

CONTACT INFORMATION

The Biodesign Institute
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EDUCATION

Ph.D. Molecular and Cellular Biology Arizona State University Exp. 2016
Advisor: Reed Cartwright
B.S. Bioinformatics and Genomics Arizona State University 2010
magna cum laude

PUBLICATIONS

Furstenau, TN, and RA Cartwright (2015). The effect of the dispersal kernel on isolation-by-distance in a continuous population. Manuscript submitted for publication.
<http://arxiv.org/abs/1501.01085>

Pizzio GA, Paez-Valencia J, Khadilkar AS, Regmi K, Patron-Soberano A, Zhang S, Sanchez-Lares J, **Furstenau T**, Li J, Sanchez-Gomez C, Valencia-Mayoral P, Yadav UP, Ayre BG and RA Gaxiola (2015). *Arabidopsis* proton-pumping pyrophosphatase *AVP1* expresses strongly in phloem where it is required for PPi metabolism and photosynthate partitioning. *Plant Physiology*. Advance online publication. doi:10.1104/pp.114.254342

PRESENTATIONS**Talks**

- 2015 *Bayesian estimation of neighborhood size using composite marginal likelihoods*
Society for Molecular Biology and Evolution · Vienna, Austria
- 2014 *Evolution of Self-Incompatibility: Investigating the role of self-incompatibility systems in the prevention of biparental inbreeding.*
Molecular and Cellular Biology Colloquium · The Biodesign Institute
- 2013 *Evolution of Self-Incompatibility: Investigating the role of self-incompatibility systems in the prevention of biparental inbreeding*
Molecular and Cellular Biology Colloquium · Arizona State University
- 2012 *Is the H⁺-pyrophosphatase involved in the regulation of sucrose transport in plants?*
Molecular and Cellular Biology Colloquium · Arizona State University

Posters and Abstracts

- 2014 *The effect of the dispersal distribution on isolation-by-distance in a continuous population*
Society for the Study of Evolution · Raleigh, NC
- 2014 *Characterization of Transgenic Arabidopsis thaliana overexpressing AVP1 and PLAFP*
Undergraduate Research Poster Symposium · Arizona State University · Tempe, AZ
Presented by Sean Wilson (undergraduate mentee)
- 2012 *H⁺-PPase AVP1 is necessary for phloem development in Arabidopsis thaliana*
Molecular and Cellular Biology Graduate Student Retreat · Tempe, AZ
- 2012 *H⁺-PPase AVP1 is necessary for phloem development in Arabidopsis thaliana*
American Society of Plant Biologists · Austin, TX

RESEARCH EXPERIENCE

- 2013-Present Graduate Student with Reed Cartwright
Center for Human and Comparative Genomics
The Biodesign Institute
Arizona State University · Tempe, AZ
- 2010-2013 Research Assistant with Roberto Gaxiola
School of Life Science
Arizona State University · Tempe, AZ
- 2009-2010 Undergraduate Student Researcher with Lei Lei
School of Life Science
Arizona State University · Tempe, AZ

TEACHING EXPERIENCE**Arizona State University****Courses:**

2014	General Genetics	Head TA
2014	Introduction to Computational Molecular Biology	Innovative TA
2013	Concepts in Plant Biology iCourse	Instructor
2011-2013	General Genetics	Teaching Associate
2011	General Biology I & 2 Laboratory	Teaching Associate
2010	Genetic Engineering and Society Laboratory	Teaching Associate

Undergraduate Mentorship:

- 2011-2013 Honors Thesis Mentor · Sean Wilson
Wilson S, Furstenau T, and R Gaxiola. Characterization of Transgenic *Arabidopsis thaliana* Overexpressing a Type I H⁺ Pyrophosphatase and the Phloem Lipid-Associated Family Protein. <http://hdl.handle.net/2286/R.I.23607>

SERVICE

2010-present Ask-A-Biologist Volunteer Correspondent
2011-2013 Green Labs Initiative Coordinator and Promoter
2012-2013 Phosphorus Sustainability Research Coordination Network Core Participant
2011-2012 Obama Scholars Mentor

SOCIETY MEMBERSHIPS

Society for the Study of Evolution
Society for Molecular Biology and Evolution
Graduate Integrative Society for Environmental Interdisciplinary Research
Central Arizona Chapter of the Association for Women in Science

PROFESSIONAL DEVELOPMENT

2013 Next Generation Population Genomics for Non-model Taxa Workshop
American Genetics Association · Cornell University · Ithica, NY
2011 Univector Plasmid-Fusion System training with Kendal Hirschi
Childrens Nutritional Research Center · Baylor College of Medicine · Houston, TX

PROGRAMMING LANGUAGES

C++, PYTHON, R, BASH, \LaTeX , HTML/CSS, OPENBUGS, MATHEMATICA