

Gabriella M. Marino

Education

- 2028 Ph.D. in Neuroscience
 Biomedical Sciences
 Marquette University, Milwaukee, WI
- May 2021 B.A in Psychology; Minors in Biology, Neuroscience, Music
 Marquette University, Milwaukee, WI

Research Experience

- Jan 2022-Present **Graduate Researcher; Sleep, Circadian Rhythms, and Metabolism Lab**
Dr. Deanna Arble, Milwaukee, WI
Examined the effect of leptin receptor expression on sensory afferents in the spinal cord, including the dorsal root ganglion. Also developed a novel mouse model to understand the relationship between leptin receptor expression and clock gene expression
- Jan 2019-May 2021 **Undergraduate Researcher; Aging, Imaging, and Memory Lab**
Dr. Kristy Nielson, Milwaukee, WI
Examined genetic risk and bilateral recruitment with ERP data from Famous Names Discrimination Task. Also aided in project analyzing diffused scalp maps and neural activity in order to further understand hemispheric difference waves using EEG imaging.
- June 2019-May 2021 **Undergraduate Researcher; Sleep, Circadian Rhythms, and Metabolism Lab**
Dr. Deanna Arble, Milwaukee, WI
Examined the effects of photoperiod on breathing patterns in mice under various light/dark cycles. Also aided in a project studying the effects on leptin and melatonin on breathing patterns in wild type and diet-induced obese mice.

Teaching Experience

- August 2020 - Present **Teaching Assistant; Marquette University, Milwaukee, WI**
Assisted in leading lecture and discussion sessions General Chemistry, Systems Neuroscience, and Microbiology. Also aided in grading assignments, taking attendance, and facilitating exam review sessions.
- November 2021 **Guest Lecturer; Marquette University, Milwaukee, WI**
Led three lectures in Systems Neuroscience regarding sleep and circadian rhythms.
- December 2021 **Guest Lecturer; New Berlin West High School, New Berlin, WI**
Led an educational event regarding neuroscientific topics including sensation, perception, and gross neuroanatomy.

Bibliography

Peer Reviewed Publications

Jones, A.A., Nelson, L.R., **Marino, G.M.**, Chappelle, N.A., Joye, D.A.M., Arble, D.M. (2021). Photoperiod manipulation reveals a light-driven component to daily patterns of ventilation in C57Bl/6J mice. *J Biol Rhythms*.

Abstracts

Jones, A.A., Nelson, L.R., **Marino, G.M.**, Chappelle, N.A., Arble, D.M. (2020). Photoperiod manipulation reveals a light-driven component to the daily oscillation in ventilatory drive. Poster Presentation. Society for Research on Biological Rhythms biennial meeting. Virtual Conference.

Marino, G.M., Gregg, T.A., Paitel, E.R., Nielson, K.A. (2021). APOE ϵ 4 and ERP Intraindividual Variability: Emerging Diagnostic Targets for Alzheimer's Disease. Poster Presentation. Marquette University, Milwaukee, WI.

Research Techniques

Rodent animal care and handling. Colony maintenance. Glucose tolerance tests. Intraperitoneal injections. Intermittent hypoxia and hypercapnic ventilatory response testing. Plethysmography. Mouse brain dissection. Cryostat brain slicing. Electroencephalography (EEG). Event-related potential (ERP) analysis. Diffused scalp map analysis. Digital microscopy. Cell culturing. Gel electrophoresis.

Computer Techniques

IBM SPSS Statistics®. Microsoft Excel®. GraphPad Prism®. BioRender®.

Research Interests

1. Biological mechanisms underlying sleep, breathing, and dietary rhythms
2. Effects of sex differences on biological rhythms
3. Translational research concerning sleep apnea, obesity, and diabetes

Honors and Awards

2017-Present	George M. Pullman Educational Foundation Scholar
2017-2021	Marquette University Core Honors Program
2017-2021	Dean's List for the Klingler College of Arts and Sciences
2018-Present	Psi Chi Psychology Honors Society
2018-2021	Disciplinary Honors in Psychology Program
2019-Present	Alpha Sigma Nu Jesuit Honor Society
2021	Recipient of the Contemplatives in Action Student Leadership Award
2021-Present	Phi Beta Kappa Honor Society
2021	Graduated Summa Cum Laude
2021-Present	Marquette University Neuroscience Graduate Fellowship

Relevant Courses

Spring 2022	Endocrinology
Spring 2022	Foundations of Neuroscience 2
Fall 2021	Foundations of Neuroscience 1
Fall 2021	Functional Neuroanatomy
Spring 2021	Genetics
Spring 2021	Peer Tutoring in Psychology
Fall 2020	Experimental Cell Biology
Fall 2020	Physiology
Fall 2020	Peer Tutoring in Psychology
Spring 2020	Cellular Neurobiology
Fall 2019	Cell Biology
Fall 2019	Systems Neuroscience
Summer 2019	Developmental Psychology
Spring 2019	Affective Neuroscience
Fall 2018	Biopsychology

Relevant Work Experience

May 2021-August 2021	Research Technician; Sleep, Circadian Rhythms, and Metabolism Lab Dr. Deanna Arble, Milwaukee, WI
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Assisted in lab protocols including colony maintenance, gel electrophoresis, and dissection procedures. Also facilitated lab meetings and maintained general lab upkeep.

June 2018 -
Jan 2019

Clinical Assistant; Midwestern University, Downers Grove, IL
Executed tasks such as organizing medical documents, setting up appointments, and supporting physicians. Also assisted in the clinical laboratory with specimen collection and culture analysis.

Relevant Volunteer Experience

Jan 2020-Present

Research Liaison; Marquette University, Milwaukee, WI
Worked with Marquette University Student Government to support a more comprehensive relationship between the student body and research community. Also conducted and participated in interviews with various Marquette personnel.

Jan 2022-Present

Undergraduate Tutor; Marquette University, Milwaukee, WI
Worked with a small group of undergraduate students to facilitate learning in various topics, including molecular and cellular biology, neuroscience, and physiology.