Hannah P. Kania

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RESEARCH STATEMENT

I apply genetic and genomic tools to understand how micro-scale changes in genes can lead to macroevolutionary changes between species over time. I am focused on speciation genomics and conservation, and I am committed to sharing my research through effective science communication and outreach.

EDUCATION

Doctoral Student, Duke University — Durham, NC
Department of Biology — 2022-2028

B.A. University of California, Berkeley — Berkeley, CA
Bachelor of Arts in Molecular and Cell Biology, Developmental Genetics — May 14, 2021
Department Honors and Distinction in Scholarship — May 14, 2021
GPA: 3.796

RESEARCH EXPERIENCE

Integrative Evolutionary Genetics and Conservation Biology Lab of Dr. Anne Yoder — Durham, NC
Graduate Student; *Duke University* — 2022-Present
- Speciation Genomics, Cryptic Species, Conservation Biology

Molecular, Developmental, and Evolutionary Biology Lab of Dr. Patricia Wittkopp — Ann Arbor, MI
NSF Research Intern and Lab Manager; University of Michigan — 2021-2022
- Evolution of Gene Expression, Yeast Antimicrobial Peptide Production

Evolution, Ecology, and Global Change Biology Lab of Dr. Erica Bree Rosenblum — Berkeley, CA
Undergraduate Researcher; University of California Berkeley — 2019-2021
- Conservation-Based Landscape Genetics

Cardiovascular Research Institute (CVRI) Lab of Dr. Guo Huang — San Francisco, CA
Undergraduate Researcher; University of California, San Francisco — 2018
- Cardiomyocyte Regeneration in Mice Models

PROGRAMMING PROFICIENCIES

- Linux, Python, R/Markdown, GitHub, NCBI, FlowJo
- (Ongoing) Systematics Course with Dr. François Lutzoni, *Duke University Biology Department*
    - Mesquite, PAUP, IQ-TREE, Mr. Bayes, PAML, DeCIFR, FigTree

WORKSHOP ATTENDANCE

- **ComSciCon-Triangle, *NC State University*** — January 2023
- **Genome Sequencing and Assembly Workshop, *UConn Institute for Systems Genomics*** — Virtual, May 2022
- **Alignment Workshop, *Earth BioGenome Project*** — Virtual, June 2022

FUNDING

- **Graduate Research Fellowship, *National Science Foundation*** — 2024-2027 ($138,000)
- **James B. Duke Fellowship, *Duke University*** — 2022-2026 ($20,000)
- **University Scholars Fellowship, *Duke University*** — 2022 ($25,500)
- **Research Experience for Post-Baccalaureate Students, *National Science Foundation*** — 2021-2022 ($45,940)

AWARDS & HONORS

- **Event Financial Support from the Dean, *Duke University*** — 2023 ($1,000)
- **Professional Development Award, *Science Communicators of North Carolina*** — 2023 ($1,000)
- **#SciCommMake Project Award, *Sigma Xi & Association of Science Communicators*** — 2022-2023 ($1,000)

PUBLICATIONS

* Indicates co-first authors

- Byrne, AQ.*, Rothstein, AP.*, Smith, LL., **Kania, H.P**., Knapp, RA., Boiano, DM., Briggs, CJ., Backlin, AR., Fisher, RN., & Rosenblum, EB. (2022). *Revisiting conservation units using multiple genomic methods for the endangered mountain yellow-legged frog species complex (Rana muscosa, Rana sierrae)*. Manuscript submitted for publication.

ORAL PRESENTATIONS

Science Talk
Portland, OR April 7, 2023

- Currier, R., Gibson, C., & **Kania, H.P**. *The Bloom of Doom: Communicating the Science of the Florida Red Tide to a Young Audience.* (Invited Talk)

Population, Evolutionary, and Quantitative Genetics (PEQG)
Monterey, CA June 2022

- **Kania, H.P**., Siddiq, M.A., Brown, N., & Wittkopp, P.J. *Uncovering how three core metabolic enzymes evolved antimicrobial activity in Saccharomyces cerevisiae.* (Poster)

MCB Honors Virtual Poster Session
Berkeley, CA April 2021

- **Kania, H.P.** *An Open-Source Platform for Genotyping Batrachochytrium dendrobatidis.* (Poster)

OUTREACH

#SciCommMake, *Sigma Xi & Association of Science Communicators* Virtual
Funded Participant November 2022 - Present

- International collaboration between scientists, artists, and science communicators for accessibility of public health research.

The Art of a Scientist Durham, NC
Coordinator April, 2023

- (Upcoming) Collaboration between scientists and artists for accessibility of Duke research within the Durham community. Installation of a free, public art exhibition at the Rubenstein Arts Center.

SciREN Triangle Networking Event Raleigh, NC
Volunteer September 22, 2022

- Completed and presented a team-based classroom activity on lemur evolution and conservation for use by K-12 educators.

F.E.M.M.E.S Ann Arbor, MI
Volunteer 2021-2022
Connect Coordinator and Lead Volunteer March 26, 2022

- Designed and led a 1-hour scientific workshop for students in grades 6-8.
    - Workshop lesson on evolutionary tree-building skills using morphological traits and genetic features.

Advance Coordinator and Lead Volunteer February 5, 2022

- Designed and led a 30-minute scientific workshop for students in grades 9-12.
    - Workshop exploration of the impacts of human evolutionary history on current events using COVID-19 and Neanderthal genomic contributions as a case study.

University of Michigan Mentorship Program Ann Arbor, MI
Staff Mentor Volunteer 2021

- Staff contact for undergraduate student groups that ensure new students from all backgrounds are well-supported.