

# ANNA “ANNIE” SHOEMAKER

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Bozeman, MT

## EDUCATION

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### Montana State University

Ph.D. student in Earth Sciences: Ecology and Environmental Sciences

Expected  
August 2025

### University of Washington

B.S. in Microbiology and Applied Physics  
Minored in Applied Math

June 2020

## HONORS AND AWARDS

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Dean's List (Winter, Spring)

2020

Mary Gates Research Scholarship

2019

## PROFESSIONAL EXPERIENCE

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**The Skidmore Lab**, Montana State University, Bozeman, MT

2021 to present

**Ph.D. Student**, Mark Skidmore, Ph.D.

- Currently working to characterize iron reduction within glacial sediments.

**Process Development**, Seagen (Seattle Genetics), Seattle, WA

2020 to 2021

**Research Associate I**, Matthew Leith

- Worked on perfusion cell culture using CHO cells for the purpose of developing monoclonal antibody-based therapies for the treatment of cancer.

**UW Virology Division**, University of Washington, Seattle, WA

2020

**Clinical Lab Technician I**, Angela Yu

- Worked to aid in the COVID-19 effort in a BSL-2 lab. Primarily processed and tracking samples.

**The Deming Lab**, University of Washington, Seattle, WA

2018 to 2020

**Undergraduate Research Assistant**, Jody Deming, Ph.D.

- Isolated strains from samples collected in cryopegs collected in Utqiagvik, AK. I also worked to characterize the effects of different salinities and temperatures of a *Psychrobacter* isolate.
- Worked on a project studying the effects of different salinities and temperatures on several strains.

- Generated growth curve data for bacterial isolates in culture with psychrophilic diatoms and some temperature characterization of these isolates.

**The Levesque Lab**, University of Washington, Seattle, WA 2020

**Undergraduate Research Assistant**, Emily Levesque, Ph.D.

- Worked on the classification of variable objects of the Andromeda Galaxy (M31) detected by the Zwicky Transient Facility and through the Global Relay of Observatories Watching Transients Happen (GROWTH) database.

**The Ong Lab**, University of Washington, Seattle, WA 2016 to 2018

**Undergraduate Research Assistant**, Shao-En Ong, Ph.D.

- Assisted on various research projects, where mass-spectrometry and other proteomics approaches are used to study protein-protein interactions and the regulation of cellular processes like growth and proliferation.
- Became practiced with chemical labeling and molecular biology procedures such as cloning, western blotting, SILAC, and co-immunoprecipitation.

## PUBLICATIONS

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### *Journal Papers Published*

Golkowski, M & Lau, H-T, Chan, M, Kenerson, H, Vidadala, V, **Shoemaker, A**, Maly, D, Yeung, R, Gujral, T, Ong, S-E. (2020). Pharmacoproteomics Identifies Kinase Pathways that Drive the Epithelial-Mesenchymal Transition and Drug Resistance in Hepatocellular Carcinoma. *Cell Systems*. 11, 2, 196-207, doi:10.1016/j.cels.2020.07.006.

Golkowski, M, Vidadala, V, Lau, H-T, **Shoemaker, A**, Shimizu, M, Beavo, J, Maly, D, Ong, S-E. (2020). Kinobead/LC-MS Phosphokinome Profiling Enables Rapid Analyses of Kinase-Dependent Cell Signaling Networks. *Journal of Proteome Research*. (2020). 19, 3, 1235-147 doi:10.1021/acs.jproteome.9b00742.

## TEACHING EXPERIENCE

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**Teaching Assistant** Montana State University, Bozeman, MT 2021 to 2022

**Earth System Sciences Earth 101**

## PRESENTATIONS

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**Oral Presentation**, “Elevated Salinity Effects on Growth Yield of Psychrophilic Bacteria,” Undergraduate Research Symposium, May 18<sup>th</sup>, 2020.

**Poster Presentation**, “Growth of Sea-Ice Bacteria at Different Salinities and Temperatures,” Undergraduate Research Symposium, May 17<sup>th</sup>, 2019.

**Oral Presentation**, “Functional Interaction of Cyclic Adenosine Monophosphate (cAMP) and Hippo Signaling in Tumor Suppression and Tissue Homeostasis,” Undergraduate Research Symposium, May 18<sup>th</sup>, 2018.

## SKILLS

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**Wet Lab:** Anaerobic cell culturing; western blotting; cloning; mammal cell culture; bacterial cell culture and isolation; primer design; PCR; autoclaving biohazard; making agar plates, media and solutions

**Programming:** Python, Pandas, Numpy, MatLab, Linux, Java, HTML

**Applications:** Microsoft Suite (Word, Excel, Powerpoint, etc.), ApE – A plasmid Editor

## COMMUNITY SERVICE

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**University of Washington: Society of Physics Students**

Treasurer, Seattle, WA, 9/2019 – 6/2020

**University of Washington: Planetarium and Astrobiology with the Mobile Planetarium**

Planetarium Presenter, Seattle, WA, 11/2016 – 6/2020

**Two Cranes Aikido**

Assistant Youth Instructor, Seattle, WA, 9/2015 – 6/2019

## REFERENCES

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**Dr. Mark Skidmore**, Associate Professor

Montana State University

Department of Earth Sciences

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