MICHEL YEHUDI ECHEVERRIA BRICENO

Hayward, CA 94541 | mikeyehudi@gmail.com | 650.863.7977

PROFESSIONAL SUMMARY

Molecular biologist and microbiologist with an M.S. in Molecular Biology and Microbiology and hands-on experience in PCR, molecular cloning, Gibson assembly, plasmid construction, bacterial culture, aseptic technique, sequencing sample preparation, DNA/RNA workflows, and SOP-driven laboratory operations. Experienced in troubleshooting molecular biology workflows, maintaining accurate sample records, optimizing protocols, and working across research and production-style laboratory environments.

EDUCATION

Master of Science in Molecular Biology and Microbiology
San José State University. San José, CA. *Magna Cum Laude – 2026*

Bachelor of Science in Microbiology and Parasitology
Universidad Nacional De Trujillo, La Libertad, Perú – *2010*

Associate of Science in Biology
College Of San Mateo. San Mateo, CA. *Magna Cum Laude – 2022*

Bachelor of Science in Visual Communication
San Francisco State University. San Francisco, CA. *Cum Laude – 2016*

RESEARCH EXPERIENCE

Graduate Researcher
San José State University. San José, CA. *2023 – 2026*
Advisor: Dr. Elizabeth Skovran
Research Title: *Identification of an alternative transport system for rare earth elements (REEs) in Methylobacterium extorquens AM1.*

- Conducted microbiological and molecular biology experiments using bacterial culture systems, aseptic technique, and controlled growth conditions.
- Designed and constructed plasmids using Gibson assembly for gene knockout via allelic exchange.
- Applied CRISPR/Cas9 gene editing to transfer mutated genes into wild-type bacterial strains for functional analysis.

- Constructed plasmids for transcriptional reporter fusion assays and evaluated gene expression under lanthanide-dependent growth conditions.
- Performed transcriptional reporter fusion assays and transcriptomic analysis to assess microbial responses across experimental conditions.
- Maintained organized experimental records, analyzed biological data, interpreted trends, and communicated findings through posters and oral presentations.
- Troubleshot experimental workflows and contributed to protocol development, optimization, and reproducibility.

Undergraduate Researcher
Universidad Nacional De Trujillo. La Libertad, Perú. *2009 – 2010*
Advisor: Dr. Julio Arellano Barragán
Research Title: *Biomass production of Bacillus thuringiensis in medium composed of wastewater from local dairy plant.*
- Isolated and identified Bacillus thuringiensis from agricultural soil samples using microbiological culture and morphological characterization techniques.
- Prepared and evaluated dairy wastewater-based culture media to support bacterial biomass production.
- Conducted colony morphology, microscopic analysis, and protein crystal assessment to characterize bacterial isolates.
- Scaled bacterial biomass production using mini-bioreactors and monitored microbial growth under controlled culture conditions.
- Assessed toxicity of crystal proteins to evaluate biological activity and support strain characterization.

WORK EXPERIENCE

Teaching Associate – General Bacteriology Laboratory
San José State University. San José CA. *2026 – Present*
- Prepared and delivered General Bacteriology laboratory sessions covering aseptic technique, microbial culture, bacterial isolation, water analysis, contamination control, and microbial identification.
- Trained students in proper handling of microorganisms, sterile technique, media preparation, inoculation methods, and interpretation of microbial growth.
- Guided students through water-quality microbiology exercises, including sample handling, bacterial detection concepts, and analysis of microbial contamination.
- Evaluated student laboratory reports, experimental results, and technique, providing constructive feedback to improve accuracy, documentation, and scientific reasoning.
- Reinforced laboratory safety, contamination prevention, proper documentation, and adherence to established laboratory procedures.
- Coordinated with supervising faculty to align laboratory instruction with course objectives and maintain consistency across sections.

Laboratory Technician
Sequetech. Mountain View, CA. *2022 – 2023*

- Performed DNA/RNA quantification, PCR product purification, sequencing preparation, and quality checks for molecular biology workflows.
- Prepared and processed plasmid and PCR product samples using rolling circle amplification and BDX chemistry.
- Operated and maintained laboratory instrumentation, including NX automated liquid handling systems and 3730XL capillary DNA sequencer.
- Followed established laboratory procedures while maintaining accurate sample records, documentation, and data integrity.
- Designed, optimized, and documented protocols for Sanger sequencing workflows to improve reliability and efficiency.
- Troubleshot sample preparation and sequencing workflow issues in collaboration with laboratory staff.

Graphic Designer
Los Altos Town Crier Newspaper. Los Altos, CA. *2020 – 2025.*
Daily Post Newspaper. Palo Alto CA. *2012 – 2020*

- Directed visual communication for print and digital platforms.
- Collaborated with cross-functional teams under strict deadlines.
- Developed transferable skills to science: project management, communication, and data visualization.

LABORATORY SKILLS & TECHNIQUES

Molecular Biology:
PCR, molecular cloning, Gibson assembly, plasmid construction, gene knockout by allelic exchange, conjugation, transformation, CRISPR/Cas9 editing, promoter fusion assays, and mammalian cell culture.

Genomics & Sequencing:
DNA/RNA extraction, DNA/RNA quantification, Sanger sequencing, sequencing sample preparation, transcriptomics, and RNA-seq analysis.

Laboratory Operations and Documentation:
Protocol development and optimization, SOP-style documentation, experimental recordkeeping, data integrity, troubleshooting, equipment operation, laboratory workflow management, and technical report writing.

Microbiology & Wet Lab Techniques: Aseptic technique, bacterial culture, sterile media and reagent preparation, microbial isolation, colony morphology assessment, microbial growth analysis, contamination prevention, and microbiological troubleshooting.

Data Analysis:
Excel-based data organization, basic R and Python for statistical analysis, bioinformatics, visualization, and interpretation of experimental results.

ADDITIONAL SKILLS

Spoken and written Languages:
English and Spanish - *Fluent in both*.

Software Proficiency:
Microsoft Office including Word, Excel and PowerPoint.
Adobe Suite Cloud including InDesign, Photoshop and Illustrator.
Basic knowledge of Python and R.

CERTIFICATIONS

Certificate in Biotechnology. College of San Mateo. *2022*

The Science of Stem Cells. American Museum of Natural History. Online-Coursera. *2022*

Introduction to Biology of Cancer. Johns Hopkins University. Online-Coursera. *2021*