Maureen Pittman

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APPOINTMENTS

Graduate Research Assistant – July 2018 to present
University of California San Francisco & Gladstone Institutes
Pollard Lab

Bioinformatics Rotation Student – September 2017 to June 2018
University of California San Francisco
San Francisco, CA

- Hernandez Lab: Investigated non-additive genetic variation in the human genome by analyzing patterns of inheritance in public sequence data.
- Pollard Lab: Characterized the bacterial community composition of mice models of Inflammatory Bowel Disease (IBD). Compared results across different phenotypic models. Used machine learning methods to identify key features of IBD and predict the disease status of mice with inconclusive phenotypic profiles.
- Fujimori Lab: Used phylogenetic tools to predict the evolutionary history of an antibiotic resistance gene and its relationship to bacterial housekeeping genes. Predicted ancestral sequences for use in directed evolution experiments.

Bioinformatics Research Assistant - July 2015 to May 2017
United States Environmental Protection Agency (USEPA)
Durham, NC

- Wrote scripts to access, download, and process public data for use in genomic, transcriptomic, and biological pathway analysis.
- Created databases to store information relating genes, diseases, chemicals, and biological pathways. Wrote scripts to access and organize these data.
- Required programming proficiency in: R, perl, SQL, UNIX systems.

Life Cycle Assessment Research Assistant – January 2014 to January 2015
University of North Carolina at Chapel Hill
Bangkok, Thailand | Chapel Hill, NC

- Analyzed public data from hydraulic fracturing projects to estimate potential environmental and public health impacts of such a project in Thailand.
- Evaluated human health costs, ecosystem damage, and resource depletion relative to product process flows using Life Cycle (ISO 14040) methodology.

EDUCATION

University of California San Francisco – September 2017 – present.
Graduate Program in Biological and Medical Informatics

University of North Carolina at Chapel Hill - August 2011- May 2015.
Bachelor of Science in Environmental Science
Bachelor of Science in Quantitative Biology
Minor in Chemistry
GPA 3.5/4.0

King Mongkutt University of Technology Thonburi – January 2014 – July 2014.
Joint Graduate School of Energy and the Environment
Concentration in Energy and Sustainability
Completed Capstone Research project

PUBLICATIONS

Pittman, M., Edwards, S., Ives, C., Mortensen, H. "AOP-DB: A database resource for the exploration of Adverse Outcome Pathways through integrated association networks." *Toxicology and Applied Pharmacology.* 2018 Mar 15; 343:71-83.

Mortensen, H., **Pittman, M.**, Lalone, C., Edwards, S., Villeneuve, D., Ankley, G. "A Computational Framework for Defining the Taxonomic Applicability of the Adverse Outcome Pathways" *(in prep)*.

PRESENTATIONS

Pittman, M., Fujimori, D. "Analysis of the evolution and diversity of Cfr resistance." Oral presentation to the Fujimori Lab at the University of California San Francisco, May 2018.

Pittman, M., Pollard, K., Lyalina, S. "Characterization of microbial communities in mouse models of IBD." Oral presentation to the Pollard Lab at UCSF and Gladstone Institutes, March 2018.

Pittman, M., Hernandez, R. "Detecting signatures of dominance and selection in the human genome using the Hardy-Weinberg principle." Oral presentation to the Hernandez Lab at the University of California San Francisco, December 2017.

Pittman, M., Lalone, C., Villeneuve, D., Ankley, G., Edwards, S., Mortensen, H. "Defining the Biological Domain of Species Applicability for Adverse Outcome Pathways: The Estrogen Receptor Antagonism and Aromatase Inhibition Case Study." Student prize for poster presentation: Genetic and Environmental Mutagenesis Society Annual Fall Meeting. Durham NC, Oct 2015.

Plunkett, D., **Pittman, M.**, Nelson, S., Corrigan, A, Kamens, R. "Life Cycle Assessment of Potential Hydraulic Fracturing in Thailand." Speaker at UNC Environmental Science Spring Research Symposium. Chapel Hill, NC, April 2015.

Plunkett, D., **Pittman, M.**, Nelson, S., Corrigan, A, Kamens, R. "Environmental Impact Assessment and Recommendations for Potential Hydraulic Fracturing in Thailand" (submitted to *Energy for Sustainable Development*).

AWARDS AND RECOGNITION

Burroughs Wellcome Poster Award, Genetics and Environmental Mutagenesis Society Annual Meeting	October 2015
National Society of Collegiate Scholars member	Aug 2012-May 2015
National Merit Scholarship Award	Aug 2011-May 2015
Brookland-Cayce Education Foundation scholarship	Aug 2011-May 2015

ACTIVITIES

Bioinformatics and Statistics Bootcamp Leader – July 2018 to September 2018

- One of three student leaders selected to design a bioinformatics and statistics module for incoming first year graduate students. Designed the curriculum, chose and recruited speakers, and led discussions about fundamentals in statistics for bioinformaticians.

Computationally Predicted Adverse Outcome Pathway working group – July 2015 to May 2017

- *Adverse Outcome Pathway Discovery and Development*– invited participant in working group to develop means and methods of predicting AOPs (P.I. Stephen Edwards).

UNC Renewable Energy Special Projects Committee member – January 2014 to May 2015

- *Campus-Wide Solar Feasibility* – assisted on a project that evaluated and ranked UNC campus buildings' suitability for solar PV installation.
- *Utility Wars* – organized and publicized a month-long competition between residence halls to reduce energy consumption and waste production.

UNC Institute for the Environment's Thailand Field Site – January 2014 to July 2014

- Completed coursework in Energy/Sustainability and Environmental Risk Assessment.

Volunteer English Instructor at King Mongkutt's University, February 2014 – June 2014

REFERENCES

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