

# SYLVIA GONG

## MASTER'S CANDIDATE

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## Skills

### PRACTICAL SKILLS

Environmental Water Sampling  
Water Quality Testing  
Science Communication  
Curriculum Development  
Statistical Analysis  
Buffer/Reagent Prep  
Zebrafish Embryo Toxicity Test  
Mice, Fly, and, Zebrafish Husbandry  
Dissections/Micro-Manipulations  
DNA/RNA Extractions  
qRT-PCR  
Chromatography Purifications (Size Exclusion and Affinity)  
ArcGIS  
R (Programming Language)  
JMP  
GraphPad Prism  
Microsoft Office  
Wordpress  
Conversational Japanese  
Conversational Chinese

### MEMBERSHIPS

Society of Environmental Toxicology and Chemistry  
Society of Toxicology  
Women in Bio

## Volunteering

Mission Creek Conservation Efforts	2014 to 2016
San Diego Humane Society	2018 to Current
Furry Friends Animal Shelter	2011 to 2013

## Experiences

### Boz Life Science Research and Teaching Institute

Research Associate/Instructor

San Diego, CA

Mar. 2019 to Current

#### Research Topics

- Toxicological and transcriptomic effects of HFPO-DA (GenX) on embryogenesis of *Danio rerio*
- Microbiome effects on biological phosphorous removal during wastewater treatment
- DNA Barcoding and diversity analysis of *A.S. shawii*, *A.S. Goldmaniana*, and *A. Sebastiana* for potential inter-subspecific/interspecific hybridization
- Sexual dimorphism in *D. melanogaster* brain gene expression
- Critically assessing orthodox education system modeling based on undergraduate biology laboratory students' assessment

#### Relevant Experience

- Designed and conducted molecular biology and toxicology assays to answer research questions.
- Prepared manuscripts for publications, grants, scientific and business proposals.
- Analyzed data for research projects and assessed results relative to known literature.
- Presented project data and scientific ideas for general and scientific audiences.
- Established and managed a sustainable *Danio rerio* (zebrafish) system.
- Lead team in the care and execution of zebrafish related projects.
- Communicated between projects at institute to ensure synchronization of project timing, resources, and concepts.
- Developed and taught curriculum in molecular biology for up to 30 high-school students.
- Worked as core team member in administration, development, and discussions necessary to help grow new nonprofit institute.
- Established online presence for institute through graphic and web design.
- Managed inventory for laboratory equipment.

### The Feeney Lab

Intern

The Scripps Research Institute, La Jolla, CA

June 2016 to Nov. 2016

- Conducted molecular biology assays for the study of VD(J) recombination: Antigen Diversification in Immunology.
- Assisted in daily tasks necessary to maintain the lab and maintain mouse colony.

## Activities

### Papers

Goran Bozinovic, Kesten Bozinovic, Zuying Feng, Christine Stewart, Darcy Engelhart, Sylvia Gong, Jeanne Vu, and Miguel Vasquez. "Reevaluate How to Evaluate: Systemic Assessment Biases Affect Students' Confidence in College Upper-Division Biology Laboratory Courses." Submitted for publication.

Gong, Sylvia. "Effects of HFPO-DA (GenX) on embryogenesis of zebrafish (*Danio rerio*)."

### Conferences

Sep 2020. Gong, Sylvia. "Data-Driven, Long-Range Forecasting of Biological Phosphorus Removal (BPR) Stability." Pacific Northwest Clean Water Association Annual Conference and Exhibition, Spokane, WA. Accepted.

### Relevant Coursework

Environmental Health Risk Assessment, Water Quality Investigation, GIS & Public Health, Principles of Toxicology, Epidemiology, Hazardous Waste Management, Environmental Determinants of Human Health, Molecular Basis of Human Disease, Molecular Biology.

## Education

### San Diego State University

MS Environmental Health Sciences 2021

Current

### University of California San Diego

BS Molecular Biology 2018

2014 to 2018