

# KATE GIFFIN

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## EDUCATION

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<b>UNC Post-baccalaureate Research Education Program (PREP)</b>	6/7/20 – 5/31/2021
<b>University of North Carolina at Chapel Hill</b> , Bachelor of Arts in Biology with Distinction	8/18 – 5/20
<ul style="list-style-type: none"><li>▪ Minor: Neuroscience</li><li>▪ Cumulative GPA: 3.6</li><li>▪ Honors Thesis: “As Far as the Frog Can See: Visual Acuity in Two Tropical Frogs.”<ul style="list-style-type: none"><li>○ Supervisor: Dr. Sabrina Burmeister</li></ul></li></ul>	
<b>Beaufort County Community College</b> , Associate of Science, <i>Summa Cum Laude</i>	8/17 – 5/18
<b>Flathead Valley Community College</b> , Online Classes	8/16 – 12/16

## RESEARCH EXPERIENCE

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**PREP Post-baccalaureate Scholar, Besheer Lab** 7/20 – 5/21

Supervisor: Dr. Joyce Besheer

*Bowles Center for Alcohol Studies, University of North Carolina at Chapel Hill*

- Conceptualized a study to test how individual differences in immune function influence how inflammation changes behavior and gene expression, using two different rat strains as a model.
- Designed a study investigating how an ethologically relevant stressor (the predator odor TMT) changes behavior and alcohol consumption in two rat strains with differing stress systems.

**Honors Thesis Student, Burmeister Lab** 5/19 – 5/20

Supervisor: Dr. Sabrina Burmeister

*Department of Biology, University of North Carolina at Chapel Hill*

- Designed a study to test the visual acuity of two frog species, involving behavioral analysis of the optomotor response and histologically quantifying retinal ganglion cell density with Nissl stains (tissue phase cut short due to COVID-19 restrictions).
- Assisted in running Morris Water Maze and other behavioral trials, analyzing data collected through EthoVision, and collecting and processing brain tissue.

**SMART Intern and Research Assistant, Social Neuroscience and Health Lab** 5/19 – 5/20

Supervisor: Dr. Keely Muscatell

*Department of Psychology and Neuroscience, University of North Carolina at Chapel Hill*

- Designed a survey study examining the cultural aspects of antismoking advertisements and their effectiveness across the socioeconomic spectrum.
- Designed a study examining the associations between food insecurity, cognitive functioning, and inflammation in older adults, using data from the National Health and Nutrition Survey.
- Collaborated on fMRI analyses, including running and altering scripts for data management, and assisting with quality assurance, preprocessing, and data organization. Scheduled and screened research participants, and administered the Trier Social Stress Task.

**Research Assistant, JonesLab** 8/18 – 5/19

Supervisor: Dr. Haiyan Jia

*Department of Biology, University of North Carolina at Chapel Hill*

- Performed detail-oriented benchwork to advance G protein cell signaling research in plants.

## **PRESENTATIONS**

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- Giffin, K., Lovelock, D., & Besheer, J. (May 2021). **“Neuroimmune Activation and Mental Health: The Role of Individual Differences.”** Oral presentation given at the UNC PREP Research Symposium, 2021.
- Giffin, K., Lovelock, D., & Besheer, J. (May 2021). **“Inflammation and Mental Health: The Role of Individual Differences.”** Updated poster presented at the Mid-Atlantic PREP/IMSD Research Symposium (MAPRS) 2021.
  - 2<sup>nd</sup> Place Winner, Post-baccalaureate/Undergraduate Poster Presentation Category
- Giffin, K., Lovelock, D., & Besheer, J. (November 2020). **“Inflammation and Mental Health: The Role of Individual Differences.”** Poster presented at the Annual Biomedical Research Conference for Minority Students (ABRMCS) 2020.
  - Outstanding Poster Presentation Award
- Giffin, K., Alvarez, G., & Muscatell, K. (April 2020). **“Effectiveness of Antismoking Ads Across the Socioeconomic Spectrum.”** Poster archived at the 2020 UNC Virtual Celebration of Undergraduate Research, Chapel Hill, North Carolina.
- Giffin, K., Sorrell, C., & Burmeister, S. (March 2020). **“As Far as the Frog Can See: Visual Acuity in Two Tropical Frogs.”** Poster accepted for presentation at the Virginia Tech Mid-Atlantic Undergraduate Research Conference, Blacksburg, Virginia (conference was cancelled due to COVID-19).
- Broso, S., Giffin, K., Lazard, A., Sheeran, P., & Muscatell, K. (November 2019). **“Closing the Gap in Socioeconomic Disparities in Cancer: Using Neuroscience and Social Psychology to Improve Cancer Prevention Messaging.”** Poster presented at the Lineberger Comprehensive Cancer Center Scientific Retreat and Poster Session, Chapel Hill, North Carolina.
- Giffin, K., Alvarez, G., & Muscatell, K. (July 2019). **“No Food for Thought: Food insecurity, Inflammation, and Cognitive Functioning.”** Poster presented at the Summer Undergraduate Pipeline Research Symposium, Chapel Hill, North Carolina.
- Giffin, K., & Carlisle, A. **“The Effect of Music on Taste Perception of Chocolate.”** Poster presented at the Beaufort County Community College Science Fair sponsored by the North Carolina Science Festival, Washington, North Carolina.
  - First Place, Chemistry Poster
  - First Place, Overall Poster

## **OTHER WORK EXPERIENCE**

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- Teaching Assistant**, Duke TIP Summer Studies at Davidson College 6/18 – 7/18
- Actively supervised 28 gifted middle school students in a Biological & Chemical Sciences class.
  - Prepared supplies and facilitated student labs in biology and chemistry at a high school level.
  - Coordinated interdisciplinary collaborations with other Duke TIP classes.
  - Created and delivered daily science lectures.
- Math Peer Tutor**, Beaufort County Community College Trio Student Support Services 1/18 – 6/18
- Coached disadvantaged students through math anxiety and helped them improve their math study skills, academic confidence, and understanding of course content.
  - Created a math resources guide with notes and worksheets for future students and tutors.
- Freelance Writer**, Giffink.com & Textbroker.com 12/16 – 6/18
- Maintained relationships with clients to consistently deliver high quality online content.
  - Ghost-wrote a series of articles on the applications of stem cell research for the general public.

## HONORS AND AWARDS

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### University of Michigan Rackham Merit Fellowship 4/21 – Present

- Nominated for the Rackham Merit Fellowship for graduate students with outstanding potential for scholarship and impact on their communities.

### Post-baccalaureate Research Education Program (UNC PREP) 6/20 – 5/21

- Selected for the immersive PREP Program, led by Dr. Joshua Hall and funded by the NIH.
  - Conducted full-time research in the lab of Dr. Joyce Besheer.
  - Participating in weekly professional development training, networking opportunities, and a graduate course (Neurodevelopmental Basis of Brain Disorders).

### Mid-Atlantic PREP/IMSD Research Symposium (MAPRS) 5/21

- 2<sup>nd</sup> Place Winner, Post-baccalaureate/Undergraduate Poster Presentation Category

### Annual Biomedical Research Conference for Minority Students (ABRMCS) 11/2020

- Outstanding Poster Presentation Award

### Science and Math Achievement and Resourcefulness Track Research Internship 5/19 – 7/19

- Earned the SMART research internship for transfer students, led by Dr. Gidi Shemer and funded by the North Carolina Louis Stokes Alliance for Minority Participation.
  - Conducted research in the Social Neuroscience and Health Lab and presented my project at the Summer Undergraduate Pipeline Research Symposium.
  - Participated in professional development training and networking opportunities.

### TEDxUNC Student Speaker Salon: 1/17/19

- Selected to give a talk titled “Science and Poetry: The Power of Interdisciplinary Thinking.”

## COMMUNITY ENGAGEMENT

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### Writer, UNC Science Communication Organizations

- **The Pipettepen:** Wrote the articles “Gastrophysics: How to hack your taste buds” and “What octopuses on ecstasy tell us about brain evolution” for the science blog The Pipettepen, run by the UNC Science Writing and Communication Club.
- **Carolina Scientific:** Interviewed UNC marine microbiologist Dr. Alecia Septer and wrote an article titled “Bacteria Battle it Out,” for the fall 2019 issue of the student undergraduate student-led research magazine, Carolina Scientific.

### Initiative on Poverty and Inequality, Food Security Committee Member

- Designed and organized events and resources to combat and raise awareness about food insecurity in UNC and Chapel Hill. For example, the student guide “Being Not Rich at UNC.”

### Splash UNC Teacher

- Designed and taught a two short classes for visiting high school students on gastrophysics and animal behavior.

### UNC College Unions Poetry Slam Invitational (CUPSI) Team Captain

- Team captain for the poetry slam team representing UNC on the national stage in 2020 (competition cancelled due to COVID-19).