

Dr. Amanda Vondras

www.amandavondras.com

Newburgh, NY

I'm a scientist that uses -omics tools to understand how biological systems differ, respond to stress, and change during development.

Skills

- Research
- Bioinformatics
- LC-MS
- Writing
- Statistics
- Experimental design

Education

- PhD, Molecular and Cellular Biology, Oregon State University, 2017
- Bachelor of Science, Major: Biological Sciences, Minor: Viticulture and Enology, Cornell University, 2011

Experience

Head of Science, GenRAIT, 2023 - 2024

- Bioinformatics Built and ran analytical pipelines for the company and its customers.
- Customer service Provided support that converted pilots to customers.
- Product development Subject expert that informed feature development and user experience.
- Business development Built valuable relationships with customers and development partners.
- Other hats Streamlined financial operations. Re-designed and wrote content for the company website.

Bioinformatics Scientist, UNC Lineberger Comprehensive Cancer Center, 2022 – 2023

- Research Analyzed EPIC methylation array data to define novel prognostic variables affecting the survival of stage II and III melanoma patients.
- Communication Presented results to an interdisciplinary team of scientists and physicians.

Postdoctoral Researcher, University of California Davis Robert Mondavi Institute, 2017 – 2022

- Research Published original research. Used -omics tools to study plant pathology and genetic diversity.
- Teaching Mentored undergraduate students and taught essential dry and wet-lab techniques and analyses.



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Doctoral Researcher, Oregon State University, 2011 – 2017

- Research Published original research. Used RNA-seq, small RNA sequencing, and LC-MS to study uneven fruit development and plant-virus interactions.
- Teaching Mentored undergraduate students and taught five academic terms of introductory Biology.

Undergraduate Researcher, Cornell University, 2009 – 2011

- Research Acquired funding to study the function of a carotenoid-cleaving enzyme. Cloned and overexpressed VvCCD4 in *E. coli*, then assayed for enzymatic activity.
- Writing Was acknowledged for a review of literature describing the basis of Riesling aroma.
- Training Administered a sensory study of the impact of viticultural techniques on consumer wine valuation. Assisted the study of hormone transport in tomato at the Boyce Thompson Institute for Plant Research, doing sampling, nucleic acid extractions, PCR, plant tissue culture, and media preparation. Designed and carried out a short study of acacia-ant mutualism at the Mpala Research Centre in Kenya.

Awards

- OSU Molecular and Cellular Biology Program 2016 Collaboration Catalyzer Award, Granted for “Characterization of grapevine leafroll-associated virus 3 small interfering RNAs”.
- Dextra Undergraduate Research Endowment Fund 2011, Granted for “The functional characterization of the VvCCD4 enzyme”.

Research highlights

- K Dorsey... AM Vondras *et al.* DNA Methylation Classes of Primary Melanomas and their Clinical and Prognostic Significance in the InterMEL Study. 2024. *Under review*
- AM Vondras *et al.* Rootstock influences the effect of grapevine leafroll-associated viruses on berry development and metabolism via abscisic acid signalling. 2021. *Molecular Plant Pathology*
- AM Vondras *et al.* The genomic diversification of grapevine clones. 2019. *BMC Genomics*

