CHARLES LAFITTE FOUNDATION PROGRAM IN PSYCHOLOGICAL RESEARCH AT DUKE UNIVERSITY

2019-2020

IMPACT REPORT

Duke UNIVERSITY
PSYCHOLOGY & NEUROSCIENCE

CHARLES LAFITTE™ FOUNDATION

A WORD FROM LEADERSHIP

August 6, 2020

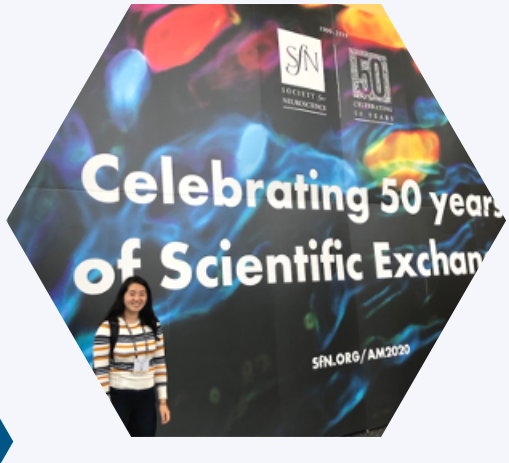
Our department – like Duke and the world – has been buffeted by all of the upheaval of the past few months. In such difficult times, when so many members of our community are suffering through a worldwide pandemic that exacerbates the systemic inequities in our society, the support from the Charles Lafitte Foundation has provided new opportunities for action. Our students and faculty have sparked new projects on topics from how COVID changes attitudes toward risks to how identity shapes individual social behavior. They have risen to the challenge of the times by doing research that matters – not only for the advancement of science, but also for the advancement of our society. We are extraordinarily grateful that the Foundation believes in the value of that research.

Scott Huettel, *Chair, Department of Psychology and Neuroscience*

UNDERGRADUATE SNAPSHOT BY THE NUMBERS

49

Undergraduate Students Attended Conferences



100

Research & Travel Grant Applications Received

18

URS Matching Research Grant Applications

20

Students Presented Research at Conferences

28

Small Research Grant Applications

UNDERGRADUATE AWARDS BREAKDOWN

TRAVEL GRANTS

• 100 applications
• 40 students attended conferences
• 15 students presented research
• Majors: Psychology, Neuroscience, Linguistics, Neuroanthropology, Global Health, Statistical Science, Evolutionary Anthropology
• Conference Cities: Boston, Chicago, Honolulu, Johnson City, TN, New Orleans, Phoenix, and San Francisco

SMALL GRANTS

• 28 applications
• Psychology and Neuroscience students
• Direct funding: Mechanical Turk (Amazon MTurk), family-child lab visits, tissue sample testing, Qualtrics surveys, observational studies

URS MATCHING GRANTS

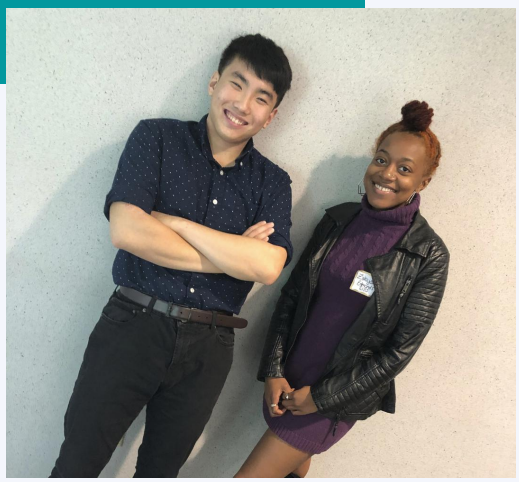
• 18 applications
• Psychology, Neuroscience, Chemistry, Neuroanthropology
• Experimental studies, observational studies, Mechanical Turk (Amazon MTurk)

LOCAL CONFERENCE AWARDS

• State of North Carolina Undergraduate Research & Creativity Symposium and North Carolina Psychiatric Association Annual Meeting
• 9 students attended
• 5 students presented

"I am immensely grateful to have had the opportunity to attend the North Carolina Psychological Association (NCPA)Conference. I attended a session about surviving graduate school as a diverse student and I found that very rewarding."

- Zakiyah Edmonds-Sills, Psychology Undergraduate Student

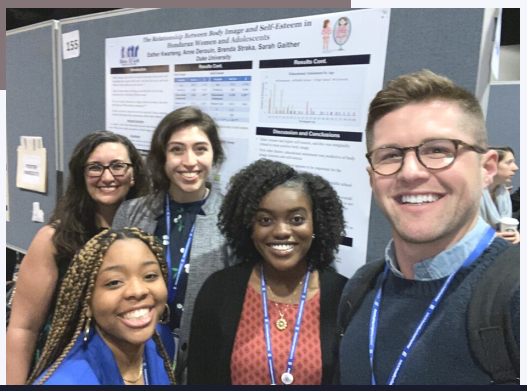


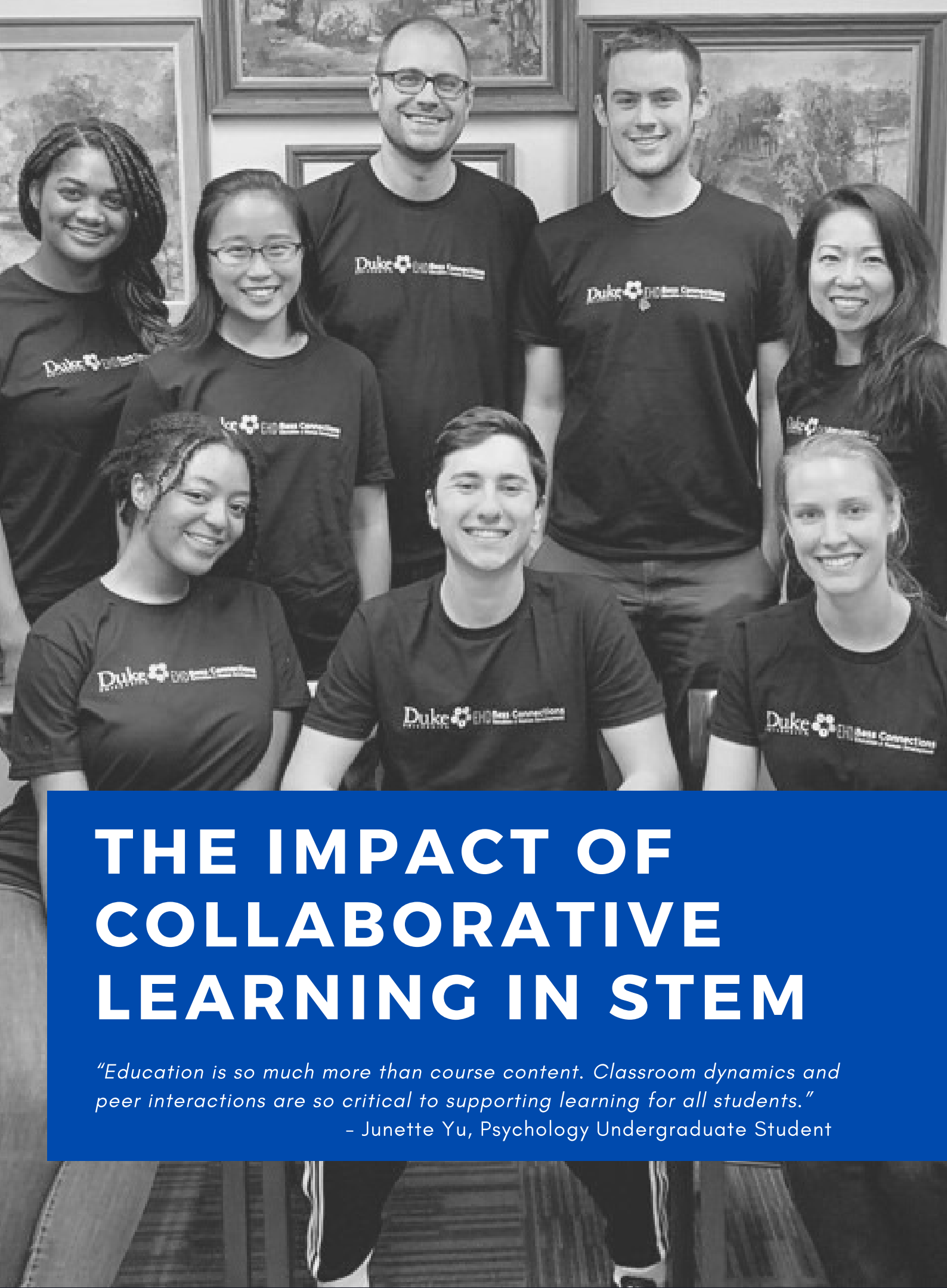
"SfN's Neuroscience 2019 was the second, and largest, scientific conference I have ever attended. I plan on going to graduate school after I complete my studies at Duke, and visiting the [conference's] graduate school fair helped me gain a better sense of the type of PhD program I would like to apply to."

- Sofia Li, Neuroscience Undergraduate Student

"The opportunity to travel to New Orleans to attend the Society for Personality and Social Psychology (SPSP) Convention was an incredible experience. The most rewarding aspect of this trip was that I presented my own independent research that I conducted during the summer of 2019 in Camasca, Honduras."

- Esther Kwarteng, Psychology Undergraduate Student





THE IMPACT OF COLLABORATIVE LEARNING IN STEM

"Education is so much more than course content. Classroom dynamics and peer interactions are so critical to supporting learning for all students."

– Junette Yu, Psychology Undergraduate Student

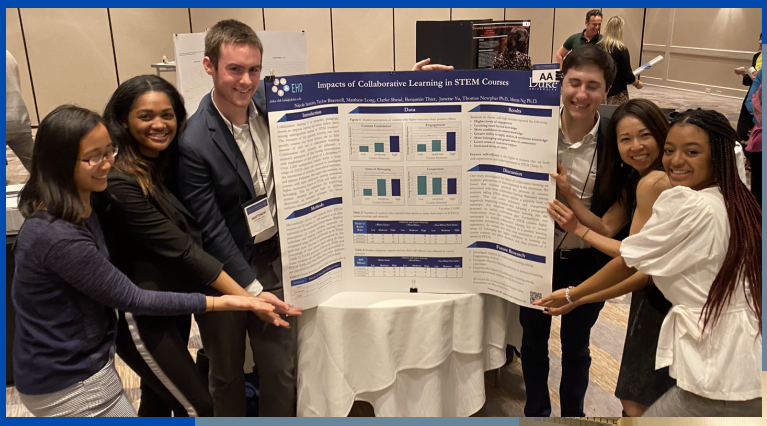
COLLABORATIVE LEARNING IS EVIDENCE-BASED INSTRUCTION

Collaborative learning is an evidence-based instructional strategy that deepens student learning by facilitating engaging classroom discussions among students. These cooperative activities are at the core of active learning, a pedagogical method whereby students perform activities for the purpose of discovering, processing and applying information. While active learning increases performance for most students in STEM fields, underrepresented students show the largest positive effect; these teaching interventions completely close the performance gap between first generation college students and continuing generation students. The interactive and interdependent nature of active learning helps increase the sense of community in the classroom: an effect that may be especially important to the success of at-risk student populations.

"These teaching interventions completely close the performance gap between first generation college students and continuing generation students."

"With the generous funding from the Charles Lafitte Foundation, we were able to form the Duke Team-Based Learning Lab. In year one, the lab published its first paper comparing Team-Based Learning to active learning. The lab also mentored five undergraduate students to research the impacts of collaborative learning on student motivation and self-efficacy. The team traveled to San Diego, CA to present the findings at a national teaching conference."

- Dr. Minna Ng & Dr. Tom Newpher, BASS Advisors, Duke Team-Based Learning Lab



IMPROVING RETENTION RATES FOR STEM STUDENTS

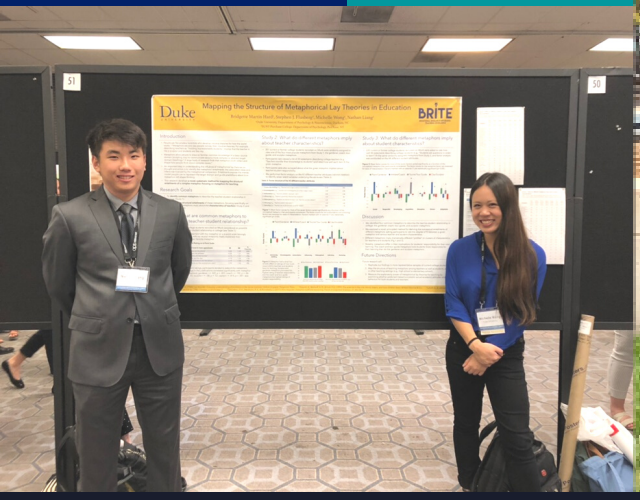
This project investigated the impacts of collaborative learning on course-related behaviors and enthusiasm for course content in undergraduate STEM classrooms at Duke University. Undergraduate team members identified teaching practices in STEM classrooms that improve retention rates for all students, close achievement gaps, generate enthusiasm for course content and promote equity in the classroom.

LAFITTE FUNDING SUPPORTS FACULTY-STUDENT RESEARCH AND RELATIONSHIPS WHILE FOSTERING INVESTIGATIVE DISCOVERY

"We conducted 15 experiments with 1300 participants, both here and abroad, and obtained exciting results using new methods with implications for both cognitive science and global health. All the work was accomplished with a curious, hardworking group of students, many of whom had no previous research experience, but who learned new skills like research design, data analysis, and reporting. Our team went to Montreal where we presented a paper at the Society for Computers in Psychology (SCiP) and attended sessions at the Psychonomic Society convention. It's been a great adventure for us all to work collaboratively on this project this year."

– **Dr. Ruth Day**, Faculty Member

RESEARCH CONNECTS DUKE PSYCHOLOGY & NEUROSCIENCE'S BRIGHT AND BRILLIANT COMMUNITY



COVID-19 RESPONSE

Special Call to Fund Pandemic-Related Research

MARCH 25, 2020

In response to a drastically altered campus research climate, the Duke Department of Psychology & Neuroscience redirected Lafitte funds previously designated for travel (now prohibited) to support small research projects related to the COVID-19 pandemic.

The pandemic raised important questions about public health messaging, the spread of misinformation, loneliness, resilience, remote learning, and stigma and prejudice.

10 graduate students and postdoctoral fellows were awarded special funding to conduct innovative research in an impossibly difficult time.

Characterizing Individual Differences in Goal Pursuit

"My project is ongoing; its focus is understanding reasons that people sometimes give up their goals, despite having motivation for them and despite being skilled in self-control. The pandemic and this new wave of civil rights protests have caused so many of us to shift how we spend our time and how our goals are prioritized.

I'm hopeful that my work will use insights from this unusual time in history to contribute to a more accurate and nuanced theoretical understanding of deferred and abandoned goal pursuits."

- Hannah Moshontz, PhD Student

JUNETEENTH 2020

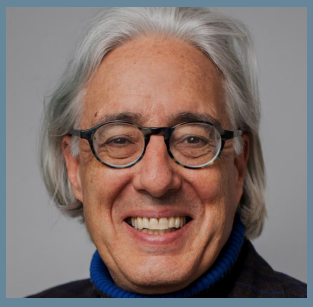
Special Call for Psychological Research Awards Relating to Identity, Diversity, Inclusion, Equity, and Thriving

In June 2020, the Department of Psychology & Neuroscience formed a Task Force on Diversity, Inclusion, and Climate as a departmental commitment to anti-racism work.

The first act of the newly formed Task Force was to help redirect funds previously designated for travel (now prohibited due to COVID-19) to support small research projects related to identity, diversity, inclusion, equity, and thriving. The faculty facilitators of the Task Force composed the department-wide call for proposals that frame or address issues disproportionately experienced by communities of color.

Research topics that fit within the scope of this call include: identity, diversity, culture, stereotypes, SES, disparities, structural racism in academia, resilience, environmental justice, effects of identity and diversity on decision making, optimizing inclusion in the classroom or among teams, development in minority populations, interpersonal relationships, cultural socialization, mental and physical health of marginalized individuals, interventions related to diversity, inclusion, equity, and thriving, stressors, toxins, nutrition, or housing resources.

FACULTY SEED GRANTS



Epigenetic Approaches to the Study of Accelerated Aging

DR. AVSHALOM CASPI

Global Side Effects of Prescription Drug Ads on Cognition and Action

DR. RUTH DAY

Crossing the Bridge Between Laboratory-Based and Real-World Controlled Attention and Mind Wandering in a Driving Simulator

DR. TOBIAS EGNER &
DR. PAUL SELI

Mobile EEG as a Departmental Resource to Support Real-World Developmental Neuroscience at Duke

DR. MICHAEL GAFFREY

Social Identity and Mental Health: Minimizing Barriers to Positive Well-Being in College Settings

DR. SARAH GAITHER &
DR. NANCY ZUCKER

Do Intuitive Theories About Teaching Shape Academic Choices and Responses?

DR. BRIDGETTE MARTIN HARD

Launch of Team-Based Learning Lab

DR. THOMAS NEWPHER &
DR. MINNA NG

Using Neuroimaging to Optimize Mobile Interventions Targeting Healthy Brain Aging

DR. GREGORY SAMANEZ-LARKIN

Augmenting Creative Problem-Solving in the Hypnagogic Dream State

DR. PAUL SELI