Iman Hamid

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Versatile scientist with 7+ years of research experience in population genetics, genomics, bioinformatics, and evolutionary biology. Collaborative team player passionate about advancing computational and statistical methods to study genetic variation.

EDUCATION

Duke University, Durham, NC Expected Dec 2021
Doctor of Philosophy (PhD), Genetics & Genomics
- Certificate in College Teaching

UCLA, Los Angeles, CA Jun 2016
Bachelor of Science, Biology
- Summa cum laude
- Departmental Highest Honors

RELEVANT EXPERIENCE

Genetics & Genomics PhD Program, Duke University, Durham, NC Aug 2017 - present
Dissertation Project: *Detecting adaptation in admixed populations.* (**PI: Dr. Amy Goldberg**)
- integrated genetic ancestry information and genomic simulations to detect adaptation in populations with mixed ancestry
- conceived and implemented new summary statistics to characterize evolutionary history in admixed populations
- developed novel applications of machine learning and computer vision methods to localize adaptive genetic variants

NASA Ames Research Center, Mountain View, CA Jun 2016 - May 2017
Research Associate
- analyzed genetic and molecular responses to hypergravity-induced endoplasmic reticulum stress in *Drosophila melanogaster*
- characterized loss of dopaminergic neurons and associated behavioral changes in flies exposed to chronic hypergravity
- presented research at American Society for Gravitational and Space Research conference (Oct 2016)

SKILLS

- **Technical:** Coding languages (Python, R, Unix/Linux systems), genetic variant calling pipelines, population simulation software, machine learning (computer vision, random forests, clustering), statistics (Bayesian probability, hypothesis testing, regression analyses), data visualization (Python, R, Adobe Illustrator)
- **Lab:** DNA/RNA extraction, PCR, luciferase assay, gel electrophoresis, human cell culture, fruit fly husbandry
- **Languages:** English (Fluent/native), Arabic (intermediate/conversational), Spanish (basic)
- **Other:** Science communication & outreach, project leadership, teaching, creative writing, grant writing

LEADERSHIP AND SERVICE

President & Founder, *MicroMoles: Learning STEMs from Curiosity*, Durham, NC, 2018-present
- wrote short illustrated children's stories based on recent graduate student publications (https://sites.duke.edu/micromoles)

General Assembly Representative, *Graduate and Professional Student Council*, Durham, NC, 2018-2020
- represented my graduate program in campus-wide student government

IMPACTS Scholar, *UNC Morehead Planetarium*, Chapel Hill, NC, 2018-present
- designed and conducted genetics and evolutionary biology classroom and community expo activities

Invited speaker
- Guest lecture in Dr. Megan Phifer-Rixey's Evolution course at Monmouth University (Nov 2020)
- Club EvMed (https://tricem.org/education-and-outreach/club-evmed/) research presentation (Sept 2020)

HONORS AND AWARDS

Bass Instructor of Record Fellowship, Duke University, 2020
- awarded funding to independently design and teach an intermediate human population genetics course in Fall 2021

NSF Graduate Research Fellowship - Honorable Mention, National Science Foundation, 2019
Dean's Graduate Fellowship, Duke University, 2017

PUBLICATIONS

Hamid, I., Korunes, K. L., Beleza, S., & Goldberg, A. (2021). Rapid adaptation to malaria facilitated by admixture in the human population of Cabo Verde. *eLife*, 10, e63177. https://doi.org/10.7554/eLife.63177
- media recognition: https://today.duke.edu/2021/01/malaria-threw-human-evolution-overdrive-african-archipelago