# CURRICULUM VITAE EMILY E BROWN

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#### **CURRENT POSITION**

2020 – present Research Specialist II

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

Investigating the function of the BAF complex in neural development.

**EDUCATION** 

2020 **B.S., Microbiology** University of Pittsburgh.

Department of Biological Sciences

Minor in Chemistry, Certificate in Global Health

#### **PREVIOUS POSITIONS**

Sept. 2019 – Undergraduate Researcher

Apr. 2020 Advisor: Dr. Jim Peterson and Dr. Linda Pearce. Department of Environmental and

Occupational Health, University of Pittsburgh School of Public Health.

Testing synergism of gallium and nitrite compounds as a potential novel antibiotic treatment

for Pseudomonas aeruginosa infections in Galleria mellonella.

Aug. 2017 – Research Extern

Jul. 2018 Advisor: Dr. Dana Bovbjerg. Department of Biobehavioral Oncology, University of

Pittsburgh Hillman Cancer Center.

Investigating the effect of brief stresses on DNA integrity in BRCA1/2 positive individuals.

Aug. 2017 – **Undergraduate Student** 

Dec. 2017 Professor: Dr. Jeffrey Hildebrand. Department of Biological Sciences, University of

Pittsburgh.

Investigating the role of the Shortstop protein on the Shroom induced phenotype in the wing

and eye of Drosophila melanogaster.

# AWARDS AND FELLOWSHIPSYear(s)University Honors College Undergraduate Research Fellowship2020Pitt in Ecuador Public Health Study Abroad Scholarship2019Connections4Health Community Health Fellowship2018Dean's List, Dietrich School of Arts and Sciences2016-2020

## **PUBLICATIONS**

H Zou, B Poore, **EE Brown**, J Qian, B Xie, V Razskazovskiy, D Ayrapetian, E Asimakidou, V Sharma, S Xia, F Liu, A Chen, Y Guan, Z Li, S Wanggou, X Wu, O Saulnier, M Ly, W Fellows-Mayle, G Xi, T Tomita, A Resnick, SC Mack, EH Raabe, CG Eberhart, D Sun, BE Stronach, S Agnihotri, G Kohanbash, S Lu, K Herrup, JN Rich, GK Gittes, A Broniscer, Z Hu, X Li, IF Pollack, RM Friedlander, SJ Hainer, MD Taylor, B Hu. Hijacking a neurodevelopmental epigenomic program in metastatic dissemination of medulloblastoma. *Nature Cell Biology*; Submitted, in review

## **POSTER PRESENTATIONS**

Undergraduate Research Symposium: The Role of Shortstop on the Shroom induced phenotype in the Wing and Eye of Drosophila, Pittsburgh, PA, USA. December 2017

# **RELEVANT COURSEWORK**

Genetics General Chemistry (+ lab) Virology lab

Genomics (+ lab) Organic Chemistry (+ lab) Intro to Neuroscience

Biochemistry Microbial Physiology Statistics

Immunology Microbiology (+lab) Physics I and II (+ lab)

# PROFESSIONAL MEMBERSHIPS

2019 - Present Member, Women in Biology (WIB) | Pittsburgh Chapter

2017 – 2018 Member, Nu Rho Psi National Honors Society | University of Pittsburgh Chapter

# **MENTORING EXPERIENCE**

Braulio Bonilla, Post-Doc, Jan 2021

Cell culture, RNA extraction, RTqPCR, Data Analysis

Santana Lardo, Research Specialist II, December 2020

Data Analysis, Computational Skills

Trirupa Chakraborty, Rotation Student, Sept 2021

RTqPCR, Data Analysis

#### **TECHNICAL SKILLS**

Mammalian Stem Cell Culture

CRISPR/Cas9 gRNA cloning

DNA and RNA library build

RNA and Protein extraction

Western Blot

RTqPCR

CUT&RUN

CUT&Tag

Nascent RNA-seq (TT-seq)

ATAC-seq

• R and Unix applications for deep sequencing data analysis

PCR

Gel electrophoresis

Bacterial culture

Miniprep/Miraprep

Microscopy and Spectrophotometry

• Microsoft Programs

Clinical Research

#### **VOLUNTEER AND LEADERSHIP EXPERIENCE**

Organization	Role	Academic Year(s)
Global Public Health Brigades, University of Pittsburgh Chapter	Co-president	2018 – 2019
	Member	2016 – 2018
University of Pittsburgh Outdoors Club	Backpacking chair	2017 – 2019
Connections4Health, Northside Christian Health Center	Community Health	2018
Pittsburgh, PA	Fellow	
Camp Christopher, Bath, OH	Resident Camp	2016-2017
	Counselor	