**Edna Chiang**  
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**EDUCATION**

**University of Wisconsin-Madison** *Sep 2016 - Present*  
 - PhD Candidate, Microbiology Doctoral Training Program, Department of Bacteriology GPA: 4.00/4.00  
 - PhD Minors: Life Sciences Communication and Biotechnology  
 - Advisors: Dr. Garret Suen and Dr. Hannah Carey   
**University of Michigan**  *Graduation: Apr 30, 2015*  
 - BS with High Distinction in Microbiology (High Honors) and Spanish GPA: 3.85/4.00 - Honors Thesis: Ecology of Verrucomicrobia in a Freshwater Estuary

**NOTABLE 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*

- American Society of Microbiology Undergraduate Research Fellowship *May 2014 – Dec 2014*- Beckman Scholars Fellowship *May 2014 – Aug 2015*

**SELECTED 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  
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. .

**SELECTED SCIENTIFIC PRESENTATIONS**

Presentation, “The Hibernation Microbiome: Seasonal Shifts in Carbohydrate Metabolism.” Microbiology Doctoral  
 Training Program Student Seminar – Special Recruitment Seminar, Jan 31, 2020, Madison, WI  
Presentation, “Winter is Coming: A Stark Look at the Hibernator Microbiota.” Biotechnology Training Program  
 Seminar, Nov 7, 2018, Madison, WI  
Poster, “The hibernating squirrel microbiome responds to seasonal dietary shifts by altering its functional potential.”  
 17th International Symposium on Microbial Ecology, Aug 12, 2018, Leipzig, Germany.  
Poster, “Ecology of Verrucomicrobia in a Freshwater Estuary.” American Society of Microbiology General  
 Meeting, Jun 2, 2015, New Orleans, LA.

**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 *Jan 2017 – Present*  
 between bacterial taxonomy and function  
 - Worked with an interdisciplinary team to perform 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*  
 - Studied freshwater microbial ecology to understand the role of bacteria in Great Lakes carbon cycling  
 - Optimized fluorescent *in situ* hybridization microscopy protocol, extracted DNA/RNA, prepared samples  
 for amplicon sequencing, created cultures, collected water and sediment sample from the Great Lakes  
 - Applied statistical and bioinformatics techniques to analyze bacterial 16S rRNA data using mother and R

**OUTREACH EXPERIENCE**

*Invited Speaker*, Kettle Moraine Evening with Nature and Science On Tap-Minocqua *Sep and Jan 2019*  
 - Presented two stories about hibernation from the perspective of a hibernating squirrel and its gut microbes  
 - Engaged in informal discussion with local Minocqua, WI residents about implications of hibernation research *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  
 - Designed and implemented an interactive hibernation microbiology outreach activity for elementary  
 school-aged children  
***Designer and Volunteer*, Science Saturday**, University of Wisconsin-Madison *Sep 2017 - Present* - Co-developed and executed outreach activities with the Wisconsin Institute for Discovery and  
 Morgridge Research Institute to teach hibernation physiology and microbe-host interactions

**SCIENCE COMMUNICATION COURSES**

Scientific Writing Writing Science as a Story  
Public Opinion of Life Science Issues Life Sciences Communication Symposium  
Web Design for the Sciences Improve for Scientists  
Empowering people to Break the Prejudice Habit: Creating Inclusion and Overcoming Bias

**SKILLS**

- **Lab Skills:** DNA/RNA extraction, PCR, gel electrophoresis, DNA library preparation, Illumina MiSeq sequencing,  
 fluorescent *in situ* hybridization microscopy, limnology and mammalogy field work and sample collection  
- **Computation:** HTML (intermediate), CSS (intermediate), R(advanced), perl (familiar), python (familiar),  
 bash (familiar), Microsoft Office Suite, Google Drive, mothur, amplicon sequencing analysis,  
 metagenomic analysis- **Languages:** English (fluent), Spanish (fluent), Mandarin Chinese (intermediate)