# Edna Chiang

## EDUCATION

**University of Wisconsin-Madison** — Madison, WI
- 4th year Microbiology PhD Candidate — *Sep 2016 - Present*
- PhD minors in Life Sciences Communication and Biotechnology — GPA: 4.00/4.00
- Advisors: Dr. Garret Suen and Dr. Hannah Carey

**University of Michigan** — Ann Arbor, MI
- Bachelor of Science with High Distinction — *Graduation: Apr 30, 2015*
- Majors: Microbiology (High Honors) and Spanish — GPA: 3.85/4.00
    - Honors Thesis: Ecology of Verrucomicrobia in a Freshwater Estuary
- Undergraduate research with Dr. Vincent Denef in freshwater microbial ecology

## SELECTED AWARDS

- NSF Graduate Research Fellowship — *Sep 2018 – Aug 2023*
- NIH Biotechnology Training Program Traineeship — *Jan 2017 – Aug 2019*
- NSF Non-Academic Research Internships for Graduate Students (INTERN) Supplemental Funding — *Jul 2019*

## NOTABLE SCIENCE COMMUNICATION EXPERIENCE

***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

***Science Policy Fellow*, Federation of American Societies for Experimental Biology** — *May 2019 – Aug 2019*
- Worked for the nation's largest biological and biomedical research advocacy group in their Office of Public Affairs on the Legislative Affairs team
- Helped to coordinate a congressional briefing about NSF-funded research addressing the public health concern of antimicrobial resistance
- Attended congressional briefings and hearings; participated in stakeholder meetings for science agencies (e.g. NSF) and professional societies (e.g. ASM, AAAS)
- Wrote articles for the FASEB Washington Update newsletter to inform society members of the latest news in science policy and advocacy

## SCIENTIFIC PUBLICATIONS


Becker S*, **Chiang E***, Platinga A, Carey H, Suen G, Swoap S. (*In Review*) Stevia supplementation does not rescue high fat diet-induced obesity, glucose interolerance, or microbiota changes. *FEMS Microbiol. Ecol.* * co-first author

Schmidt ML, Biddanda, BA, Weinke AD, **Chiang E**, Januska F, Props R, Denef VJ (*In Review*) Microhabitats shape diversity-productivity relationships in freshwater bacterial communities. *FEMS Microbiol. Ecol.*

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, Denef 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.

Denef VJ, Carrick HJ, Cavaletto J, **Chiang E**, Johengen TH, Palladino D, Vanderploeg HA (2017) Lake bacterial assemblage composition is sensitive to biological disturbance caused by an invasive filter feeder. *mSphere* 2:e00189-17. doi:10.1128/mSphere.00189-17.

Denef VJ, Mueller RS, **Chiang E**, Liebig JR, Vanderploeg HA (2016) Chloroflexi CL500 11 populations that predominate deep lake hypolimnion bacterioplankton rely on nitrogen-rich DOM metabolism and C1 compound oxidation. *Appl. Environ. Microbiol.* 82(5):1423-1432. doi:10.1128/AEM.03014-15.

McCarthy A, **Chiang E**, Schmidt ML, Denef VJ (2015) RNA Preservation Agents and Nucleic Acid Extraction Method Bias Perceived Bacterial Community Composition. *PLoS ONE* 10(3):e0121659. doi:10.1371/journal.pone.0121659

## RESEARCH EXPERIENCE

***Graduate Research Assistant,* Dr. Garret Suen and Dr. Hannah Carey,** University of Wisconsin-Madison
- Investigated microbe-host interactions in hibernating mammals 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 Denef,** 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

***Undergraduate Researcher*, Ruthven Museum of Natural History**, University of Michigan *May 2012 – Jul 2012*
- Analyzed mite abundance and distribution on preserved lizard specimens

***Undergraduate Research Opportunity Student*, Dr. Jacinta Beehner**, University of Michigan *Sep 2011 – Apr 2011*
- Compared hormone levels with chest patch sexual swellings in gelada baboons (*Theropithecus gelada*)
- Conducted hormone elutions and assays, analyzed chest patch color using Photoshop

## Hobbies

Belly dancing • Cooking • Winter sports • Netflix • Science twitter