

# Wade R. Roberts

## Curriculum Vitae

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Address: Department of Biological Sciences  
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### Education

2012 – 2018 Ph.D. Molecular Plant Sciences, Washington State University  
Dissertation title: *Evolutionary genomics of flower diversification in the magic flowers* (Achimenes, Gesneriaceae)  
Advisor: Eric H. Roalson  
2007 – 2012 B.S. Biology, Whitworth University, Spokane  
2007 – 2012 B.A. Art, Whitworth University, Spokane

### Employment

2018 – present Postdoctoral Fellow, University of Arkansas, Fayetteville  
Mentor: Andrew J. Alverson  
2013 – 2018 Teaching Assistant, Washington State University, Pullman  
2012 – 2013 Research Assistant, Washington State University, Pullman  
2010 – 2012 Greenhouse worker, Whitworth University, Spokane

### Publications

2018  
**Roberts WR**, Roalson EH. 2018. Phylogenomic analyses reveal extensive gene flow within the magic flowers (Achimenes). *American Journal of Botany* 105(4): 726-740. DOI: 10.1002/ajb2.1058  
2017  
**Roberts WR**, Roalson EH. 2017. Comparative transcriptome analyses of flower development in four species in Achimenes (Gesneriaceae). *BMC Genomics* 18(1): 240. DOI: 10.1186/s12864-017-3623-8  
2016  
Roalson EH, **Roberts WR**. 2016. Distinct processes drive diversification in different clades of Gesneriaceae. *Systematic Biology* 65(4): 662-684. DOI: 10.1093/sysbio/syw012

### Grant and Awards

2016 Doctoral Dissertation Improvement Grant, National Science Foundation  
*Evolution of gene expression in floral diversification of Neotropical Gesneriaceae*  
PI: Eric Roalson, Co-PI: Wade Roberts, \$19,323  
2016 Elvin McDonald Research Endowment Fund, The Gesneriad Society  
*Characterizing a red-to-blue flower color transition in Achimenes (Gesneriaceae)*  
PI: Wade Roberts, \$1,750  
2016 Best Poster Presentation, Inland Northwest Genomic Symposium  
2015 Travel Award, American Society of Plant Taxonomists, \$300  
2012 Global Plant Sciences Initiative Fellowship, Washington State University  
2011 NSF REU Fellow in Synthetic Biology, North Carolina State University

### Presentations

*Selected contributed abstracts*  
2018 *Gene co-expression network connectivity is an important determinant of selective constraint during flower diversification in the magic flowers* (Achimenes, Gesneriaceae), Botany meeting, Rochester, MN  
2017 *Genomic evidence for gene flow between species of magic flowers* (Achimenes, Gesneriaceae), Evolution meeting, Portland, OR  
2017 *Dissecting floral diversification in the magic flowers* (Achimenes, Gesneriaceae), SBS Graduate Student Symposium, WSU  
2015 *Understanding flower diversification in Achimenes (Gesneriaceae) using a comparative transcriptomics approach*, Botany meeting, Edmonton, AB

#### *Invited departmental seminars*

- 2017 *Evolutionary genomics in the magic flowers* (Achimenes, Gesneriaceae)  
Washington State University
- 2016 *Floral diversification in Gesneriaceae: macroevolutionary and genomics approaches*  
Washington State University

#### *Selected poster presentations*

- 2018 *Phylogenomic analyses reveal extensive gene flow within the magic flowers* (Achimenes), Botany meeting, Rochester, MN
- 2017 *Exploring phylogenetic relationships in Achimenes (Gesneriaceae) using transcriptome sequencing*, SBS Graduate Student Symposium, Moscow ID
- 2016 *Using comparative transcriptomics to understand flower diversification: an example from Achimenes (Gesneriaceae)*, Inland Northwest Genomics Research Symposium, Moscow, ID
- 2015 *Understanding flower diversification in Achimenes (Gesneriaceae) using a comparative transcriptomics approach*, Pan-Am Evo-Devo inaugural meeting, Berkeley, CA
- 2015 *Geographic processes drive diversification in different clades of Gesneriaceae*, SBS Graduate Student Symposium, Moscow, ID
- 2011 *Cloning and evolutionary analyses of SEPALLATA3 genes from dogwoods – deciphering the genetic links to bract petaloidy*, North Carolina State University Undergraduate Summer Research Symposium, Raleigh, NC

### **Teaching Experience**

- 2018 Guest Lecturer, Systematic Botany, Washington State University
- 2013 – 2018 Teaching Assistant, Washington State University  
Biol 332 Systematic Botany, 3 semesters  
Biol 120 Introductory Botany, 3 semesters  
Biol 106 Introductory Biology: Organismal Biology, 5 semesters
- 2012 Supplemental Instructor, Whitworth University  
Biol 140 General Biology I: Organismal Biology
- 2010 – 2012 Teaching Assistant, Whitworth University  
Biol 363 Genetics, 1 semester  
Biol 153 Plant Biology, 2 semesters

### **Additional Experience**

- 2016 – 2018 Fieldwork and Floristics, Hudson Biological Reserve, Washington State University
- 2011 Undergraduate Research Assistant, Whitworth University
- 2011 NSF Research Experience for Undergraduates, North Carolina State University

### **Professional Societies**

Botanical Society of America  
The Gesneriad Society  
Society for the Study of Evolution

### **Service**

- 2018 Volunteer Botanist, Palouse Conservation District
- 2016 – 2018 Faculty Representative, MPS Graduate Student Organization
- 2017 Co-Lead Organizer, Plant Science Day, Washington State University
- 2014 – 2016 Co-Lead, Palouse Discovery Science Center Committee
- 2016 Exhibit Leader, Plant Science Day
- 2015 Native Plant Guide, Palouse Outdoor Science Day
- 2014 – 2015 Greenhouse Tour Guide, Biology Open House

### **Scientific Peer Review**

*PhytoKeys, Plant Growth Development*

### **Mentoring**

#### *Graduates*

- Joseph Kleinkopf, M.S., 2016 – 2018
- Nan Zhang, visiting scholar, 2017 – 2018
- Raimundo Luciano Soares Neto, visiting scholar, 2017

#### *Undergraduates*

- Mara Huang, 2017

Connor McLeod, 2017  
Tia Prudholm, 2017  
Bethany Tegt, 2017

## **Honorific Names**

'Wade Riley', M. Roberts, Tall Bearded Iris, The American Iris Society, 2007

## **References**

Dr. Eric H. Roalson (Ph.D. advisor)  
Professor  
School of Biological Sciences  
Washington State University  
Box 644236  
Pullman, WA 99164-4236  
[eric\\_roalson@wsu.edu](mailto:eric_roalson@wsu.edu)

Dr. Joanna L. Kelley (Committee member)  
Assistant Professor  
School of Biological Sciences  
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Dr. Andrew McCubbin (Committee member)  
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