

# Christopher J. Fiscus, PhD

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## Education

**Ph.D. Genetics, Genomics and Bioinformatics**, University of California, Riverside 2022  
Dissertation: *Causes and consequences of plant genome evolution*  
Advisor: Dr. Daniel Koenig

**B.S. Biotechnology**, University of California, Davis 2015

## Professional Experience

**Bioinformatics Scientist I**, Exact Sciences Corp. 10/2024 - Present

**Postdoctoral Scholar**, University of California, Irvine 09/2022 - 09/2024  
Dept of Ecology and Evolutionary Biology  
Advisor: Dr. Brandon Gaut

**Graduate Student Researcher**, University of California, Riverside 09/2016 - 09/2022  
Dept of Botany and Plant Sciences  
Advisor: Dr. Daniel Koenig

**Quality Control Laboratory Technician**, Charles Krug Winery 12/2015 - 08/2016

**Harvest Laboratory Technician**, Charles Krug Winery (via Apex Life Sciences) 08/2015 - 12/2015

**Undergraduate Researcher**, University of California, Davis 01/2014 - 10/2014  
Advisor: Dr. Jeffrey Ross-Ibarra

**Undergraduate Intern**, University of California, Davis 03/2012 - 06/2012  
Advisor: Dr. Kent J. Bradford

## Teaching Experience

**Guest Lecturer**, University of California, Riverside 02/2020  
BIOL 119. Introduction to Genomics and Bioinformatics.  
Lecture: Genomics, Phenotype and Disease.

**Teaching Assistant**, University of California, Riverside  
BIOL 119. Introduction to Genomics and Bioinformatics 01-03/2019, 01-03/2020, 01-03/2021  
BIOL 102. Introductory Genetics 01-03/2018

**Community Education Instructor**, Modesto Junior College  
Science Camp 06-08/2013, 06-08/2014

**Community Education Assistant Instructor**, Modesto Junior College  
Introductory LEGO Mindstorms NXT Robotics 06-08/2012, 06-08/2013, 06-08/2014  
Advanced LEGO Mindstorms NXT Robotics 06-08/2013, 06-08/2014  
Video Game Programming for Kids 06-08/2014

## Publications 0000-0001-9569-1809

### Preprints

Martin GT, **Fiscus CJ**, Gaut BS. Quantifying evolution of SNPs that affect RNA secondary structure in *Arabidopsis thaliana* genes. bioRxiv. 2024. p. 2024.09.27.615253. doi:10.1101/2024.09.27.615253

**Fiscus CJ**, Aguirre-Liguori JA, Gaut GRJ, Gaut BS. Climate, population size, and dispersal influences mutational load across the landscape in *Vitis arizonica*. bioRxiv. 2024. p. 2024.08.22.609253. doi:10.1101/2024.08.22.609253

### In press

Landis JB, Guercio AM, Brown KE, **Fiscus CJ**, Morrell PL, Koenig D. Natural selection drives emergent genetic homogeneity in a century-scale experiment with barley. Science. 2024;385: eadl0038. doi:10.1126/science.adl0038

Deb SK, Kalra D, Kubica J, Stricker E, Truong VQ, Zeng Q, **Fiscus CJ**, [41 authors], Sedlazeck FJ, Busby B. The fifth international hackathon for developing computational cloud-based tools and resources for pan-structural variation and genomics. F1000Res. 2024;13: 708. doi:10.12688/f1000research.148237.1

**Fiscus CJ**, Herniter IA, Tchamba M, Paliwal R, Muñoz-Amatriaín M, Roberts PA, Abberton M, Alaba O, Close TJ, Oyatomi O, Koenig D. The pattern of genetic variability in a core collection of 2,021 cowpea accessions. G3. 2024. doi:10.1093/g3journal/jkae071

Martinez SE, Conn CE, Guercio AM, Sepulveda C, **Fiscus CJ**, Koenig D, Shabek N, Nelson DC. A KARRIKIN INSENSITIVE2 paralog in lettuce mediates highly sensitive germination responses to karrikinolide. Plant Physiol. 2022. doi:10.1093/plphys/kiac328

### Selected Presentations

**Fiscus CJ**, Aguirre-Liguori JA, Gaut GRJ, Gaut BS. Landscape genomics and mutational load in *Vitis arizonica*. Poster. SMBE 2024. Puerto Vallarta, Mexico

**Fiscus CJ**, Aguirre-Liguori JA, Gaut GRJ, Gaut BS. Landscape genomics and mutational load in *Vitis arizonica*. Talk. Southern California Evolutionary Genetics and Genomics Meeting (SCaE) 2024. Pasadena, CA, USA

**Fiscus CJ**, Landis JB, Morales-Cruz A, Gaut BS. Disentangling the evolution of grape crop wild relatives. Talk. Plant and Animal Genome Conference 31. San Diego, CA, USA

**Fiscus CJ**, Landis JB, Morales-Cruz A, Gaut BS. Disentangling the evolution of grape crop wild relatives. Talk. Southern California Plant Biology Symposium 2023. Riverside, CA, USA

**Fiscus CJ**, Koenig D. The genetic control of rapid genome content divergence in *Arabidopsis thaliana*. Poster. SMBE 2023. Ferrara, Italy

**Fiscus CJ**, Koenig D. The genetic control of rapid genome content divergence in *Arabidopsis thaliana*. Talk. SMBE everywhere GS7. Online

**Fiscus CJ**. Causes and consequences of plant genome evolution. Seminar. 01/2023. Friends of Evolution Seminar Series, Dept. of Ecology and Evolutionary Biology UC Irvine. Irvine, CA, USA

**Fiscus CJ**, Koenig D. The genetic control of rapid genome content divergence in *Arabidopsis thaliana*. Poster. PEQG 2022. Pacific Grove, CA, USA

**Fiscus CJ**, Koenig D. A catalog of genome content variation in *Arabidopsis thaliana*. Poster. TAGC 2020 Online. Online. doi: 10.6084/m9.figshare.12148632.v1

**Fiscus CJ**, Koenig D. A K-mer based approach to characterize the dark matter of the *Arabidopsis thaliana* genome. Poster. Southern California Evolutionary Genetics and Genomics Meeting (SCaE) 2019. Irvine, CA, USA

**Fiscus CJ**, Koenig D. A K-mer based approach to characterize the dark matter of the *Arabidopsis thaliana* genome. Poster. SMBE 2019. Manchester, UK

## Awards and Fellowships

SMBE2024 Young Investigator Award- \$2000	2024
UCR Graduate Student Association Conference Travel Grant- \$400	2022
Earle C. Anthony Graduate Student Travel Award (UCR)-\$1000	2020
UCR Graduate Student Association Conference Travel Grant- \$900	2019
Best Student Appetizer, UCR Botany and Plant Sciences Holiday Party	2017, 2018, 2019
Dean's Distinguished Fellowship (UCR)- \$210,938	2016 - 2021

## Outreach

Scientist Mentor, PlantingScience	09/2017 - 05/2020
Volunteer, UC Riverside Plant Discovery Day	04/2019
Master Plant Science Team, PlantingScience	09/2017 - 05/2018
Guest Speaker, James C. Enochs High School Forensics/Biotechnology Career Pathway Program	03/2017

## Service

Organizer, Southern California Evolutionary Genetics and Genomics Meeting (SCaE)	2023
President, GGB Graduate Student Association (UCR)	2019 - 2020
Secretary, GGB Graduate Student Association (UCR)	2017 - 2018

## Professional Affiliations

Genetics Society of America	2020 - Present
Society for Molecular Biology and Evolution	2017 - Present

## Mentoring

Livia Nguyen, UCR undergraduate	2020
Caitlin Santos, UCR undergraduate	2019 - 2021
Johnny Nguyen-Tran, UCR undergraduate	2019
Chris Roland Valdez, NSF-CEPCEB REU Program in Next Generation Plant Biology	06-08/2018
Selena Burke, NSF-CEPCEB REU Program in Next Generation Plant Biology	06-08/2017