

Edna Chiang

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EDUCATION

University of Wisconsin-Madison

Madison, WI

- Microbiology PhD Candidate, Life Sciences Communication and Biotechnology Minors Sep 2016 - Present
- Advisors: Dr. Garret Suen and Dr. Hannah Carey GPA: 4.00/4.00

University of Michigan

Ann Arbor, MI

- Bachelor of Science with High Distinction Graduation: Apr 30, 2015
- Microbiology (High Honors) and Spanish GPA: 3.85/4.00
- Honors Thesis: Ecology of Verrucomicrobia in a Freshwater Estuary

SELECTED SCIENTIFIC PUBLICATIONS

Regan MD, **Chiang E**, Martin SL, Porter WP, Assadi-Porter FM, Carey HV. (2019) Shifts in metabolic fuel use coincide with maximal rates of ventilation and body surface rewarming in an arousing hibernator. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 316(6):R764-R775. doi: 10.1152/ajpregu.00379.2018.

Chiang E, Schmidt ML, Berry MA, Biddanda BA, Burtner AM, Johengen TH, Palladino D, Deneff VJ (2018) Verrucomicrobia are prevalent in north-temperate freshwater lakes and display class-level preferences between lake habitats. *PLoS ONE* 13(3):e0195112. doi:10.1371/journal.pone.0195112.

NOTABLE PRESENTATIONS

Presentation, "Solving the Mysteries of Hibernation." Kettle Moraine Evening with Nature, Sep 12, 2019, Campbellsport, WI.

Presentation, "Hibernation: How Do They Survive the Winter?" Science On Tap – Minocqua, Jan 2, 2019, Minocqua, WI.

Presentation, "Winter is Coming: A Stark Look at the Hibernator Microbiota." Microbiology Doctoral Training Program Student Seminar, Sep 26, 2018, Madison, WI

RESEARCH EXPERIENCE

Graduate Research Assistant, Dr. Garret Suen and Dr. Hannah Carey, University of Wisconsin-Madison

- Investigated microbe-host interactions in hibernating 13-lined ground squirrels (*Ictidomys tridecemlineatus*) to understand the link between bacterial taxonomy and function Jan 2017 – Present
- Worked with an interdisciplinary team to perform *in vivo* stable isotope assisted labeling experiments
- Increased bioinformatics proficiency by analyzing amplicon sequencing and metagenomic data

Undergraduate Researcher / Lab Technician, Dr. Vincent Deneff, University of Michigan Sep 2012 – Aug 2016

- Optimized fluorescent *in situ* hybridization microscopy protocol, extracted DNA/RNA, prepared samples for amplicon sequencing, created cultures
- Collected water and sediment sample from Muskegon Lake and Lake Michigan
- Applied statistical and bioinformatics techniques to analyze bacterial 16S rRNA data using mother and R

AWARDS

- NSF Non-Academic Research Internships for Graduate Students (INTERN) Supplemental Funding Jul 2019
- NSF Graduate Research Fellowship Sep 2018 – Aug 2023
- NIH Biotechnology Training Program Traineeship Jan 2017 – Aug 2019
- Dr. Leonard E. Mortenson Graduate Scholarship Apr 2019
- University of Wisconsin-Madison Student Research Travel Grant Sep 2018
- Bacteriology Graduate Student Travel Award May 2018
- Phi Beta Kappa Mar 2015
- Beckman Scholars Fellowship May 2014 – Aug 2015
- American Society of Microbiology Undergraduate Research Fellowship May 2014 – Dec 2014

SELECTED OUTREACH EXPERIENCE

Science Policy Fellow, Federation of American Societies for Experimental Biology May 2019 – Aug 2019

- Worked in the Office of Public Affairs on an NSF advocacy and educational campaign called “NSF Matters”
- Helped to coordinate a congressional briefing about NSF-funded research addressing the public health concern of antimicrobial resistance
- Contributed articles to the Washington Update newsletter to inform society members of the latest news in science policy and advocacy

Gaining STEAM! Scientist, Jkx Comics, University of Wisconsin-Madison Oct 2018 – Present

- Created a comic book about hibernation microbiology by integrating science, story-telling, and art through a collaboration with Jkx Comics and local Madison artists
- Incorporated the comic into outreach activities to improve participant engagement and learning

Wisconsin Idea STEM Fellow, University of Wisconsin-Madison Jun 2018 – Present

- Learned interactive teaching strategies and outreach evaluation techniques
- Developed an interactive hibernation microbiology outreach activity for elementary school-aged children
- Worked with fellows-in-training to develop and improve their outreach activities
- Participated in 10 outreach events (Saturday Science, Wisconsin Science Festival, Science Expeditions)

Social Media Manager, Microbiology Doctoral Training Program, UW-Madison Nov 2017 - Present

- Managed Microbiology Doctoral Training Program (MDTP) twitter handle (@UWMadisonMDTP) and facebook page
- Increased public recognition by highlight news and work from MDTP trainers and students