**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 *Jan 2017 – Present*  
 the link between bacterial taxonomy and function  
 - 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