

SYDNEY E. ASHTON

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EDUCATION

- 2017 –** **Ph.D. in Neuroscience** | **University of Maryland School of Medicine**, Baltimore, MD.
- 2013 – 2017** **B.S. in Biology with Distinction** | **James Madison University, Harrisonburg, VA.**
Cum laude, Honors College. Major GPA 3.70
- 2009 – 2013** **High School Diploma** | **Washington High School**, Charles Town, WV. *Summa cum laude*, National Honor Society

RESEARCH EXPERIENCE

- 2018 –** **Graduate Research Assistant**, University of Maryland School of Medicine
Faculty Mentor: Margaret McCarthy, Ph.D.
- 2015 – 2017** **Honors Thesis Student**, James Madison University
Faculty Mentor: Rocky Parker, Ph.D.
Thesis: *Sex and seasonal differences in mRNA expression of sex steroid hormone receptors in the red-sided garter snake (Thamnophis sirtalis parietalis)*

HONORS AND AWARDS

- 2017 – 2019** **Institutional Training Grant**, Training Program in Neuroscience T32NS063391, University of Maryland School of Medicine
- 2017** **Charlotte Mangum Support Award**, Society for Integrative and Comparative Biology, New Orleans, LA
- 2016** **Best Student Presentation, First Place**, UMBC Undergraduate Research Symposium in the Chemical and Biological Sciences, Baltimore, MD
- 2013 – 2017** **Madison Achievement Award**, James Madison University, Harrisonburg, VA
- 2012** **Governor's Honors Academy of West Virginia**, the State of West Virginia and the West Virginia Department of Education

PUBLICATIONS

VanRyzin, JW, AE Marquardt, KJ Argue, HA Vecchiarelli, **SE Ashton**, SE Arambula, MN Hill, and MM McCarthy. (2019). Microglial Phagocytosis of Newborn Cells Is Induced by Endocannabinoids and Sculpt Sex Differences in Juvenile Rat Social Play. *Neuron*.

Ashton, SE, BJ Vernasco, IT Moore, and MR Parker. (2018). Sex and seasonal differences in mRNA expression of estrogen receptor α (ESR1) in red-sided garter snakes (*Thamnophis sirtalis parietalis*). *General and comparative endocrinology*.

INVITED TALKS

SE Ashton & MR Parker. (2017). Searching for sex differences in snake skin. 57th Annual Meeting of the Society of Integrative and Comparative Biology. New Orleans, LA.

POSTER PRESENTATIONS

SE Ashton & MM McCarthy. (2019). Investigating developmental origins of sex differences in the rewarding properties of juvenile rat social play. 49th Annual Meeting of the Society for Neuroscience, Chicago, IL.

MM McCarthy, JW VanRyzin, KE Kight, EL Reinl, AE Marquardt, SE Arambula, **SE Ashton**, KT Davis, LA Pickett, and A Holley. (2019). Characterization of a CRISPR-generated rat model containing eGFP-Iba1 for study of microglia. 49th Annual Meeting of the Society for Neuroscience, Chicago, IL.

SE Ashton & MM McCarthy. (2019). Exploring sex differences in the rewarding properties of juvenile rat social play. Sex Differences, Dimorphisms, Divergences: Impact on Brain and Behavior in Health and Disease, Erice, Italy.

SE Ashton & MR Parker. (2017). Searching for sex differences in snake skin. Joint Meeting of Ichthyologists and Herpetologists, New Orleans, LA.

SE Ashton & MR Parker. (2016). Searching for sex differences in snake skin. 19th Annual UMBC Undergraduate Research Symposium in the Chemical and Biological Sciences, Baltimore, MD.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

2020 – Society for Behavioral Neuroendocrinology

2017 – Society for Neuroscience

2016 – 2017 Society for Integrative and Comparative Biology

TEACHING AND MENTORSHIP EXPERIENCE

2019 **Mentor, Program in Neuroscience Rotation Students**, University of Maryland School of Medicine

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2015 – 2017 **Biology Tutor, James Madison University**

Organisms, Ecology and Evolution, Cell and Molecular Biology

2017 **Teaching Assistant, Freshman Symposium in Biology**, James Madison University

2017 **Teaching Assistant, Honors First Year Seminar**, James Madison University

2015 **Teaching Assistant, Cell & Molecular Biology Lab**, James Madison University

UNIVERSITY SERVICE AND COMMUNITY OUTREACH

2020 **Judge, Annual Roland Park Middle School Science Fair**, Baltimore City Public Schools

2020 – **Examiner, Program in Neuroscience Mock Qualification Exam**, University of Maryland School of Medicine

2019 **Student Representative, Program in Neuroscience Seminar Series Selection Committee**, University of Maryland School of Medicine

2019 **Ethics Leader, Graduate School Orientation**, University of Maryland School of Medicine

2019 **UMB Representative, GBSfN Meeting Planning Committee**, Greater Baltimore SfN Chapter

2019 – **Brain Awareness Week Chair, Neuroscience Outreach and Volunteer Association (NOVA)**, University of Maryland School of Medicine

2019 – **Scientist Pen Pal, Letters to a Pre-Scientist**

- 2019 –** **Committee Member, Program in Neuroscience Student Training Committee,** University of Maryland School of Medicine
- 2019 –** **Mentor, Científico Latino Graduate School Mentorship Initiative** for underrepresented students applying to STEM PhD programs
- 2019 –** **Core Scientist and Organizer, Rural STEM Education Program,** Johns Hopkins University
- 2018 –** **Program in Neuroscience Representative, Graduate Student Association,** University of Maryland School of Medicine
- 2017 –** **Member, Neuroscience Outreach and Volunteer Association (NOVA),** University of Maryland School of Medicine
- 2017** **Service Committee Chair, Beta Beta Beta National Biological Honor Society,** James Madison University Psi Beta Chapter
- 2016 – 2017** **Admissions Service Committee Chair, Student Ambassadors,** James Madison University
- 2016 – 2017** **Herpetology Outreach Program (HOP),** James Madison University
- 2016 – 2017** **Member, Beta Beta Beta National Biological Honor Society,** James Madison University Psi Beta Chapter
- 2015 – 2016** **Membership Board, Student Ambassadors,** James Madison University
- 2015 – 2017** **Member, Student Ambassadors,** James Madison University