



- Lilly, M., **Amaya-Mejia, W.**, Pavan, L., Peng, C., Crews, A., Tran, N., Sehgal, R.N.M., Swei, A. (2022) *Local community composition drives avian Borrelia burgdorferi infection in tick infestation*. Veterinary Sciences. doi.org/10.3390/vetsci9020055
- Gelinas, K., Ovid, D., **Amaya-Mejia, W.**, Ayala, R., Baek, H., et al. (2022) *Investigating Instructor Talk among Graduate Teaching Assistants in Undergraduate Biology Laboratory Classrooms*. CBE – Life Sciences Education. doi: 10.1187/cbe.21-10-0302
- Oyarbide, U, Shah, A.N, **Amaya-Mejia, W**, Snyderman, M., Kell, M.J., Allende, D., Calo, E., Topczewski, J., Corey, S.J. (2020) *Loss of Sbds in zebrafish leads to neutropenia and pancreas and liver atrophy*. JCI Insight. doi:10.1172/jci.insight.134309.
- Duerr, R., **Amaya-Mejia, W.**, Sobeck, J., Purdin, G., Aquino, J., Sehgal, R., Luevano, I. *Survey of Hemoparasites in Common Murres (Uria Aalge) Undergoing Rehabilitation in California*. February 13, 2020. Portland, OR. Oral Presentation.
- Amaya-Mejia, W.** *Eco-Immunological Response of Avian Hosts to Haemosporidian Infections*. February 8, 2020. Hayward, CA. Oral Presentation.
- Amaya-Mejia, W.**, Pavan, L., Aquino, J., Bruno, G., Grant-Bier, J., Peng, C., Swei, A., Sehgal, R. *Avian Immune Response to Parasitic Infections in a Natural Environment*. February 7, 2020. Redding, CA. Oral Presentation.
- Amaya-Mejia, W.** *Avian Immunological Response to Infection by Haemosporidians*. Northern California Parasitology Meeting; February 2, 2019. Berkeley, CA. Oral Presentation.
- Amaya-Mejia, W.**, Oyarbide, U., Corey, S.J., *Starvation Stress Response in Sbds-null Zebrafish*. Annual Massey Research Retreat; June 8, 2017. Richmond, VA. Poster Presentation.
- Oyarbide U, Kell M, **Amaya-Mejia W**, Topczewski J and Corey S. *Gene Disruption of Zebrafish Sbds Phenocopies Human Schwachman-Diamond Syndrome but Suggests More Global and Lineage Defects*. 58th American Society of Hematology Annual Meeting and Exposition; December 3-6, 2016 San Diego (USA). Oral presentation.

## RESEARCH EXPERIENCE

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### Doctorate Candidate

2020 - Ongoing

UCLA

Research into effects of urbanization on disease ecology and eco-immunology of wild bird populations infected with bloodborne parasites. Study utilizes genomic, molecular, and microscopy techniques to determine infection status, parasitemia levels and corresponding host transcriptome. Investigation will determine the potential evolutionary relationships between hosts and their parasites and presence of conserved immune responses. Research will additionally investigate the effects of racism, as seen through redlining, on avian disease prevalence.

### Master's Student

2018 - 2020

San Francisco State University

Study of bloodborne parasites located within wild birds sampled across the Papua New Guinean archipelago. Analyzed the effects of geographic and biological characteristics on distribution and phylogenetic diversity of haemosporidians. The study provide the first survey within the region.

**Junior Fellow**

2018- 2020

Global Viral

Research fellowship designed to explore the limits of life using next-generation sequencing technology. Investigated the microbial communities' composition of in arid soils taken from Death Valley, CA. Techniques utilized metagenomic and metatranscriptomic approach to explore community composition, determine genetic adaptations to arid environments through genomes and gene expression.

**Research Technician**

2016 - 18

Massey Cancer Center

Developed and performed experiments reviewing impacts of CRISPR-modified *slds* gene and subsequent protein expression. Primarily utilizing PCR techniques to identify developmental changes between mutant and Wild Type larvae. Observed skeletal development using calcein staining, fat accumulation using cryosectioning with oil red O. Conducted tests to understand the impact of l-leucine, DNAJC21, human-*slds* Tol2 injections, p53 and GATA2 knockouts as potential rescues.

**Field Assistant**

Winter 2015

Population Ecology Lab VCU,  
Fall Cankerworm Study

Researched population dynamics of the invasive fall cankerworm in suburban and rural environments using sticky bands to capture migrating females along white oaks in central Virginia. Assisted with tree biodiversity survey and banding of trees prior to breeding season.

**Internship**

2015 - 2016

Insect Ecology and Behavior  
Lab VCU

Undergraduate research assistant studying evolutionary and ecological relation between *M. sexta*, associated parasitoids and hyperparasitoids. Mainly responsible for long-term colony maintenance and rearing, data collection, out-reach events, and lab upkeep.

**AWARDS**

2022

**Pasadena Audubon Society Research Grant, UCLA**

2022

**Lida Scott Brown Quarter Fellowship, UCLA**

2021 and 2022

**Ford Foundation Honorable Mention, UCLA**

2021

**Western Field Ornithology Research Grant, UCLA**

2021 and 2022

**La Kretz Center and Stunt Ranch Research Grant, UCLA**

2020- Present

**Cota-Robles Fellowship, UCLA**

2020

**Graduate Dean Scholarship, UCLA**

2020

**Competitive Edge Program, UCLA**

2019 - 2020

**Genentech Foundation Dissertation Fellowship, SFSU**

2019 - 2020

**Sally Casanova Scholarship, SFSU**

2019

**Outstanding Graduate Teaching Assistant, SFSU**

2018

**Instructionally Related Activities Awards, SFSU**

2018 - 2020

**Boundaries of Life Initiative Scholarship, SFSU**

2018

**Provost Scholar Award, SFSU**

## OUTREACH AND RELATED EXPERIENCES

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**Bruins-In-Genomics (BIG)  
Summer Program Mentor**  
2023  
UCLA

Summer program for two undergraduate students aimed at providing research opportunities in the field of genomics and computational biology. Two research projects included quantifying diversity of avian gut microbiomes and understanding the phylogenetic relationships of haemosporidians of dark-eyed juncos.

**UC-HBCU Initiative  
Mentor**  
2023  
UCLA

Summer research program for two undergraduate students from Historically Black Colleges and Universities designed to provide a novel opportunity to conduct research. Projects included 1) understanding the effects of urbanization on the feeding behavior and diets of dark-eyed juncos and 2) characterizing the transmission of *Chlamydia* between dark-eyed juncos across an urban environment.

**MARC Undergraduate  
Fellowship Mentor**  
2021-Present  
UCLA

Multi-year program to support underrepresented students in STEM pursuing biomedical research projects. I provided guidance for a research project studying the diversity of MHC genes in different populations of dark-eyed juncos in southern California and whether this affects reproductive success.

**Community Engagement -  
HoLA**  
2020 - Present  
UCLA

Collaboration with community partners to develop after-school course for underserved students living in Los Angeles. Students are encouraged to develop interests in native wildlife while engaging in the application of scientific thought. Foundational work focused on the studying the local effects of urbanization.

**Entering Mentoring  
Training Workshop**  
2021  
UCLA

NIH-funded workshop designed to improve mentoring relationships. Modules included aligning expectations, effective communication, diversity, inclusion, and equity considerations, foster independence, professional development, fostering self-efficacy, and establishing a mentorship philosophy plan.

**REU Student Co-Mentor**  
2019  
San Francisco State University

Assisted in mentoring of a Research Experience for Undergraduate student. Supervised and prepared soil DNA extraction to test microbial viability in arid environments. Optimized treatment of PMA, and PCR for genomic library prep.

**Graduate Teaching  
Assistant**  
2018 -2019  
San Francisco State University

Worked as a lab instructor, both independent and as co-instructor for an introductory biology lab course. Provided lectures on molecular and cellular biology prior to facilitating student-led laboratory exercises. Developed unique assessments, and student mentorship.

**Crestwood Elementary  
School Nature Fair**  
2017  
Richmond, VA

Annual nature fair held at Crestwood Elementary school, designed to increase interest in biological topics for K-12 and adults. Primarily used tobacco hornworms to increase interest in entomology and encourage community involvement in science and nature.

**Tutor**  
2015  
Campus Learning Center

Undergraduate tutor for general biology, chemistry, and physics courses. Worked independently and in group settings to facilitate peer taught learning. Developed and lead hour-long sessions to cover a broad range of topics as needed.

**Environmental Educator  
Assistant**  
2012-2014  
Maymont Foundation

Worked to educate the public on biological and ecological concepts. Used educational resources in conjunction with live animal demonstrations to increase public interest and understanding of native fauna. Demonstrations involved handling of reptiles, birds, mammals, and fish.

*Community Idea Stations:*  
**Explore the Outdoors**  
2015 -17

Volunteer opportunity with the Insect Ecology and Behavior Lab, designed to engage community interest in the natural world and biological sciences. Audience primarily consisted of elementary school aged children who were able to interact with insects and learn more about our research.

*Community Idea Stations:*  
**BooFest**  
2015 -2016

Volunteer opportunity with the Insect Ecology and Behavior Lab. Holiday themed, designed to increase interest of children and parents in biological sciences and the natural world. These 8-hour events used to educate children on our research and application of biological topics at home

## **PROFESSIONAL MEMBERSHIPS**

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2021,2024 Chief Administrative Officer, The Association for Multi-Ethnic Bioscientists' Advancement (AMEBA)  
2022-2023 Co-President, The Association for Multi-Ethnic Bioscientists' Advancement (AMEBA)  
2021 Student Member, Western Field Ornithologist (WFO)  
2020-2021 Student Member, American Society of Parasitologist (ASP)  
2018-2020 Student Member, Northern California Parasitology (NCP)  
2020 Student Member, The Wildlife Society – Western Section (TWS WS)