Arun Durvasula, PhD

Postdoctoral Research Fellow, Department of Genetics, Harvard Medical School
Email: arun_durvasula@hms.harvard.edu | Website: https://arundurvasula.github.io

Education

PhD Human Genetics, University of California, Los Angeles 2016-2021
BS Biotechnology, University of California, Davis 2011-2015

Experience

Postdoctoral Research Fellow. Department of Genetics, Harvard Medical School. 2021-Present
Mentors: Dr. David Reich & Dr. Alkes Price
Graduate Research Fellow. Department of Human Genetics, UCLA. 2016-2021
Mentors: Dr. Kirk Lohmueller & Dr. Sriram Sankararaman
Post-Bac Researcher. Max Planck Institute for Plant Breeding Research. 2015-2016
Mentor: Dr. Angela Hancock
Undergraduate Researcher. University of California, Davis. 2013-2015
Mentor: Dr. Jeffrey Ross-Ibarra

Grants and Awards

Dimitris N. Chorafas Foundation Award 2021
Graduate Research Fellowship Program, National Science Foundation 2018-2021
International Conference for Quantitative Genetics Early Career Researcher Scholarship 2020
Stephen D. Cederbaum Travel Award, UCLA Genetics and Genomics 2019
Stephen D. Cederbaum Travel Award, UCLA Genetics and Genomics 2018
Kenneth I. Shine Fellowship, UCLA 2018
Vienna Biocenter Summer Internship Scholarship 2015
Undergraduate Travel Award, UC Davis Plant Sciences 2015

Publications

12. Molloy EK, **Durvasula A**, Sankararaman S. Advancing admixture graph estimation via maximum likelihood network orientation (2021). *Bioinformatics*. (Conference proceeding of ISMB).
11. **Durvasula A**, Lohmueller K. Negative selection on complex traits limits phenotype prediction accuracy between populations (2021). *American Journal of Human Genetics*.
    ▶ F1000 recommended
10. Boocock J, Sadhu MJ, **Durvasula A**, Bloom JS, Kruglyak L. Ancient balancing selection maintains incompatible versions of the galactose pathway in yeast (2021). *Science*.
    ▶ Highlighted in *Science*
9. PopSim Consortium. A community-maintained standard library of population genetic models (2020) *eLife*.
    ▶ Highlighted in *Nature Methods*
8. **Durvasula A**, Sankararaman S. Recovering signals of ghost archaic admixture in the genomes of present-day Africans (2020). *Science Advances*.
    ▶ F1000 recommended, highlighted in: New York Times, NPR, BBC, CNN
7. **Durvasula A**, Sankararaman S. A statistical model for reference-free inference of local archaic ancestry (2019). *PLoS Genetics*.
6. Huber CD*, **Durvasula A***, Hancock AM, Lohmueller KE. Gene expression drives the evolution of dominance (2018). *Nature Communications*.

5. Schumer M, Xu C, Powell D, **Durvasula A**, Skov L, Holland C, Sankararaman S, Andolfatto P, Rosenthal G, Przeworski M. Natural selection interacts with the local recombination rate to shape the evolution of hybrid genomes (2018). *Science*.
   ▶ F1000 recommended
4. Schweizer RM, **Durvasula A**, Smith J, Vohr SH, Stahler DR, Galaverni M, Thalmann O, Smith D, Randi E, Green RE, Lohmueller KE, Novembre J, Wayne RK. The evolutionary history of a selectively swept coat color and immunity locus in North American wolves (2018). *Molecular Biology and Evolution*.
3. **Durvasula A***, Fulgione A*, Gutaker RM, Alacakaptan SI, Flood PJ, Neto C, Alonso-Blanco C, Burbano HA, Pico FX, Tsuchimatsu T, Hancock AM. African genomes illuminate the early history and transition to selfing in *Arabidopsis thaliana* (2017). *Proceedings of the National Academy of Sciences*.
   ▶ F1000 recommended, highlighted in: *Science, Nature Plants*
2. **Durvasula A***, Hoffman PJ*, Kent TV, Liu C, Kono TJY, Morrell PL, Ross-Ibarra J. angsd-wrapper: utilities for analysing next-generation sequencing data (2016) *Mol Ecol Resour*.
1. Beissinger T, Wang L, Crosby K, **Durvasula A**, Hufford M, Ross-Ibarra J. Recent demography drives changes in linked selection across the maize genome (2016). *Nature Plants*.

Invited Seminars

Center for Computatational Molecular Biology, Brown University, Providence, Rhode Island	2021
Analytical and Translational Genetics Unit, Massachusetts General Hospital	2021
Evolutionary Genetics Super-group Meeting, University of Chicago, Illinois	2021
Department of Ecology and Evolutionary Biology, University of Toronto, Canada	2021
Salk Institute, La Jolla, California	2021
Rasmus Nielsen Lab, UC Berkeley, California	2020
Human Genetics Seminar Series, UCLA, California	2018

Conference talks

Population, Evolutionary, and Quatitative Genetics. Virtual	2020
Human Evolution. Hinxton, United Kingdom	2019
Society for Molecular Biology and Evolution. Yokohama, Japan	2018
RECOMB-Genetics. Los Angeles, California	2017
Vienna Biocenter Summer Symposium. Vienna, Austria	2015

Teaching and Service

Guest lecture: The neutral theory of evolution (UCLA), Spring 2019
Teaching assistant: Population Genetics (Undergraduate level course; UCLA), Spring 2018, 2019
Teaching assistant: Ecological Genomics (Graduate level course; UC Davis), Winter 2015
Mentoring: Scott Shi (undergraduate, UCLA); Mario Paciuc, Elliot Kang (Bruins in Genomics, UCLA)
Peer review: G3: Genes, Genomes, Genetics; Genome Biology and Evolution; ISMB; Molecular Ecology Resources; Nature Ecology and Evolution; PLoS Genetics

Software

ANGSD-wrapper: `https://github.com/ANGSD-wrapper/angsd-wrapper`
ArchIE: `https://github.com/sriramlab/ArchIE`
OrientAGraph: `https://github.com/ekmolloy/OrientAGraph`
stdpopsim: `https://github.com/popsim-consortium/stdpopsim`