

Edna Chiang

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EDUCATION

University of Wisconsin-Madison

Madison, WI

- Microbiology Ph.D. Student, Department of Bacteriology

University of Michigan

Ann Arbor, MI

- Bachelor of Science with High Distinction

Graduation: April 30, 2015

- Microbiology High Honors and Spanish

GPA: 3.85/4.00

- Honors Thesis: Ecology of Verrucomicrobia in a Freshwater Estuary

University of Santiago de Compostela

Santiago de Compostela, Spain

- Studied abroad for spring term, participating in a cultural immersion program

SCIENTIFIC PUBLICATIONS

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 (2015) Chloroflexi CL500 11 populations that predominate deep lake hypolimnion bacterioplankton rely on nitrogen-rich DOM metabolism and C1 compound oxidation. *Appl. Environ. Microbiol.* 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

SCIENTIFIC PRESENTATIONS

Poster presentation, "Ecology of freshwater Verrucomicrobia, an abundant yet understudied bacterial phylum," at The Beckman Symposium, Aug 8, 2015, Irvine, CA.

Poster presentation, "Ecology of Verrucomicrobia in a Freshwater Estuary," at the American Society of Microbiology General Meeting, Jun 2, 2015, New Orleans, LA.

Presentation, "RNA Preservation Agents and Nucleic Acid Extraction Method Bias Perceived Bacterial Community Composition," at the University of Michigan Microbial Ecology Working Group, Oct 30, 2014.

RESEARCH EXPERIENCE

Graduate Research Assistant, Suen Lab, University of Wisconsin-Madison

Jan 2017 - Present

- Analyzed microbial metagenomic data using various bioinformatics techniques

Undergraduate Researcher/Lab Technician, Denef Lab, University of Michigan

Sep 2012 – Aug 2016

- Optimized fluorescence microscopy techniques, created cultures, extracted DNA/RNA

- Participated in field sampling on Muskegon Lake and Lake Michigan

- Applied statistical and bioinformatics techniques to analyze 16S rRNA data using Mothur and R

Undergraduate Researcher, Jay Reed, University of Michigan

May 2012 – Jul 2012

- Examined mite distribution on preserved lizards at the Ruthven Museum of Natural History.

Undergraduate Research Opportunity Student, Beehner Lab, University of Michigan

Sep 2011 – Apr 2011

- Studied gelada baboons (*Theropithecus gelada*) by comparing hormonal levels with chest patch swelling

- Conducted hormone elutions and assays, and analyzed chest patch color using Photoshop

SELECTED AWARDS

- NIH Biotechnology Training Program Traineeship *Jan 2017*
- Phi Beta Kappa *Mar 2015*
- Beckman Scholars Award *May 2014 – Aug 2015*
- American Society of Microbiology Undergraduate Research Fellowship *May 2014 – Dec 2014*
- University of Michigan Honors Summer Fellowship *May 2014 – Aug 2014*

LEADERSHIP EXPERIENCE

Biochemistry Study Group Facilitator, Science Learning Center, University of Michigan *Sep 2013 – Apr 2015*

- Created engaging activities to help students enhance their understanding of biochemistry
- Formed strong sense of community to encourage collaborative discussions between students

Editorial Board Member, University of Michigan Undergraduate Research Journal *Sep 2012 – Apr 2015*

- Assisted students in improving writing submissions for publication
- Coordinated meetings with corporate sponsors and university departments to obtain journal funding
- Performed outreach by conducting presentations to inform undergraduates about research opportunities

Co-President, Arabian Dance Ensemble, University of Michigan *Sep 2011 – Apr 2015*

- Instructed beginner belly dance class and created choreography to teach students
- Oversaw usage of group funds, coordinated costumes purchases, and organized performances.

VOLUNTEER EXPERIENCE

Spanish Translator, Translate-a-thon, University of Michigan *Oct 2014*

- Translated multiple documents from English to Spanish for non-profit organizations

Worker and Interpreter, Jatun Sacha, Galapagos Islands *Jul 2013 – Aug 2013*

- Participated in environmental conservation by removing invasive species, cleaning tortoise nest sites, and working with local farmers to develop sustainable farming practices
- Facilitated communication between volunteers and staff by interpreting English and Spanish