

Edna Chiang

PhD microbiologist, bioinformatician, and science communicator

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EDUCATION

Microbiology PhD, University of Wisconsin-Madison

2016 - 2022

Microbiology and Spanish BS, University of Michigan-Ann Arbor

2011 - 2015

PROFESSIONAL SUMMARY

- I am a goal-driven PhD microbiologist, bioinformatician, and science communicator with 7 years of research experience, PhD minors in life sciences communication and biotechnology, and extensive training in data analysis and multi-modal communication.
- I am seeking opportunities where I can use my research and communication background in a team setting to help make data-driven decisions and make complex ideas accessible to diverse audiences.

SELECTED PUBLICATIONS

Regan MD, **Chiang E**, Liu Y, Tonelli M, Verdoorn KM, Gugel SR, Suen G, Carey HV, Assadi-Porter FM. (2022) Urea nitrogen recycling via gut symbionts increases in hibernators over the winter fast. *Science*. doi: 10.1126/science.abh295.

Chiang E, DeBlois CL, Carey HV, Suen G. (2022). Characterization of captive and wild 13-lined ground squirrel cecal microbiotas using Illumina-based sequencing. *Animal Microbiome*. doi:10.21203/rs.3.rs-798936/v1.

Becker S*, **Chiang E***, Plantinga A, Carey HV, Suen G, Swoap S. (2020) Effect of stevia on the gut microbiota and glucose tolerance in a murine model of diet-induced obesity. *FEMS Microbiol. Ecol.* doi: 10.1093/femsec/fiaa079.

* co-first author

WORK EXPERIENCE

Graduate Research Assistant, University of Wisconsin-Madison

Aug 2016 - Aug 2022

- Investigated the impact of dramatic nutritional changes on host-microbe interactions in hibernating mammals.
- Simultaneously coordinated 5 research projects and collaborated with a multidisciplinary team to design, plan, and execute experiments using hibernators, resulting in 4 published research papers, one of which was in *Science*.
- Analyzed big multi-omic datasets consisting of NGS-generated microbial DNA sequences and metabolomic data using R and python to perform quality control and statistical tests, and to create visualizations for (non-)scientific audiences.
- Prepared a training dataset for use by a machine learning model to predict microbial pairwise interactions.
- Organized and participated in multiple outreach events that explained research to K-12 students, adults in rural WI, professionals in the WI biohealth industry, and elected officials.

Science Policy Fellow, Federation of American Societies for Experimental Biology

May 2019 - Aug 2019

- Communicated science policy news to multidisciplinary scientists by publishing 9 articles in a newsletter that distilled relevant information from congressional briefings / hearings and from stakeholder meetings for federal science agencies and professional scientific societies.

SKILLS

R, Python, Perl, GitHub, Bash, HTML, CSS, Adobe Photoshop, English, Spanish, and Mandarin.