University, Nashville, TN

Assistant Director, Medical Scientist Training Program

July 2015-present

- Direct Admissions and Recruiting Processes for MSTP

- Vice-Chair, MSTP Admissions Committee (MAC)

Sept 2017-present

- Manage Communications for MSTP including website, social media, and monthly newsletter

- Founding Director, MSTP Summer Undergraduate Research Program (VM-SURP)

June 2016-present

- Manager, MSTP Programming

June 2017-present

- Lunches with Leaders

- Southeastern Medical Scientist Symposium

- Direct MSTP Outreach

July 2015-present

- AAMC GREAT Group MD/PhD Section Communications Committee

Jan 2019-present

RESEARCH EXPERIENCE

Vanderbilt University, Nashville, TN

Doctoral Candidate Research

Aug. 2009-May 2015

Advisor: Dr. Danny Winder

- Analyzed the effects of stress and norepinephrine on rostral linear nucleus dopamine neurons in mice

- Utilized a transgenic mouse model for immunohistochemistry and whole cell electrophysiology experiments in brain slices

- Key finding: norepinephrine increases excitatory transmission onto rostral linear nucleus dopamine neurons via activation of the α_1 adrenergic receptor

University of North Dakota, Grand Forks, ND

Undergraduate Research Assistant

June 2008-May 2009

Advisor: Van Doze, Ph.D.

- Performed field electrophysiology experiments on mouse hippocampal brain slices

- Conducted behavioral tests on transgenic mouse lines and analyzed data

University of North Dakota, Grand Forks, ND

Lab Assistant

Aug. 2004-Nov. 2004

Advisor: Min Wu, Ph.D.

- Performed molecular biology techniques
- Maintained general lab cleanliness

TEACHING EXPERIENCE

Vanderbilt University, Nashville, TN

Guest Lecture, Neurobiology of Addiction

Spring 2015

- Prepared and gave 3 guest lectures in an undergraduate Neuroscience course
- Led group discussion session based on the lectures

Vanderbilt University, Nashville, TN

Guest Lecture, The School for Science and Math at Vanderbilt

Spring 2012-2015

- Prepared and gave 4 annual guest lectures to high school students

Vanderbilt University, Nashville, TN

Teaching Assistant, Parkinson's Disease IGP module

Spring 2012

- Maintained course attendance and student participation records
- Graded student exams
- Created and taught 1 guest lecture

Central High School, Grand Forks, ND

Biology Student Teacher

Spring 2009

- Developed and implemented multiple units in a high school biology classroom with the aid of a licensed cooperating teacher
- Graded assignments and exams; maintained course grades

Department of Chemistry, University of North Dakota, Grand Forks, ND

Undergraduate Teaching Assistant

Fall 2007-Spring 2008

- Assisted students during lab experiments and office hours
- Prepared and conducted pre-lab lectures; graded lab reports
- Proctored lecture exams and final exams

Department of Mathematics, University of North Dakota, Grand Forks, ND

Tutor, Mathematics Learning Center

Fall 2005-Spring 2008

- Tutored individual or small groups of students in various undergraduate mathematics courses from College Algebra through Calculus II

Early Childhood Learning Center, Bismarck, ND

Summer Teaching Assistant

Summer 2005-2007

- Interacted with children during play, learning activities, and on fieldtrips
- Assisted in planning and leading learning activities for the children

Grand Forks Public School District, Grand Forks, ND

Tutor, Red River High School

Nov. 2004-May 2005

- Mentored and tutored high school students in a variety of subjects including Biology, Chemistry, Geometry, Algebra, and English.

PUBLICATIONS

Williams MA, Li C., Kash TL, Matthews RT, and Winder DG. (2014) Excitatory drive onto dopaminergic neurons in the rostral linear nucleus is enhanced by norepinephrine in an $\alpha 1$ adrenergic receptor-dependent manner. *Neuropharmacology* 86:116-24.

POSTER PRESENTATIONS

Fettig MA, Zhou J, Choi KW, Olsen CM, Matthews RT, and Winder DG. (2014, January). Stress and noradrenergic modulation of extended amygdala projecting dopamine neurons of the rostral linear nucleus. Poster. Vanderbilt Kennedy Center Science Day, Nashville, TN.

Fettig MA, Zhou J, Choi KW, Olsen CM, Matthews RT, and Winder DG. (2013, November). Stress and noradrenergic modulation of extended amygdala projecting dopamine neurons of the rostral linear nucleus. Poster. Annual meeting of the Society for Neuroscience, San Diego, CA.

Fettig MA, Zhou J, Choi KW, Olsen CM, Matthews RT, and Winder DG. (2013, January). Stress and noradrenergic modulation of extended amygdala projecting dopamine neurons of the rostral linear nucleus. Poster. Vanderbilt Kennedy Center Science Day, Nashville, TN.

Received award for top graduate student presentation.

Fettig MA, Zhou J, Choi KW, Olsen CM, Matthews RT, and Winder DG. (2012, October). Stress and noradrenergic modulation of extended amygdala projecting dopamine neurons of the rostral linear nucleus. Poster. Annual meeting of the Society for Neuroscience, New Orleans, LA.

Fettig MA, Matthews RT, Choi KW, Zhou J, Li C, Kash TL, and Winder DG. (2012, January). Stress and noradrenergic modulation of A10dc dopamine neurons. Poster. Vanderbilt Kennedy Center Science Day, Nashville, TN.

Fettig MA, Luger EJ, Darsie B, Wald JM, Higgins EE, Bernston S, Haselton J, Perez D, Rorabaugh B, Doze VA. (2008, October) Alpha-1A adrenergic receptor activation reduces depression and anxiety in mice. Poster. Undergraduate Research in Molecular Sciences Regional Competition in conjunction with ASBMB and ACS, Fargo, ND. **Received Honorable Mention**

Fettig MA, Goldenstein BL, Nelson BW, Xu K, Wald JM, O'Shea LA, Doze VA. (2008, September) Alpha-2 adrenergic receptor inhibition of hippocampal epileptiform activity: comparisons of ligand efficiency and potency. Poster. ND EPSCoR conference, Grand Forks, ND.

Fettig MA, Goldenstein BL, Xu K, Nelson BW, Wald JM, O'Shea LA, Luger EJ, Doze VA. (2008, August) Alpha-2A adrenergic receptor activation inhibits mouse hippocampal CA3 network activity. Poster. REU poster session, Grand Forks, ND.

AWARDS, HONORS, GRANTS

- NIDA Predoctoral NRSA Fellowship (F31 DA034429-02) 2013-2015
- Top Graduate Student Poster Presentation in Cellular and Molecular category at Vanderbilt Kennedy Center Science Day Jan 2013
- Ion Channel & Transporter Biology training grant (T32 NS07491) 2010-2011

SERVICE AND OUTREACH

- Speaker and organizer "MD/PhD Career Paths: Conversations with Physician-Scientists" ABRCMS 2019 in Anaheim, CA Nov 2019
- Invited speaker and panelist on "MD/PhD: Is it Right for Me?" Leadership Alliance National Conference in Hartford, CT July 2019
- Invited small group facilitator "Administrators Session" at AAMC GREAT Group MD-PhD Section Professional Development Meeting in Bethesda, MD July 2019
- Invited panelist on "MD/PhD: Is it Right for Me?" NIH Graduate and Professional School Fair in Bethesda, MD July 2019
- Invited panelist on "Admissions Panel" at Meharry Medical College in Nashville, TN June 2019
- Invited speaker and panelist on "MD/PhD: Is it Right for Me?"

- Leadership Alliance National Conference in Hartford, CT July 2018
- Invited speaker “Graduate and Medical School Admissions” at Fisk University in Nashville, TN July 2018
- Invited panelist on “Admissions Panel” at Meharry Medical College in Nashville, TN June 2018
- Vanderbilt University Staff Advisory Council Member 2016-2018
- Invited panelist “MD/PhD Admissions” at Southeastern Medical Scientist Symposium in Atlanta, GA November 2017
- Invited speaker “Graduate and Medical School Admissions” at Oakwood University in Huntsville, AL March 2017
- Invited panelist on “Admissions Panel” at the Midwest Pre-Health Conference in Bowling Green, OH October 2015
- Invited speaker “Vanderbilt MSTP” at Northwestern University September 2015
- Neuroscience Student Organization Outreach Coordinator 2011-2012
 - Organized Vanderbilt Brain Blast 2012 – recruited volunteers and booths, assisted in advertising and organization of event logistics
 - Assisted with organization of student invited speaker and other NSO meetings and events

PROFESSIONAL AFFILIATIONS

- National Association of Advisors for the Health Professions member 2015-present
- Phi Beta Kappa Honor Society member 2007-present