

Dean Wu
Doctoral candidate
Quantitative and Systems Biology
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EDUCATION

Ph.D. Quantitative and Systems Biology. UC Merced. In progress
Advisor: Emily V. Moran
Committee: Carolin Frank (chair), Teamrat A. Ghezzehei, Roger C. Bales
Simulating effects of evolutionary potential on forest dynamics under projected future climates.

A.Sc. Computer Information Systems. Monterey Peninsula College. 2015

M.Sc. Biological Sciences (Molecular and Cellular Biology). California State University Sacramento. 2011

B.Sc. Molecular, Cellular, and Developmental Biology. UC Santa Cruz. 2004

RESEARCH/PROFESSIONAL EXPERIENCE

Researcher/Research Assistant. UC Merced. 2015-present

EV Moran lab:

- *Analyzed greenhouse experiment data for heritable variation in drought tolerance*
- *Assisted in setting up greenhouse trials of ponderosa seedlings*
- *Obtained and analyzed forestry trial data to detect heritable variation in climate response traits*
- *Modified and ran simulations in SORTIE-ND forest simulator under various heritability/climate scenarios*
- *Carried out tree measurements and surveys at Sierra Nevada field sites*
- *Supervised and mentored undergraduate field assistants*

FW Wolf lab:

- *Performed Drosophila forward genetic screen for OTUD6 interactors*
- *Ran DNA gels for OTUD6 expression*
- *Performed Bradford assays and immunoassays for various proteins*
- *Performed fly crosses and carried out dissections*
- *Maintained fly cultures*

Volunteer Researcher. UC Davis Medical Center. 2006-2011

FT Liu lab:

- *Analyzed cancer microarray data to locate putative methylation sites in promoter regions of galectin genes*
- *Performed Bradford assays and immunoassays for various proteins*
- *Embedded, sectioned, and stained H&E and IHC slides*

- *Maintained cultures*

Undergraduate Research Assistant. UC Santa Cruz.

2003-2004

MC Zúñiga lab:

- *Performed ELISA and immunoblots to measure expression of ciliary neurotrophic factor*
- *Prepared lysates and ran DNA gels to check for presence and localization of various transfected genes*
- *Maintained cell and bacterial cultures*
- *Picked up antibodies from Santa Cruz Biotechnology*
- *Prepared classroom experimental setups for student groups in MARC-MBRS summer program*
- *Carried out routine laboratory maintenance*

WORKSHOPS

Next Generation Sequencing Workshop. UC Davis Bioinformatics Core. 2011

RNASeq Workshop. UC Davis Bioinformatics Core. 2011

PUBLICATIONS AND PAPERS

Wu D, Shu M, Moran EV. (in prep) Heritable variation in forest tree environmental response traits.

Wu D, Moran EV. (in prep) Effects of heritability in climate responses on range shifts in Sierra Nevada forest trees.

Wu D, Moran EV. (in prep) Is evolution important for forest dynamics over 80-100 year timescales?

POSTERS AND PRESENTATIONS

Wu D. Heritable variation in ponderosa pine environmental response traits. 2021. UC Merced, QSB Retreat. Merced, CA. Talk.

Wu D, Vannest N, Aubry-Kientz M, Moran E. Effects of evolutionary potential on forest dynamics under projected future climates. 2019. Symposium: Climate Change and the Ecology of Sierra Nevada Forests. Merced, CA. Poster.

Wu D, Navarrete J, Manansala M, Wolf FW. Ovarian tumor deubiquitinases in physiological stress responses. 2018. UC Merced Research Week. Merced, CA. Poster.

Wu D, Navarrete J, Manansala M, Wolf FW. Ovarian tumor deubiquitinases in physiological stress responses. 2017. Neurobiology of Drosophila. Cold Spring Harbor, NY. Poster.

AWARDS AND FELLOWSHIPS

UC Merced QSB Remote Teaching and Research Fellowship (\$250).	2021
UC Merced Graduate Student Research Award in Invertebrate Ubiquitination Pathways (\$4609.06).	2016

TEACHING EXPERIENCE

Teaching Assistant. ESS 002: Sustainability Science. UC Merced.	Summer 2021
Teaching Assistant. BIO 130: Plant Biology. UC Merced.	Spring 2021
Teaching Assistant. BIO 001: Contemporary Biology. UC Merced.	Fall 2020
Teaching Assistant. BIO 141: Evolution. UC Merced.	Fall 2019
Instructor. BIO 001L: Contemporary Biology Lab. UC Merced.	Summer-Fall 2018
Instructor. BIO 002L: Molecular Biology Lab. UC Merced.	Fall 2015, Fall 2017, Spring 2018, Spring 2019
Teaching Assistant. BIO 110: The Cell. UC Merced.	Fall 2016

SERVICE AND OUTREACH

RadioBio UC Merced Podcast campus organization. Content Producer/Social Media Editor.	2018-2019
SACNAS at UC Merced Spring Seminar Series. Invited speaker.	2016

PROFESSIONAL AFFILIATIONS

Ecological Society of America	2021
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OTHER SKILLS

Proficient in English and Mandarin