

LESLIE A ALAMO TAPIA

laat@uw.edu

Education

- **PhD** 2025-present, University of Washington; Seattle, WA
Molecular and Cellular Biology
Malik Lab
- **B.S.** 2023, University of California, Los Angeles (UCLA); Los Angeles, CA
Major: Biology
College Honors
Departmental Honors
- **A.A.** 2021, Los Angeles Southwest College (LASC); Los Angeles, CA
Majors: Biology, Natural Sciences, and Liberal Studies
Summa Cum Laude

Research Experience

Department of Basic Sciences, Fred Hutchinson Cancer Center, Seattle

- Rotation Graduate Research Student, **Malik Lab**, January 2026- Present
 - Amplified and cloned library for Deep Mutational Scanning (DMS)
 - Electroporated and chemically transformed *E. coli* cells
 - Transfected and induced CRISPR/Cas9 editing in human cells
 - Performed flow cytometry-based competition assays to measure cell proportions
 - Completed phylogenetic analysis using sequence homology to map evolution history of genes

Omeros Corporation, Seattle WA

- Extern, **Protein Chemistry Team**, June 2026- Present
 - Modeling of humanized antibodies for clinical application
 - High-throughput screening and production of engineered protein constructs

Department of Obstetrics & Gynecology, University of Washington, Seattle

- Rotation Graduate Research Student, **Hamazaki Lab**, March 2026-June 2026
 - Designed gRNA library and single-cell probes targeting all transcription factors in the human genome for high-throughput CRISPRi screen
 - Amplified and cloned library for high throughput downstream
 - Produced and infected lentivirus library in stem-cells for organoid induction and phenotyping
 - Induced human gastrulation stem-cell organoid (gastruloid) for single-cell phenotyping

Department of Biochemistry, University of Washington, Seattle

- Rotation Graduate Research Student, **Kwon Lab**, September 2025-December 2025
 - Performed *Drosophila* husbandry and mating
 - Dissected *Drosophila* intestines for immunohistochemistry and confocal microscopy
 - Analyzed stained intestine images using ImageJ

Department of Human Genetics, University of California, Los Angeles

- Laboratory Research Technician, **Kruglyak Lab**, June 2023-August 2025
 - Optimized oligo library amplification, cloning, *E. coli* electroporation, and yeast transformation
 - Built a modular high-throughput CRISPR/Cas9-based genome editing toolkit for yeast
 - Developed highly parallel amplicon and custom TN5 whole genome sequencing protocols
 - Created cell sorter-based mating assay and performed growth phenotype assay for causal variant validation in yeast single-cell eQTL study
- Undergraduate Researcher, URC-Sciences Summer Program and Undergraduate Research Scholars Program (URSP) scholar under Dr. Leonid Kruglyak, October 2021-June 2023

LESLIE A. ALAMO TAPIA

- Engineered wild and laboratory yeast strains for the generation and maintenance of genetically stable cell populations
- Performed whole genome sequencing and growth phenotyping of isolated progeny of yeast crosses at high efficiency
- Validated an engineering technique that facilitates the crossing and production of segregants in yeast at scale

Publications

James Boockook, Noah Alexander, **Leslie Alamo Tapia**, Laura Walter-McNeill, Chetan Munugala, Joshua S Bloom, Leonid Kruglyak (2024) Single-cell eQTL mapping in yeast reveals a tradeoff between growth and reproduction. *eLife* **13**:RP95566 <https://doi.org/10.7554/eLife.95566.1>

Grants and Fellowships

- Cell and Molecular Biology (CMB) Training Program, September 2026- Present
 - T32 GM136534

Honors, Achievements, and Awards

- NSF Graduate Research Fellowship Program (GRFP), Honorable Mention, 2026
- The Achievement Rewards for College Scientists (ARCS) Foundation Scholar Award, 2025-present
- Travel Award, Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS), 2024
- UCLA College Honors, 2023
- UCLA Departmental Honors in Biology, 2023
- Travel Award, ABRCMS, 2022- declined
- UCLA Undergraduate Research Scholars Program (URSP) Scholarship, 2022
- Albert C. Boyer UCLA URC-Sciences Summer Scholarship, 2022
- Rex & Ruth Van Trees UCLA URC-Sciences Summer Scholarship, 2022
- LASC Dean's Honor List, 2018-2021

Conferences and Research Presentations

Title: High-Throughput Screen of Transcription Factors in Human Gastruloids

- UW MCB Spring 2026 Rotation Poster Session, Poster

Title: Fitness Landscape and Evolutionary Origins of the Barrier-to-Autointegration Factor 1 (BAF1)

- UW MCB Winter 2026 Rotation Talks, Oral Presentation

Title: Understanding the signaling mechanisms underlying intestinal epithelial cell shape changes

- UW MCB Fall 2025 Rotation Talks, Oral Presentation

Title: High-Throughput Assessment of the Effects of Genetic Variation in Yeast

- ABRCMS Conference, November 2024, Poster

Title: Mapping the Genetic Basis of Traits in an Extremely Divergent Taiwanese Strain of Yeast

- UCLA Undergraduate Research Week, May 2023, Oral Presentation
- UCLA Undergraduate Research Scholars Program, June 2023, Oral Presentation
- UCLA URC- Sciences Summer Program, August 2022, Oral Presentation

Clinical Experience

Volunteer, Transforming Care at Bedside "TCAB" Program, Cedars-Sinai Medical Center, 2023-2024, 100 hours

- Learned what nurses and other healthcare professionals do in their daily work, and experienced how it feels to interact with patients and families at the bedside

Leadership Experience

Treasurer, Club Sampling Club, 2021-2022, UCLA

- Collaborated with other student clubs and organizations for joint events and school activities

Fellow, California Campus Catalyst Fund, 2019-2020

- Developed creative strategies to respond to the needs of large numbers of undocumented students and their families within the community of Los Angeles Southwest College

LESLIE A. ALAMO TAPIA

Teaching Experience

Math Tutor, Los Angeles Community College District, 2020-2022

- Guided students to improve academic performance in subjects Statistics, College Algebra, Trigonometry, Precalculus, and Calculus

Chemistry Tutor, Los Angeles Southwest College, February 2019-June 2019

- Tutored introductory chemistry courses for students requesting additional assistance, increased student understanding of basic chemistry principles for future exams, and assisted students in completing assignments

Work Experience

Work-Study Research Assistant, Kruglyak Lab, May 2022-June 2023

- Managed the training of two new entry-level technicians in the lab
- Prepared and maintained complex yeast and bacteria culture media for various experimental protocols, including selective and differential media for different yeast and bacteria strains
- Utilized laboratory equipment, such as autoclaves, spectrophotometers, microscopes, and incubators, ensuring proper calibration and maintenance

Cashier, Kikka Sushi, May 2022-November 2022

- Resolved customer complaints, provided product information, calculated daily payments, and reconciled the results with total sales

Membership

Fellow, California Campus Catalyst Fund, 2019- 2020

Technical Skills

Basic programming: Omeros- Neurosnap (BioPhi, Boltz2(AlphaFold3), Humatch, EvoEF2, and BindFilter), UniProt Alignment, BioLuminate, and Maestro. **UW-** phylogenetic analysis using sequence homology (BLAST). UW MCB 536 Tools for Computational Biology- Introduction to Linux, R, and Python. Single-cell RNA-seq analysis. UCLA QC Bio Intro to R and Data Visualization - 9 hours, UCLA QC Bio UNIX command line I - 9 hours, Kruglyak Lab Tutorial #1 Heritability and QTL - 10 hours, Kruglyak Lab Tutorial # 2 multiple-regression and modeling non-additive effects - 8 hours, and Kruglyak Lab Tutorial #3, statistical fine-mapping, experimental fine-mapping with CRISPR engineering, count-based models- 8 hours. **Yeast manipulation:** plate and liquid mating, zygote isolation, tetrad picking, high-throughput yeast transformation, electroporation, and plasmid extraction. **Basic molecular biology:** PCR, DNA and RNA extraction, qPCR, RT-PCR, fusion PCR, colony PCR, Gibson and Golden Gate cloning, gel electrophoresis, flow cytometry, Mo-Clo plasmid assembly, restriction enzyme digestion, and DNA gel extractions. **Library preparation:** multi-well DNA extraction, whole-genome library preparation, TN5-based library preparation, amplicon preparation, and operating next-generation sequencing devices (MiSeq, NextSeq, NovaSeq). **E. coli manipulation:** transformation, electroporation, miniprep plasmid extraction, and maxiprep plasmid extraction. **Drosophila melanogaster husbandry:** stock maintenance, mating, intestine dissection, immunohistochemistry, confocal microscopy, and image analysis. **Human tissue culture:** HEK293T and stem-cell culture maintenance, transfection, CRISPR/Cas9 and CRISPRi screening, RNA extraction, immunoblots, flow cytometry, organoid induction, lentivirus preparation, lentivirus infection, and cell imaging.