# Mika Wesley

Email: mkw50@pitt.edu, LinkedIn: https://www.linkedin.com/in/mika-wesley-1007aa21a/

**EDUCATION** 

Aug 2020 - Present University of Pittsburgh, Pittsburgh, PA

Anticipated Graduation: Majors: Molecular Biology, Gender/Sexuality/Women's Studies

April 2024 Minors: Chemistry, French

GPA: 3.846

**RESEARCH AND POSITIONS** 

Fall 2021 – Present Undergraduate Researcher, Pittsburgh, PA

Advisor: Dr. Sarah Hainer. Department of Biological Sciences, University of

Pittsburgh

Investigating the role of eRNAs in regulating Oct4 gene expression in

murine embryonic stem cells

Fall 2023 Cell Biology Student Researcher, Pittsburgh, PA

Advisor: Dr. Hildebrand Class: Cell Biology

Investigating actin-binding ability of conserved regions of Shroom2

Summer 2023 Undergraduate Researcher, Dublin, Ireland

Advisor: Prof Simpson. College of Science, University College Dublin Investigating Rab33B mutants' location and role in U2OS cells

Spring 2022 **Developmental Biology Student Researcher**, Pittsburgh, PA

Advisor: Dr. Campbell

Class: Developmental Biology

Testing drosophila genomic regions for repressive ability

Spring 2021 Foundations of Biology Student Researcher, Pittsburgh, PA

Advisor: Dr. Rebecca Bortz and Dr. Graham Hatfull

Annotating bacteriophage genome for SEA-PHAGES project

Spring 2021 & 2023 Foundations of Biology 2 UTA, Pittsburgh, PA

• Taught biological concepts for a class of over 200 undergraduates

Held office hours and helped students in recitations

Reviewed and wrote explanations for exam questions

### AWARDS AND FELLOWSHIPS

Honor's College Global Experiences Scholarship, 2023 Pitt Global Experiences Scholarship, 2023

Honor's College Fellowship, 2023 Chancellor's Fellowship, 2022

Norman H. Horowitz Award/Fellowship, 2022 Brackenridge Fellowship (Declined), 2022

University of Pittsburgh Dean's List, 2020-2023 University of Pittsburgh Merit Scholarship, 2020

#### SYMPOSIUM POSTERS AND PRESENTATIONS

2023 Penn State Chromatin Conference Poster: *Role of eRNAs in Oct4 gene expression*2023 Arcadia Abroad in Dublin Poster: *Rab33B mutants' location and role in U2OS cells* 

2023	Frederick Honor's College Poster: Role of eRNAs in Oct4 gene expression
2023	Biological Sciences Department Poster: Role of eRNAs in Oct4 gene expression
2022	Horowitz Fellowship Talk Presentation: Role of eRNAs in Oct4 gene expression

## **TECHNICAL SKILLS**

- **Mammalian cells**: murine embryonic stem cell culture, cell line maintenance, cell transfection
- Molecular biology: cloning, PCR, restriction digest reactions, gel electrophoresis, genomic DNA isolation and purification, plasmid design and prep (Miniprep/Miraprep), ligation, primer design, CRISPR/Cas9 cell targeting, Sanger sequencing preparation, RNA isolation, RTqPCR, nascent RNA labeling and isolation, ddPCR, ELIZA, SDS-PAGE
- Computing skills: coding in R, bioinformatics tools for gene annotation
- Bacteria: culture, cell transformation, luciferase assay
- **Microscopy**: fluorescent antibody staining, fixation, confocal point microscope image generation/analysis
- **Drosophila**: dissecting and fixing larvae, embryo injection, creating transgenic drosophila
- Project management
- Protocol optimization
- Sterile work
- Foreign Language: French proficiency

## **OUTREACH AND VOLUNTEER WORK**

Summer 2022 – Present Allegheny Reproductive Health Clinic Volunteer, Pittsburgh, PA

- Helped patients with scheduling appointments and answering questions
- Trained new volunteers
- Researched and educated on healthcare

Fall 2023 Undergraduate Research Involvement Panelist, Pittsburgh, PA

Spoke to undergraduate audience about benefits and logistics of getting involved in research

2013 – Present Media Food Bank Volunteer, Media, PA

• Collected and transported food donations