

Zeqi (Chelsea) Wang

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EDUCATION

University of Washington - Seattle

2021 - 2024

- Bachelor of Science with Honors in Biochemistry
- Minor: Chemistry
- Cumulative GPA: **3.84** / 4.0

RESEARCH EXPERIENCE

Lab Technician / Post-baccalaureate Scholar
Campbell Lab, Fred Hutch Cancer Center, Seattle, WA

Aug. 2025 – Present

PI: Melody Campbell Mentor: Jeremy Hollis

- **Project:** Investigation of the structure of integrin $\alpha\text{M}\beta 2$ using cryo-EM to elucidate how it recognizes diverse host- and pathogen-derived ligands, revealing structural principles of immune recognition and microbial evasion

Lab Technician / Post-baccalaureate Scholar
Malik Lab, Fred Hutch Cancer Center, Seattle, WA

July 2024 – Aug. 2025

PI: Harmit S. Malik Mentor: Yu-Ying (Phoebe) Hsieh

- **Project 1:** Activation of PhoPQ Pathway Drives Mg^{2+} -Dependent Colistin Resistance in *Pseudomonas aeruginosa*
- **Project 2:** Evolutionary Analysis of Mg^{2+} Transporters to Elucidate Protein Functional Diversity

Undergraduate Research Assistant
Kollman Lab, Department of Biochemistry, University of Washington, Seattle, WA

June 2022 – May 2024

PI: Justin Kollman Mentor: Richard Muniz

- **Project:** Structural analysis of filament formation in *Pseudomonas aeruginosa* glutamine synthetase (GS)

PUBLICATION

- Hsieh, Y.-Y. P., O'Keefe, I. P., **Wang, Z.**, Sun, W., Yang, H., Vu, L. M., Ernst, R. K., Dandekar, A. A., & Malik, H. S. (2024). Magnesium depletion unleashes two unusual modes of colistin resistance with different fitness costs. *bioRxiv*. <https://doi.org/10.1101/2024.10.15.618514> **In revision**
- Hollis JA, **Wang Z**, Werther R, Kemp A, Malik HS, Campbell MG. Diverging evolutionary trajectories of a cell surface receptor family. **In preparation**

AWARDS & HONORS

Departmental Honors

June 2024

- Honors Thesis: Filament Assembly of *Pseudomonas aeruginosa* Glutamine Synthetase (GS)

Distinguished Achievement in Biochemistry Research

Apr. 2024

- University of Washington, Department of Chemistry

Mary Gates Research Scholarship

Mar. 2023

- University of Washington

Dean's List

2022 - 2024

- University of Washington

PRESENTATIONS

2025 Basic Sciences Division Retreat Poster Session, WA

Sept. 2025

- Poster Title: Activation of PhoPQ Pathway Drives Mg^{2+} -Dependent Colistin Resistance in *Pseudomonas aeruginosa*

Gordon Research Conference: Molecular Mechanisms in Evolution, MA

June 2025

- Poster Title: Activation of PhoPQ Pathway Drives Mg^{2+} -Dependent Colistin Resistance in *Pseudomonas aeruginosa*

2025 Post-baccalaureate Scholar Symposium, WA

June 2025

- Poster Title: Activation of PhoPQ Pathway Drives Mg^{2+} -Dependent Colistin Resistance in *Pseudomonas aeruginosa*

Research in Progress, Post-baccalaureate Scholar Meeting, WA

Apr. 2025

- Talk Title: Fungal-Bacterial Interactions Drive the Evolution of Antibiotic Resistance

EVO-WIBO, WA

Apr. 2025

- Poster Title: Activation of PhoPQ Pathway Drives Mg^{2+} -Dependent Colistin Resistance in *Pseudomonas aeruginosa*

Undergraduate Research Symposium 2024, WA

May 2024

- Poster Title: Filament Assembly of *Pseudomonas aeruginosa* Glutamine Synthetase (GS)

47th West Coast Biological Science Undergraduate Research Conference, CA

Apr. 2024

- Poster Title: Filament Assembly of *Pseudomonas aeruginosa* Glutamine Synthetase (GS)

Undergraduate Research Symposium 2023, WA

May 2023

- Poster Title: Filament Assembly of Prokaryotic Glutamine Synthetase (GS)

SKILLS

- Cloning; Gel Electrophoresis; Western Blot; Bacterial Culture (Yeast, *E. coli*, *P. aeruginosa*); qPCR
- Protein Purification (Ni-NTA, Size-Exclusion Chromatography); Bio-Layer Interferometry (BLI)
- Mammalian Cell Culture; Flow Cytometry; Deep Mutational Scanning
- Cryo-EM Sample Preparation; Cryo-EM Data Processing

ACTIVITIES

Treasurer, Karate Club

Jan. – July 2023

- Role: Managed club finances, budgeting, and expense tracking to support training and events

Biochemistry Undergraduate Reading Program, WA

Jan. – Mar. 2023

- Role: Weekly meeting with graduate student in biochemistry department to discuss scientific papers

Photographer (Amateur)

Since July 2019

- Role: Portrait and landscape photography; experienced in editing with Adobe Lightroom

African Savannah Conservation Project in Kenya

July 2019

- Role: Assisted the research staff with the population survey on Rothschild's Giraffe with remote camera trapping survey methods