Amaya C. Simoni-Walters *(she/her)*
Native American/Alaskan Native - Yupik and Athabascan
Biological Sciences Master's Student at New Mexico State University
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EDUCATION

New Mexico State University (NMSU) *Aug 2025 – present*
MS in Biological Sciences; Advised by Kathy Hanley, Ph.D. *Las Cruces, NM*
Emphasis in Ecological, Behavioral, and Evolutionary Biology

Saint Mary's College of California (SMC) *Dec 2024*
BS in Biology; *GPA 3.93*; Summa Cum Laude *Moraga, CA*

University of Florida (UF) *Dec 2021*
Credits Earned 21; *GPA 3.9* *Gainesville, FL*

Lakeside School *June 2021*
High School Diploma; *GPA 3.92 / SAT 99th%* *Shoreline, WA*

RESEARCH EXPERIENCE

National Cancer Institute, National Institutes of Health (NIH) *January – May 2025*
Research Scientist (Volunteer Role); Advised by Susan Gottesman, Ph.D. *Bethesda, MD*

- *Study Topic*: Nickel sensitivity of HqbA
- *Project Goals*: Search for small non-coding RNAs that regulate translation and mRNA stability in *E. coli*.
- *Responsibilities*: Worked 40 hours per week designing and constructing plasmids containing single-point mutations in *hfq* and *hqbA* to identify critical amino acid residues involved in nickel resistance. Transformed these plasmids into *E.* coli, cultured mutant strains, and used TECAN plate reader assays to monitor growth in nickel-supplemented media. OD_{600} analysis revealed differential growth patterns linked to specific mutations, suggesting key structural roles in bacterial stress response. Future steps will aim to determine the underlying mechanisms of this sensitivity.
- *Outcome*: Preparing a paper to be published
- *Acquired Skills*: GeneJET Plasmid Mini Prep, TECAN Spark 10M microplate reader sample preparation and data analysis, plate streaking, protein purification, plasmid construction and design, QuikChange Lightning site-directed mutagenesis, standard and deletion PCR, M9 and MOPS minimal media preparation, liquid bacterial culture inoculation, TSS transformation, NanoDrop, and pipetting

National Cancer Institute, National Institutes of Health (NIH) *May – July 2024*
Summer Research Intern; Advised by Susan Gottesman, Ph.D. *Bethesda, MD*

- *Study Topic*: Finding regulators of small RNA
- *Project Goals*: Search for small non-coding RNAs that regulate translation and mRNA stability in *E. coli*.
- *Responsibilities*: Worked 40 hours weekly using a fluorescent screen of over 23,000 colonies and a library of chromosomal segments to identify 12 positive candidates mapped to 3 genomic regions. In these regions, it was determined through manipulated gene expression experiments that the hupA and ssrS genes were responsible for the observed fluorescence. Future steps would aim to determine the underlying mechanisms of this regulation.
- *Outcome*: Presented these findings during the NIH Summer Student Seminar Series
- *Acquired Skills*: Electroporation, GeneJET Plasmid Mini Prep, Bio-Rad ChemiDoc MP imaging, TECAN Spark 10M microplate reader sample preparation and data analysis, plate streaking, liquid bacterial culture inoculation, measuring OD_{600} with a spectrophotometer, Fluorescence-Based Genomic Library Screening, Western blotting, TSS transformation, NanoDrop, and pipetting

Departments of Biology & Chemistry, SMC *February 2023 - 2024*
Undergraduate Research Assistant; Advised by Karen M. Ruff, Ph.D. *Moraga, CA*

- *Study Topic*: Investigating an atypical tandem glycine riboswitch
- *Project Goals*: Study the binding affinity of an atypical glycine riboswitch binding site from *Shewanella oneidensis*
- *Responsibilities*: Worked 10 hours weekly conducting mutagenesis and binding assays to reveal that the atypical site binds glycine with similar affinity to the typical binding site, expanding the known consensus sequence for glycine riboswitch families.
- *Outcome*: Presented these findings in poster form at the Bay Area RNA Club research conference and SMC Honors Research Symposium as well as wrote scientific reports at the end of each semester.
- *Acquired Skills*: Primer design, PCR Quik Change, PAGE and agarose gel electrophoresis running and imaging, sterile culture work, QIAprep Spin Maxi- and Miniprep, EcoRI digestion, T7 RNA Polymerase transcription, Monarch Cleanup, Buffer Exchange, NanoDrop, and pipetting

HONORS AND AWARDS

Awards

Love of Learning Award	*Research grant for post-bac professional development*	*Phi Kappa Phi, 2025*
De La Salle Award	*The highest honor at SMC. The student in the senior class holding the highest record for scholarship and general excellence.*	*SMC, 2024*
Arthur S. Campbell Award	*A graduating senior with an outstanding scholastic record in the School of Science.*	*SMC, 2024*
Valedictorian Nominee	*A student who embodies the essence of the graduating class through distinguished academic achievement, leadership, and meaningful involvement in the SMC community.*	*SMC, 2024*
George Robert Milliken Award Nominee	*Recognizes a graduating senior distinguished for unselfish devotion to student affairs.*	*SMC, 2024*
Carlos Freitas Award Nominee	*Awarded to a graduating senior with an outstanding scholastic record as a Biology major.*	*SMC, 2024*
Pioneer Award	*Research grant for promising scholars*	*Phi Kappa Phi, 2024*
Spectrum Award *published*	*For exceptional undergraduate writing*	*SMC, 2024*
Spectrum Award *finalist*		*SMC, 2024*
Engagement Award	*Earned the highest yearly points*	*SMC Honors Program, 2024*
First Place Reader	*Summer reading challenge (29 books)*	*SMC, 2024*
President's Scholar-Athlete	*For student-athletes with >3.25 GPA*	*SMC, 2023-2024*
Dean's Honors List	*For students with >3.0 GPA*	*SMC, 2022-2024*
National Recognition Program	*For high-performing, underrepresented students*	*College Board, 2021*

Scholarships/Fellowships

Ecology and Evolutionary Biology (EEB) Scholars Program	*One of twelve students selected from a competitive pool of applicants to attend an on-campus EEB graduate school prep weekend*	*Princeton University, 2024*
Consider Cornell: Experience	*Selected from a competitive pool of applicants to attend an on-campus graduate school prep weekend*	*Cornell University, 2024*

Summer Internship Program	*Selected from a competitive pool of applicants for an intensive research experience*	*NIH, 2024*
BIG HART Program Fellow	*For students committed to building diversity and generating HIV/AIDS science*	*University of Washington, 2023*
Presidential Scholarship	*Merit-based, renewed yearly until graduation*	*SMC, 2022-2024*
Athletic Grant-in-Aid Scholarship	*Renewed yearly until graduation*	*SMC, 2022-2024*
Athletic Grant-in-Aid Scholarship	*Renewed yearly until graduation*	*UF, 2021*

Honors Societies

Honors Program		*SMC, 2022-2024*
Phi Kappa Phi	*inducted in spring of sophomore year*	*SMC Chapter, 2023*
Freshman Honors Program		*UF, 2021*

PUBLICATIONS AND PRESENTATIONS

Simoni-Walters, A. (2024). Qwe'lhol'mechen: Our relatives who live under the sea. In C. Ourada and O. Pareja (Eds.), *The Undergraduate Spectrum* (pp. 46-49). Oakland, CA: Center for Writing Across the Curriculum and Collegiate Seminar Program.

Simoni-Walters, A., Luo, X., and Gottesman, S. (2024, December). Finding regulators of sRNA signaling via a genomic screen in *E. coli*. Poster presentation at School of Science Fall Poster Session. SMC, Moraga, CA.

Simoni-Walters, A., Luo, X., and Gottesman, S. (2024, October). Finding regulators of sRNA signaling via a genomic screen in *E. coli*. Poster presentation at Ecology and Evolutionary Biology Scholars Program. Princeton University, Princeton, NJ.

Simoni-Walters, A., Luo, X., and Gottesman, S. (2024, July). Finding regulators of sRNA signaling via a genomic screen in *E. coli*. Presentation at National Institutes of Health (NIH) Summer Student Seminar Series, Bethesda, MD.

Simoni-Walters, A., Leonard, J., and Ruff, K. (2024, May). Atypical glycine riboswitch from *S. oneidensis* binds two molecules of glycine as tightly as typical tandem riboswitches. Poster presentation at SMC Honors Conference, Moraga, CA.

Simoni-Walters, A., De Souza, J., and Coyle, J. (2024, May). Fruticose lichen exhibits faster mean evaporation rates than foliose lichen. Poster presentation at SMC Honors Conference, Moraga, CA.

Simoni-Walters, A., Leonard, J., and Ruff, K. (2023, Dec). Atypical glycine riboswitch from *S. oneidensis* binds two molecules of glycine as tightly as typical tandem riboswitches. Poster presentation at Bay Area RNA Club Research Conference, San Francisco, CA.

STEM WORK EXPERIENCE

Department of Chemistry, SMC *Fall Semester August 2022 – December 2022*

Chemistry Lab Teaching Assistant – (4 hrs/wk) *Moraga, CA*

- Guided 20 students in one section through laboratory assignments and experiments while modeling safe lab procedure. Worked closely with the faculty instructor to address student concerns or questions. Graded student assignments.

STEM Center, SMC *August 2022 - 2024*

Peer Tutor - (6 hrs/wk) *Moraga, CA*

- Tutored biology, chemistry, physics, and math subjects. Developed trust and rapport with students through empathic communication. Motivated students through challenging work. Designed activities that reinforce course concepts.

LEADERSHIP EXPERIENCE

Biology Intern at Legacy Garden *SMC, 2023- 2024*

- As a biology intern, utilized biological knowledge to support the integration of campus-wide sustainable agricultural practices and management of diverse plant species. (4 hrs/wk)

President (2023-2024), VP/Secretary (2022), Native American and Indigenous Student Association *SMC*

- In leadership roles, brought awareness to the voices of Indigenous students on campus through the planning of cultural activities and food sovereignty events. Most importantly, in the fall of 2024, spearheaded an effort to introduce a land acknowledgment and webpage to the SMC campus. (2-4 hrs/wk)

Officer, Academic Honor Council *SMC, 2022 – 2024*

- In tandem with faculty and other students, worked to uphold academic integrity at SMC by reviewing cases of academic misconduct and promoting ethical practices within the student body. (8-10 hrs/semester)

Representative, Student-Athlete Advisory Committee *SMC, 2022*

- Worked to improve the student-athlete experience by listening and advocating for their needs. More specifically, sought to empower female voices and bridge relationships between different women's teams. (4 hrs/month)

Member, Student Life Advisory Board *SMC, 2022*

- Contributed to decisions impacting campus life by communicating students' needs to ensure a supportive environment was being fostered. (2 hrs/semester)

Representative, Athlete Leadership Committee *UF, 2021*

- Organized volunteer opportunities on and off campus for student-athletes. (4 hrs/month)

President, Native American Student Association *Lakeside School, 2020 – 2021*

- Organized events to increase awareness and understanding of Native American culture and issues to create a supportive environment for Indigenous students on campus. (4 hrs/month)

Co-Captain, High School & Premier Club Soccer Teams *2019 – 2021*

- Fostered an inclusive environment where each team member felt valued by empowering my teammates through successes and challenges, communicating effectively with teammates and coaches, and leading with empathy.

COMMUNITY SERVICE

UF Student-Athlete Representative at Food 4Kids Backpack Program of North Florida - *Gainesville, FL* *2021*

- Helped to organize and distribute food supplies to underprivileged children to ensure they had access to meals at school. (2 hrs/semester)

Tutor at Turning Point - *Shoreline, WA* *2021*

- Provided academic support to underprivileged children, focusing on enhancing their appreciation for schoolwork and confidence in their academic abilities. (4 hrs/wk)

Program Assistant at Mary's Place - *Seattle, WA* *2019*

- Supported operations at Mary's Place, a shelter for women and families experiencing homelessness, assisting with administrative tasks and passing out supplies to those in need. (4 hrs/wk)

COLLEGIATE STUDENT-ATHLETE EXPERIENCE

Scholarship Women's Soccer Athlete at UF, SMC, and NMSU *UF 2021, SMC 2022 – 2024, NMSU 2025 - present*

- Balanced a full course schedule and 30+ hours per week of team activities.
- Developed perseverance, effective communication, the ability to receive criticism and learn from it, and a strong work ethic to meet personal and team goals.

ADDITIONAL WORK EXPERIENCE

Trainer/Guest Service Representative at Toca Soccer – Redmond, WA - (20 hrs/wk) *December 2020 – July 2022*
Nanny for Childcare Private Practice – Seattle, WA (20 hrs/wk) *June 2020 – December 2021*
Referee for Washington Youth Soccer – Seattle, WA (4 hrs/wk) *June 2019 – June 2021*

STRENGTHS AND SKILLS

Effective Communicator: Excellent written and verbal communication skills.

Multi-tasker: Good time management, organized, skilled planner.
Leader: Empathetic, inclusive, and direct leadership style and experience.
Culturally Competent: A Native American/Alaskan Native woman active in cultural activities and experienced in working with diverse populations.
Disciplined: Excels at elite sports and challenging academic curriculum while working.
Tech Savvy: Comfortable with computers and proficient in Microsoft Office.
Ethical: Principled and conscientious.

PERSONAL INTERESTS

- Native American cultural ceremonies and activities (e.g., Montana Sundance, Pow Wows)
- Outdoor enthusiast, with experience in backpacking, hiking, and camping in the PNW
- An avid reader of historical fiction
- Lived in New Zealand (Kindergarten) and Hawai'i (7th Grade)
- Enjoys participation in and attendance of the performing arts