

Georgia Southern University

Digital Commons@Georgia Southern

---

Honors College News Blog

Honors College

---

9-25-2019

## University Honors Program News

Georgia Southern University

Follow this and additional works at: <https://digitalcommons.georgiasouthern.edu/honors-news>



Part of the [Higher Education Commons](#)

---

### Recommended Citation

Georgia Southern University, "University Honors Program News" (2019). *Honors College News Blog*. 72. <https://digitalcommons.georgiasouthern.edu/honors-news/72>

This news article is brought to you for free and open access by the Honors College at Digital Commons@Georgia Southern. It has been accepted for inclusion in Honors College News Blog by an authorized administrator of Digital Commons@Georgia Southern. For more information, please contact [digitalcommons@georgiasouthern.edu](mailto:digitalcommons@georgiasouthern.edu).

## Summer Research at Yale

September 25, 2019

Throughout her time at Georgia Southern, Katherine Barrs (Biology and Mathematics '21) has received ample recognition for her achievements in academics and undergraduate research such as her 2018 summer spent researching bees and winning the prestigious Barry Goldwater Scholarship this past May. In continuing with this progress, Barrs adds to her long list of accolades by participating in a summer Research Experience for Undergraduates at Yale University.

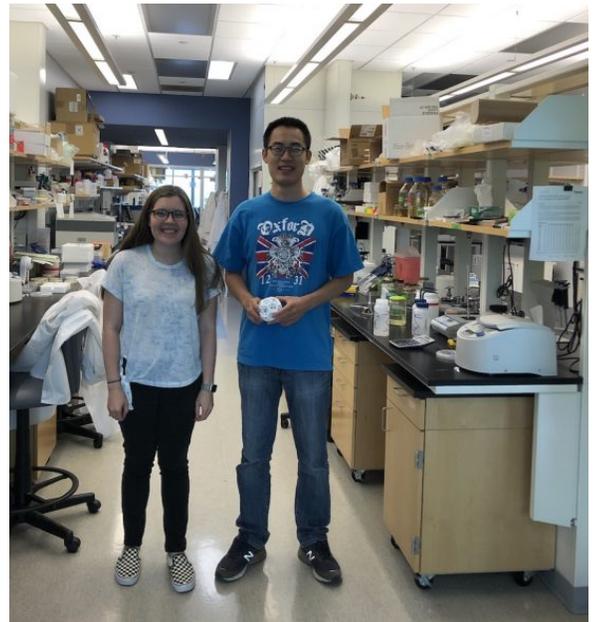
Leading up to the 10 week 2019 Sackler/National Science Foundation Research Experience for Undergraduates: Interdisciplinary Research Training Across Biology, Physics, and Engineering Program, Barrs felt a healthy combination of anxiety and excitement. "I was feeling very excited to participate in the program, but I was a bit nervous to be starting work in an Ivy League environment with researchers at the absolute top of their fields and in labs with state of the art equipment," Barrs said. "I was honestly terrified the first two weeks that I would accidentally break something expensive."

Throughout her time at Yale, Barrs adhered to her daily schedule, which was always anything but dull. Her time spent both in the classroom and in the lab conducting experiments, preparing cell cultures and working directly with yeast cells, dye, and a spectrophotometer allowed her to develop and refine some very valuable skills. Her research explored a new method of measuring exocytosis and endocytosis rates through the use of lipophilic dye fluorescence in fission yeast and contributed to the Berro Lab's overall research goal of unraveling how the molecular machinery of clathrin-mediated endocytosis generates forces to deform the plasma membrane and also how this machinery then senses membrane tension and adapts to it. "All of the aspects of this research combined to challenge and expand my communication and research skills," Barrs explained. "My encounters with machine errors, issues with cell culture, and plain bad luck also helped me to develop a more positive and determined attitude toward solving problems."

"All of the aspects of this research combined to challenge and expand my communication and research skills," Barrs explained. "My encounters with machine errors, issues with cell culture, and plain bad luck also helped me to develop a more positive and determined attitude toward solving problems."

Barrs also quickly discovered the welcoming environment of the program seen in both its leaders and participants. "I always felt welcome and had many interactions with professors, post doctoral fellows, graduate students and undergraduate students. Overall, the environment I worked in and the people I worked with inspired me to be purposeful and meet my research goals," Barrs said. While the work in the lab was often long and strenuous, Barrs was able to connect with the other program participants and form new friendships based on common interests both related and unrelated to the subject of their program.

Due to the specifics of this research project, Barrs was able to cultivate an interdisciplinary mindset that she will carry with her back to Georgia Southern and beyond. This focus on interdisciplinary studies also ties in



*Katherine Barrs with Dr. Yuan Ren, one of her summer research mentors at Yale.*

with Barrs' future plans as she wants to pursue a PhD in a combination of biology, chemistry, and mathematics. "The training I gained in the program has helped me feel more confident in my skills and previous experiences being sufficient to succeed in graduate school. Overall, I have a better understanding of what discipline and type of research I am interested in pursuing through graduate school," Barrs said.

Her experiences working alongside students and faculty during this training at Yale University helped her improve her professional and academic credentials and increase her confidence in her own skills. Barrs now has no doubt in her ability to succeed in her research endeavors and achieve her professional and personal goals.

Posted in [Uncategorized](#)