

**CONTACT INFORMATION**

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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* **167**:1541-1553. 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
- 2015 *Bayesian estimation of neighborhood size using composite marginal likelihoods*  
Molecular and Cellular Biology Colloquium · The Biodesign Institute
- 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<sup>+</sup>-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<sup>+</sup>-PPase AVP1 is necessary for phloem development in Arabidopsis thaliana*  
Molecular and Cellular Biology Graduate Student Retreat · Tempe, AZ
- 2012 *H<sup>+</sup>-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         |
| 2011-2015 | 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<sup>+</sup> Pyrophosphatase and the Phloem Lipid-Associated Family Protein. <http://hdl.handle.net/2286/R.I.23607>

**AWARDS**

- 2015 ASU Graduate Education Travel Award
- 2015 ASU School of Life Sciences Travel Award

**SERVICE AND OUTREACH**

2015            Molecular and Cellular Biology and Microbiology Retreat Poster Judge  
2015            Software Carpentry Workshop Helper  
2015            Night of the Open Door Volunteer  
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, L<sup>A</sup>T<sub>E</sub>X, HTML/CSS, OPENBUGS, MATHEMATICA