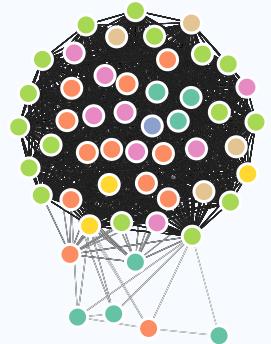


# ALEX RAJEWSKI

Experienced bioinformatician with extensive experience in oncology, drug screening, single-cell sequencing, spatial transcriptomics, epigenetics, genome assembly, and phylogenetics. Also skilled in pipeline development, include Nextflow, Docker, Singularity, and Git. I am an excellent science communicator to both [public](#) and [professional](#) audiences.



## EDUCATION

- 2020 • **PhD Bioinformatics & Plant Biology**  
University of California, Riverside
- 2015 • **MS Horticulture**  
University of Georgia
- 2010 • **BS Biochemistry, Cell, and Molecular Biology**  
Drake University

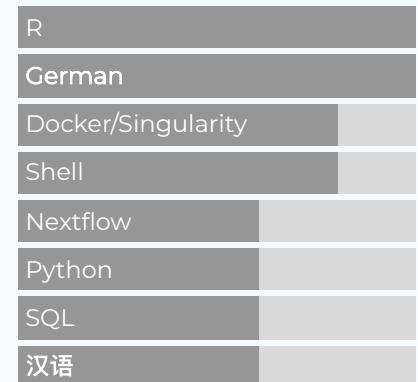
## WORK EXPERIENCE

- current | 2022 • **Bioinformatics Scientist**  
SEngine Precision Medicine
  - Development of high-throughput drug screening analysis pipelines in R
  - Consultation on experimental design and statistical analysis
- 2022 | 2021 • **Research Bioinformatician II**  
Cedars-Sinai Genomics Core
  - Advanced analysis of single-cell RNA-seq, spatial transcriptomics, WES/WGS, CUT&Tag, ATAC-seq
  - Pipeline development with Nextflow, Docker, and Git
- 2020 | 2015 • **Research Assistant**  
University of California, Riverside
  - Created and characterized CRISPR mutants for a trait validation project
  - Sequenced, assembled, and functionally annotated the genome of *Datura stramonium*
- 2015 | 2013 • **Research Assistant**  
University of Georgia
  - NGS and microsatellite analysis of population genetic structure

## CONTACT

- ✉ [AlexCRajewski@gmail.com](mailto:AlexCRajewski@gmail.com)
- /github/ [github.com/rajewski](https://github.com/rajewski)
- /r/ [rajewski.github.io](https://rajewski.github.io)
- /in/ [in/alexrajewski](https://in/alexrajewski)
- /t/ [@Rajewski](https://twitter.com/Rajewski)

## LANGUAGE SKILLS



- 2012  
|  
2011
- **Congress-Bundestag Fellow & Research Intern**  
Universität Rostock
    - Vaccine production in transgenic plants
    - Developed plant transformation methods in lupine, pea, tobacco, and potato
- 2011  
|  
2010
- **Research Assistant**  
Pioneer Hi-Bred (Corteva)
    - Developed SQL database to integrate phenotypic and genotypic measurements
- Aug 2009  
|  
May 2009
- **NSF Research Intern**  
North Carolina State University
    - Validated viral protein production in novel hosts
- ☰ PEER-REVIEWED PUBLICATIONS
- 2023
- **Stacking the odds: Multiple sites for HSV-1 latency**  
Science Advances.  
Shaohui Wang, Xueying Song, **Alex Rajewski**, Chintda Santiskulvong, and Homayon Ghiasi
- 2022
- **Multispecies Transcriptomes Reveal Core Fruit Development Genes**  
Frontiers in Plant Science  
**Alex Rajewski**, Dinusha Maheepala, Jessica Le, Amy Litt
- 2022
- **SOX9 switch orchestrates dynamic Wnt niches and kidney myofibroblast activity**  
Cell (In Review)  
Z. Wang; S. Aggarwal; **A. Rajewski**; M.K. Bhasin; K. Suresh; M. Yamashita; H. Akiyama; S.A. Karumanchi; S.C. Jordan; P.W. Noble; P.E. Cippà; S. Kumar.
- 2022
- **Cell therapy attenuates endothelial dysfunction in hypertensive rats with heart failure and preserved ejection fraction**  
Heart and Circulatory Physiology  
G. de Couto, T. Mesquita, X. Wu, **A. Rajewski**, F. Huang, A. Akhmerov, N. Na, D. Wu, Y. Wang, L. Li, M. Tran, P. Kilfoil, E. Cingolani, E. Marbán
- 2021
- **Datura Genome Reveals Duplications of Psychoactive Alkaloid Biosynthetic Genes and High Mutation Rate Following Tissue Culture**  
BMC Genomics  
**Alex Rajewski**, Derreck Carter-House, Jason Stajich, and Amy Litt
- 2019
- ***in Vitro* Plant Regeneration and *Agrobacterium tumefaciens*-mediated Transformation of *Datura stramonium***  
Applications in Plant Science  
**Alex Rajewski**, Kevan Elkins, Ashley Henry, Joyce Van Eck, and Amy Litt
- 2019
- **Evolution and Diversification of *FRUITFULL* Genes in Solanaceae**  
Frontiers in Plant Science  
Dinusha Maheepala, Chris Emerling, **Alex Rajewski**, Jenna Macon, Maya Stahl, Natalia Pabón-Mora, and Amy Litt

- 2018
- **Classification and phylogenetic analyses of the *Arabidopsis* and tomato G-type lectin receptor kinases**  
BMC Genomics  
Marcella A. Teixeira, **Alex Rajewski**, Jiangman He, Olenka G. Castaneda, Amy Litt, and Isgouhi Kaloshian

## TEACHING EXPERIENCE

- 2019
- **Tools for building highly customized figures**  
Botany Conference
    - Co-taught a workshop using base R graphics for data presentation
- 2019
- **Making Your Work Environment LGBTQ+ Welcoming and Affirming**  
Plant Biology Conference
    - Hosted a panel discussion on LGBTQ+ representation and workplace issues
    - Recruited speakers from both academia and industry
- 2018
- **California's Cornucopia (TA)**  
UCR Dept of Botany and Plant Science
    - Led discussion sections for 120 students
    - Introductory, non-major course
- 2016
- **Foundations of Plant Biology (TA)**  
UCR Dept of Botany and Plant Science
    - Designed and led lab sections for 80 students
    - Broad, upper-division course

## OUTREACH

- current  
|  
2010
- **Extension Master Gardener**  
California, Iowa, Kansas, Georgia
- current  
|  
2018
- **Big Brother**  
Big Brothers Big Sisters of the Inland Empire
- 2020  
|  
2016
- **Community OUTreach Educator**  
University of California, Riverside
- 2020  
|  
2017
- **Mentor**  
Planting Science
- 2018  
|  
2017
- **President**  
UCR Queer (LGBT) Graduate Student Association
- 2018  
|  
2017
- **Academic Affairs Officer**  
University of California, Riverside

- 2018 | ● **Secretary, Botany Grad Student Assoc.**  
University of California, Riverside
- 2017 | ● **Mentor, Grad Student Mentorship Program**  
University of California, Riverside
- 2018 | ● **Member Services Taskforce**  
American Society for Horticultural Science (ASHS) Conference
- 2016 | ● **Chair, Grad Student Working Group**  
American Society for Horticultural Science (ASHS) Conference
- 2015 | ● **Vice President, Horticulture Grad Student Assoc.**  
University of Georgia
- 2010 | ● **President, Beta Beta Beta**  
Drake University

## ORAL AND POSTER PRESENTATIONS

- 2020 | ● **Multispecies fruit transcriptomes highlight divergence across developmental and evolutionary time** 📍 Botany Conference  
Oral presentation
- 2019 | ● **Hybrid Origin of Bamboo Population Inferred from Haplotype-Phased Amplicon sequencing** 📍 Oral presentation  
Southern California Evolutionary Genetics and Genomics Meeting
- 2019 | ● **Identification of Conserved Regulatory Modules in Dry and Fleshy Fruit Development** 📍 Botany Conference  
Oral presentation
- 2017 | ● **There and Back Again: When Evolution Reverses** 📍 American Society for Horticultural Science (ASHS) Conference  
Three-Minute Thesis Competition  
• 3rd Place Award
- 2017 | ● **Optimizing Tissue Culture Methods in Diverse Nightshade Species** 📍 ASHS Conference  
Poster Presentation
- 2017 | ● **Developmental Transcriptome of *Nicotiana obtusifolia*** 📍 UC Riverside CEPCEB Post-Doc Symposium  
Poster Presentation
- 2016 | ● **Optimizing Tissue Culture Methods in Diverse Solanaceae Species** 📍 Solanaceae Conference  
Poster Presentation
- 2016 | ● **Evidence of Interspecific Hybridization or Incomplete Lineage Sorting in River Cane (*Arundinaria gigantea*)** 📍 ASHS Conference  
Oral presentation
- 2016 | ● **A Family Divided: Evolution of Dry and Fleshy Fruit in Nightshades** 📍 ASHS Conference  
Three-Minute Thesis Competition  
• 1st Place Award

- 2016
  - **Role of *FRUITFULL* in the Evolution of Fleshy Fruits: Optimizing Solanaceae Tissue Culture to Generate Stable Transgenic Knockout Lines**  
Oral presentation 📍 Botany Conference
- 2015
  - ***In Vitro* Comparison of Benzyladenine and *meta*-Topolin on Shoot Proliferation of River Cane, a Candidate for Wetlands Restoration**  
Poster Presentation 📍 ASHS Conference
  - **Raising Cane: Sustainable Bamboo Restoration in the American Southeast**  
Three-Minute Thesis Competition 📍 ASHS Conference  
University of Georgia
    - 1st Place Award at ASHS
    - Top 10 at UGA
  - **Clonal Structure, Genetic Diversity, and *in vitro* Propagation of River Cane (*Arundinaria gigantea*), a candidate for use in wetlands reclamation**  
Oral presentation 📍 Southern Region ASHS Conference
  - **Disinfestation and *in vitro* Growth and Development of *Arundinaria***  
Oral presentation 📍 UGA Interdisciplinary  
Graduate Plant and Soil Symposium
    - 1st Place Award (Masters Category)
  - **Sterilization and *in vitro* Growth and Development of *Arundinaria***  
Poster Presentation 📍 Southern Region of North America  
International Plant Propagators Society Conference
  - **Comparison of the Symptoms Caused by Three Geminiviruses in a Common Host**  
Poster Presentation 📍 NCSU Summer Undergraduate Research Symposium  
Drake University Conference on Undergraduate Research in the Sciences