

EDUCATION**Cornell University**, Ithaca, NY**Graduated 2013**

BSc, Biology – Coursework includes Molecular Biology and Genetics, Microbiology and independent research in microRNA biology.

Cornell University, Ithaca, NY**September 2023 – present**

PhD, Genetics Genomics and Development – Frank Pugh

WORK EXPERIENCE**Lab Technician** – Cornell University, Frank Pugh Lab, *Ithaca, NY***July 2021 – July 2023**

- Perform ChIP-exo assay on yeast, mammalian cell lines and human organ samples
- Conduct bioinformatic analysis of sequencing data from ChIP-exo libraries
- Design primers for CRISPR/Cas9 gene editing to tag new genes, transform yeast to create tagged strains, harvest yeast using multiple treatments per strain
- Human tissue culture work including growth, drug treatment and crosslinking of cells, to prepare for ChIP-exo assay
- Assist optimization of organ processing for more efficient chromatin extraction
- Lab maintenance - make buffer and aliquots, inventory and order supplies, train new lab members

Community Science Coordinator – Greater Farallones Association, NOAA, *San Francisco, CA***March 2018 - December 2020**

- Coordinate and deliver [LiMPETS](#) community science programs, coastal monitoring to maintain baseline environmental data
- Survey invertebrates and algae using transects, permanent plots, field guides, maps, compass and GPS data, maintain appropriate scientific collection permits with California Department of Fish and Wildlife and CA State Parks
- Monitor *Haliotis rufescens* and endangered *Haliotis cracherodii* for abalone withering syndrome and *Pisaster ochraceus* for sea star wasting disease
- Provide valuable scientific data to researchers, natural resource managers, and policy makers - LiMPETS data have been used to propose new CA Marine Protected Areas
- Develop and deliver new distance learning curriculum and virtual content related to Ocean Acidification and Climate Change

Environmental Educator – Presidio Trust, NPS, *San Francisco, CA***January 2017- January 2018**

- Deliver inquiry based cultural and environmental education programs to over 4000 K-12 students from across the Bay Area
- Conduct native plant and watershed restoration projects with volunteers and National Park Service Natural Resources management plans
- Monitor The Presidio's coyote population behavior and movement with GPS, radio telemetry and wildlife trail camera placement and maintenance
- Participate in active public outreach regarding the conservation of Mountain Lake, assist with Mountain Lake aquatic invasive species removal and endangered species monitoring

Animal Care Specialist – Berkeley Humane Society, *Berkeley, CA***September 2015 – September 2016**

- Perform daily animal care duties, including feeding, cleaning and administering medical care under veterinary instructions
- Responsible for training new volunteers and interns, act as crew leader and assign daily animal care tasks
- Public face of Berkeley Humane; answer all public questions directed at shelter, handle all monetary transactions, greet and assist potential adopters, counsel new pet owners at adoption center, act as ambassador for animal welfare

Manager – Viva Taqueria, *Ithaca, NY***July 2013 – May 2015**

- Supervise kitchen staff, hire and train new employees to meet the highest standard
- Responsible for kitchen efficiency, employee relations, customer service and fiscal duties

Lab Assistant – Cornell University, Andrew Grimson Lab, *Ithaca, NY***May 2012 – June 2013**

- Optimize a high throughput cell-based screen, allowing the efficiency of a multitude of in context miRNA target sites to be assayed in parallel
- Design, amplify, purify and clone endogenous miRNA inserts, integrate clone plasmid library into human tissue culture cells, maintain bacterial and human tissue cell cultures
- Sort human tissue cells into expression level populations using fluorescence-activated cell sorting (FACS) analysis, identify effective target sites within sorted cell populations using next generation sequencing

RELATED EXPERIENCE**Animal Care Crew** – Marine Mammal Center, *Sausalito, CA***July 2016 - January 2017**

- Provide rehabilitation and medical care to marine mammals stranded off the Central Californian coast until wildlife release
- Administer medicine to wounded and sick patients per veterinary staff instructions, monitor domoic acid patients for signs of seizure, update patient medical charts, assist with lab work

Genetics and Sensitivity to Environment – Cornell University, Eve De Rosa Lab, *Ithaca, NY***October 2014 – July 2015**

- Evaluate individual variation in sensitivity to environmental cues using a reactivity threshold model, and a larger range of neuromodulator variables than those postulated to affect stimulus induced reactivity within neural circuitries
- Program cognitive tasks using PsychoPy, analyze preliminary data in RStudio, collected and purified saliva DNA samples for sequencing from several hundred participants
- Scheduled and trained undergraduate assistants to run participants through cognitive tasks

Biochemical Characterization of Photoproteins – Scripps Institution of Oceanography, *San Diego, CA***June – August 2010**

- Examine the photoprotein produced by the marine worm *Chaetopterus variopedatus* and the physiochemical properties involved in light production.
- Dissect specimens and maintain specimen tanks, extract and measure worm mucus bioluminescence with luminometer.

Human Impacts on Marine Communities – Scripps Institution of Oceanography, *San Diego, CA***June – August 2010**

- Evaluate human impacts on reef-health and sustainability
- Perform a meta-analysis of herbivorous coral reef fish biomass surveys, assist with lab managerial duties including website updates and identifying funding opportunities

Milkweed Herbivore Defense – Cornell University, Anurag Agarwal Lab, *Ithaca, NY***June – August 2008**

- Assess defense allocation patterns of toxic cardenolides in milkweed.
- Survey milkweed plants and assess herbivore damage, counting and collecting herbivores (aphids, *Tetraopes* beetles) and research plot maintenance

CERTIFICATION

OSHA HAZWOPER 24hr Certification
 NYS Driver's License
 First Aid/CPR/AED

COMPUTER

Microsoft Office Suite and Access
 Linux
 Galaxy
 R Studio
 PsychoPy
 ArcGIS
 Wordpress
 Salesforce