

Olivia M. Waldrige

195 Huguelet Drive,
Lexington, KY 40508
olivia.waldrige@uky.edu
(502) 836-3588

EDUCATION

2022 - Present	Master of Biology, University of Kentucky Thesis: Evolution of the Metazoa Circadian Gene Network Advisor: Dr. Vincent Cassone
2018-2022	Bachelor of Arts, Hanover College Major: Biochemistry Advisor: Dr. Timothy Cunningham

TEACHING EXPERIENCE

Fall 2023	Teaching Assistant University of Kentucky Lexington, KY Laboratory instructor for BIO 155 lab in which students learned the introductory skills for understanding and conducting biological research.
Spring 2023	Teaching Assistant University of Kentucky Lexington, KY Laboratory instructor for BIO 209 in which students learned the basic skills on conducting research in a microbiology lab. During this time, I also assisted 11 students participating in BIO 199 STEMCats program in the Cassone Lab.
Fall 2022	Teaching Assistant University of Kentucky Lexington, KY Laboratory instructor for BIO 155 lab in which students learned the introductory skills for understanding and conducting biological research.

ORAL AND POSTER PRESENTATIONS

Summer 2023	Utley, A.*, Stasel, S.M., Waldrige, O.M., Cassone, V.M. 2023. Effects of gut bacteria on the circadian output of <i>Klebsiella aerogenes</i> . SC INBRE/Southeast Regional IDeA Conference 2023. Columbia Metropolitan Convention Center (CMCC). Poster presentation. September 16, 2023
Summer 2023	Sarah M. Stasel ¹ , Olivia M. Waldrige ¹ , Carrie L. Shaffer ^{2,3,4} , and Vincent M. Cassone ¹ . "Melatonin regulates type 1 pilus-dependent biofilm production in diverse uropathogens". Poster. May 2023. RISER Conference. Blacksburg, VA.
Spring 2023	Mentor for 2023 STEMCats. April 2023. "Where Does All my Tylenol™ Keep Going: The <i>E. coli</i> story". Poster. Showcase of Undergraduate Scholars. Lexington, KY.
Spring 2022	Olivia Waldrige ¹ and Kasey Watterson ¹ . March 2022. "Learning Capabilities of <i>Dugesia tigrina</i> ". Poster. Animal Behavior Conference. Bloomington, IN.

PUBLICATIONS

Spring 2023 Kasey Watterson, **Olivia Waldrige**, Katelyn M. Enginger, Cassie M. Winn, and Brian G. Gall. 2023. An Assessment of Learning Modalities in Wild-Caught Freshwater Flatworms (*Dugesia tigrina*). *Ethology, Ecology and Evolution*.

AWARDS

Fall 2023 Scherr Opportunity Award (*University of Kentucky*)

Spring 2023 Rhythms in Southeastern Region meeting Travel Award (*Virginia Tech*)

Fall 2022 Gertrude Ribble Graduate Award (*University of Kentucky*)

CAREER DEVELOPMENT

December 2023 **Phylogenomics Workshop | Physalia Courses | Berlin, Germany** | I participated in a 5-day online workshop specializing in phylogenetic inference and divergence-time estimation with genomic datasets.

May 18th, 2024 **Trainee Professional Development Day | Society for Research on Biological Rhythms | San Juan, Puerto Rico** | I participated in a day-long course devoted to scientific and career development activities for trainees hosted by faculty from around the world. The day consists of a keynote address, a speed networking event, and a series of interactive workshops on topics important for professional development.

ACADEMIC SERVICE & OUTREACH

2023-Present **Biology Graduate Student Association Outreach Chair**, *University of Kentucky*

June 23rd, 2023 **Taylorville Elementary School Field Trip & Nature Walk**, *Spencer County Extension Office* | I assisted the Spencer County Extension office by providing supplies from various labs within the biology department at the University of Kentucky for a children's nature walk.

October 27th 2023 **Spooky Science Event**, *University of Kentucky* | Planned and hosted a Halloween-themed science event for children ages 6-18 in which they were exposed to sublimation experiments, animal anatomy and glowing specimen.

April 1st, 2023 **2023 KY-WV LSAMP Symposium Supporting Underrepresented Undergraduate Populations in STEM**, *University of Kentucky* | Spoke to scholars at a table about the biology graduate opportunities and current research at the University of Kentucky.

RESEARCH EXPERIENCE

2022 – Present Thesis research: Evolution of the Metazoa Circadian Gene Network | Using phylogenomic methods, I analyze various clades throughout the Metazoa kingdom for gene network similarity using the core clock genes as markers.

2022 – Present	Investigating the circadian clock and melatonin sensitivity in human gut commensal bacterium <i>Klebsiella</i> (née <i>Enterobacter</i>) <i>aerogenes</i> .
2020 – 2022	Flatworm Landmark Learning at Hanover College working with Dr. Brian Gall to investigate the learning behaviors of <i>Dugesia tigrina</i> found in the water systems of the United States.
2020	Curricular Undergraduate Research Experience (CURE): Computational Biochemistry. Python, Promol, Dali, BLAST, and Pfam software was utilized.
2016 – 2018	Underwater Research Program at Our Lady of Mercy Academy in Louisville, KY. Through a partnership with Mammoth Cave, a team of four students including myself built and piloted two remote-operated vehicles and discovered novel waterways within the world's largest cave system. https://www.wdrb.com/news/mercy-academy-students-make-historic-discovery-mapping-mammoth-cave/article_ba6aa976-8966-5bd1-8446-63d6cb8fd115.html

STUDENTS MENTORED

L. Grace McDougal	BIO394 Independent Research (Spring, 2023)
Faris Allahham	BIO395 Independent Research (Spring, 2023)
Delaney Rager	Undergraduate lab assistant (Summer, 2023)
Anzlee Utley	KY INBRE Participant (Summer, 2023)

REFERENCES

Dr. Vincent Cassone	vincent.cassone@uky.edu PI/ Graduate Research Advisor.
Dr. Jeramiah Smith	jeramiah.smith@uky.edu Thesis Committee Member.
Dr. Brian Gall	gall@hanover.edu Undergraduate Research Advisor

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