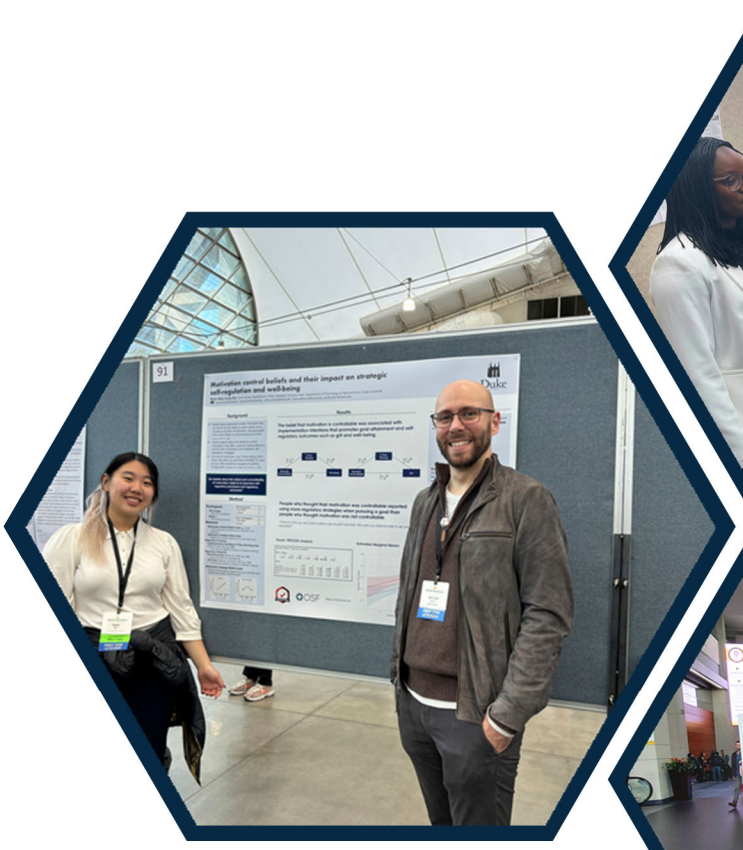
2023-2024

Impact Report

CHARLES LAFITTE FOUNDATION PROGRAM IN PSYCHOLOGICAL & NEUROSCIENCE RESEARCH AT DUKE UNIVERSITY



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A Note from Our Chair

I am in a retrospective frame of mind as I write this note, as it is the last day of my term as Department Chair. When I think back over my time in the Chair's office (and my time before that as Associate Chair), it is striking what a difference the Lafitte funding has made to research in Psychology and Neuroscience. It has been transformational to be able to send so many students to conferences, for example – Duke Psychology and Neuroscience undergraduate majors now routinely plan on traveling to and presenting at national meetings, something that was achieved by only a few trainees prior to the generous gift from the Lafitte Foundation. Undergraduates now hear cutting edge research at conferences, oftentimes before the results are published in traditional journals, exciting their passion for research and informing the studies they do. Students pursuing Graduation with Distinction (GWD) collect their data knowing that they will have the opportunity to share these data beyond Duke. Many of these same students also apply for and receive Lafitte research funds, allowing them to pay participants and collect data more quickly than if they had to rely on the free participants in the undergraduate subject pool. This same funding allows them to test subjects from populations that they normally would not have access to, sans research funds. In short, the Lafitte funding has changed the traditional capstone undergraduate research experience into something more akin to what a graduate student experiences – in turn making Duke undergraduates more prepared when they apply to graduate or professional school, and arming them with critical thinking and data skills relevant to a wide range of professions. A similar transformation has happened for our graduate and postdoctoral trainees; for example, the funding guidelines encourage them to mentor undergraduates and treat them as apprentices, skills they will need when they are eventually PIs of their own labs. I am confident that I speak for the whole department when I say that the support has made a real difference, and that we are very grateful for the continued support.

Elizabeth J. Marsh
Professor and Chair
Department of Psychology & Neuroscience, Duke University

We THANK YOU
for your continued support of our programs!

By the Numbers:

22 Undergraduate Travel Awards

39 Graduate Travel Awards

13 Undergraduate Research Grants

17 Graduate Research Grants

6 Local/Virtual Conferences

With generous support from The Charles Lafitte Foundation, the Department of Psychology & Neuroscience continues to fund innovative research engaging students at all levels, from undergraduates to graduate students and postdoctoral fellows. Funding in 23-24 primarily took two forms: small research grants to directly support student projects and awards to allow students to attend and present their own work at national conferences.

Funding applications were reviewed by a committee of P&N faculty members and were judged on: overall scholarly merit, innovativeness, anticipated impact upon applicants' research experiences and/or general experiences at Duke, and feasibility for completion by specified deadline. For the awards to graduate students, priority was given to projects and travel that involved undergraduates.

Undergraduate Spotlight

The undergraduate spotlight this year features Psychology major Caimiao Liu, ’24. Liu is the 2023-2024 recipient of the Jerome S. Bruner Award for Excellence in Undergraduate Research. This award acknowledges seniors at Duke University who exhibit excellence in research activities, intellectual curiosity, and the potential for future scholarly endeavors. Notably, Liu’s senior research was supported by two grants from the Lafitte Foundation, including a travel grant to attend the annual meeting of the Society for Personality and Social Psychology. At that meeting she presented her research on cross-cultural differences in feelings of love and gratitude; a Lafitte research award helped support the collection of the data presented at this meeting.

“this grant provided invaluable support that allowed me to showcase my latest research and connect with scholars with similar interests…”

Liu’s undergraduate thesis, titled “Cross-Cultural Differences between Love and Gratitude,” consisted of a two-part study comparing the experiences of love and gratitude across three distinct regions—North America, Latin America, and East Asia. In addition to presenting her work in Denver, the first part of her study is now under review at a peer-reviewed journal. Liu expressed deep gratitude for the grants, writing that “this grant provided invaluable support that allowed me to showcase my latest research and connect with scholars with similar interests… Engaging in dynamic discussions with experts in the field, I received constructive feedback that has significantly shaped the trajectory of my ongoing thesis work.”

Undergraduate Spotlight (cont.)

As a first-generation college student, Liu lacked the parental guidance that many of her fellow classmates have benefited from. Being able to attend a national conference gave her the opportunity to receive guidance and advice about how to navigate toward postgraduate higher education. When describing these opportunities, Liu wrote that "I attended a student mentor lunch program where we talked about navigating the hidden curriculum at graduate schools. At the session, I asked questions and received helpful advice about work-life balance and maintaining a good relationship with one's advisor." Liu added that "…This experience proved instrumental in helping me make a more informed decision about my graduate school programs."

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Faculty Spotlight

Generous funding from the Charles Lafitte Foundation Program in Psychological & Neuroscience Research at Duke University has enabled a transformative initiative led by **Eve Puffer**, Pamela and Jack Egan Associate Professor of Psychology & Neuroscience. Dr. Puffer is a clinical psychologist who focuses on community-based mental health interventions. Much of her research focuses on addressing mental health disparities in rural Kenya, where different cultural norms and resources necessitate changes from traditional mental health interventions.

In work supported by a Lafitte Faculty Seed Grant and in collaboration with the Duke Global Health Institute (DGHI), Puffer takes a unique approach in Kenya, training community members as non-specialist providers to deliver effective mental health programs. This approach is essential given that access to professional care is limited in the area. Working closely with local communities near Eldoret, her team engages directly with village elders and religious groups to tailor interventions that resonate with local cultural contexts.

"Our goal is to empower children and caregivers to thrive within safe, cohesive, and supportive families," Puffer explained, emphasizing the need to address family and community-level mental health risk factors.

Central to their strategy is the "Tuko Pamoja" ("We are together" in Swahili) model, a comprehensive family intervention approach. The model consists of two tiers: Tuko Pamoja Family Days and Tuko Pamoja Home. Tuko Pamoja Family Days gather families in familiar social settings, such as religious congregations, for group-based sessions facilitated by trained community members. These sessions focus on enhancing communication, problem-solving, and coping skills through interactive activities and discussions.

For families needing more intensive support, Tuko Pamoja Home leverages trained lay providers to offer counseling delivered in-home. The goal is to empower families to collaboratively address challenges affecting their relationships and well-being.

“The Lafitte grant has afforded the opportunity to place both tiers together this summer in Kenya, to expand services and understand how the two tiers complement each other,” Puffer said. “I recently returned from Kenya, and an undergraduate student is traveling to Eldoret in a couple of weeks to help support the project.”

Dr. Puffer’s comment highlights how the research team includes many Duke students. Both Psychology graduate students and undergraduates have helped to refine the intervention, design research protocols, and conduct fieldwork in Kenya.

Thanks to Lafitte funding, Puffer's team has expanded their impact, significantly increasing participation among Kenyan families. The program's success has led to local adaptations, including in North Carolina during the Covid-19 pandemic, demonstrating its versatility and relevance in diverse settings.

"We are optimistic about scaling up this model to benefit more families globally," Puffer shared. "Our ongoing evaluations will determine its effectiveness and potential for broader implementation."

The journey from initial seed funding to impactful interventions in Kenya and beyond underscores the transformative potential of collaborative research and community-driven approaches to enhance family well-being and mental health outcomes worldwide.

“The Lafitte grant has afforded the opportunity to place both tiers together this summer in Kenya, to expand services and understand how the two tiers complement each other,”

UNDERGRADUATE RESEARCH

Thanks to the generous support from the Charles Lafitte Foundation, P&N offers two different research awards to undergraduates; both provide Psychology and Neuroscience majors with up to $400 to support their research. Recipients use their awards for payments to human subjects, software, and experimental materials (e.g., toys for developmental psychology studies, animal cages for neuroscience work). Many undergraduate recipients are enrolled in Graduation with Distinction Honors (GWD), where they develop their own research proposals, design and conduct research studies, and defend the work – including a public oral defense, a written thesis, and a presentation of their findings in a poster presentation. Below are the names and research project titles of this year's award recipients.

Awardee	Project Title
Jeslyn Brouwers	How to Help Student ACE Group Projects
Austin Christley	Two-Stage Moral Licensing
Catherine Flanagan	Effect of Perseverative Processing on Memory
Amy Fulton	Activity of Intracellular Mediators in Post-TBI Epilepsy with Inflammatory Response
Imani Hall	Generation of Nuclear-Localized Rabies Virus for Dissection of Adult Cortical Circuits
Natalie Lewis	The Experience of Burnout in College

Caimiao Liu	Cultural Insights into Positive Emotions: Love and Gratitude across Three Nations
Baldwin Ma	Living the “Rich” Life: Exploring Psychological Richness in College
Ava Raffel	Environmental Decision Making
Emily Sandberg	Exploring Canine Sleep-Wake Cycles and Implications for Temperament Development: A Longitudinal Comparison
Paige Sevchik	Opening the Gap: Curiosity and Prediction Error Perpetuate Information Seeking and Influence Memory
Angie Xie	Effects of Perseverative Thinking on Memory

GRADUATE RESEARCH

Since its inception, over 100 research grants have been made to Duke Psychology and Neuroscience graduate students and postdoctoral fellows. The award selection process is highly competitive, with priority given to applicants conducting empirical projects that include undergraduate students on the research team. This year, seventeen research awards were granted and 35 undergraduates were directly involved in the research and gained experience with subject recruitment, data management, programming (Matlab, Python, etc.), behavioral data collection, data analysis, and scientific writing. Below are the names and research project titles of this year's award recipients.

Awardee	Project Title
Lucas Bellaiche	Assessing the Generation of Emotion Regulation Techniques with Divergent Thinking
Charles Davis	When Narratives Take Us to Different Worlds, Do We Return Changed by the Story?
Jospeh Diehl	Ecological Momentary Assessment of Mind-wandering and Mood in College Student
Matt Hanna	Sex, Gender, and Sexual Orientation Differences in Biological Aging
Kirby Lam	Cultural Differences in Judgments of Masculinity and Social Norms
Jiayue Liu	Pre-stimulus EEG as an Indicator of Perceptual Difficulties in Noise

Paul McKee	Qualitative and Quantitative Evidence of Motivation of Moral Action
Esha Naidu	Identity Integration and Flexible Thinking
Daniel Parr	The Role of Affect In Learning and Decision-Making
Joyce Park	Authoring as a Learning Strategy
Anna P. Smith	Spontaneity of Memory Retrieval in Abstract Art Viewing
Jane Rothrock	The Influence of Negative Mood and Perseverative Thought on Memory Specificity
Jessa Stegall	Exploring Children's Motivation to Pay a Cost to Follow Rules
Sarah S. Arthur	Developing an Inclusive and Person-Centered Conceptual Model and Measure of Postpartum Sexual Well-Being
Mohammad Wiswall	Universally Asian, Distinctly Stereotyped? How Skin Tone Variation Within the Asian Diaspora Genders Stereotypes
Rachael Wright	Emotion Regulation Learning and Strategy Choice
Skyler Wyly	Motivation Control Beliefs and Their Impact on Strategic Self-Regulation and Well-Being

Undergraduate Conference Travel

This year, P&N awarded 28 travel awards to undergraduates; the students traveled to 8 national and 6 local conferences. A total of 14 unique posters were presented across these 14 conferences. These conferences offer great opportunities for undergraduates to showcase their work, talk with fellow researchers and peers in the field and learn more about research opportunities. Attending posters sessions during these conferences enhances their progression toward future research and career goals.

Undergraduate Conferences

American Heart Association International Stroke Conference
American Society for Biochemistry and Molecular Biology
Biomedical Engineering Society
Cognitive Development Society
M4 Mindfulness Mechanisms & Methods Meeting
Psychonomic Society
Society for Industrial and Organizational Psychology
Society for Neuroscience
Society for Personality and Social Psychology
Society of Southeastern Social Psychologists
Spine Care Conference

Local/Virtual Conferences

Duke Neurology Symposium
GliaCamp Rigmor House
North Carolina Psychological Association Undergraduate Conference

Graduate Conference Travel

This year, P&N successfully sent 39 graduate students across two continents to attend 17 different conferences. Such conferences offer invaluable opportunities for graduate students to access the latest cutting-edge research in their fields. They serve as platforms for students to present their work, network, and explore potential collaborations. These graduate students were accompanied by 21 undergraduate students; the graduate mentors guided the undergraduates through the conferences, helping them select talks to attend, introducing them to researchers, and explaining the science to them.

Graduate Conferences

Alzheimer's Association International Conference
Association for Behavioral and Cognitive Therapies
Cognitive Developmental Society
Cognitive Neuroscience Society
Cognitive Science Society
European Society for Philosophy and Psychology
Gerontological Society of America Annual Scientific Meeting
Global Mental Health Research without Borders
International Society for Research of Emotion
M4 Mindfulness Methods Conference
Object Perception, Visual Attention, and Visual Memory
Psychonomic Society
Society for Neuroscience
Society for Personality and Social Psychology
Society for Philosophy and Psychology
Society for the Psychological Study of Social Issues
World Small Animal Veterinary Association

In Their Words

Psychology Graduation with Distinction class of '24 at their Poster and Presentation event. Twelve of these students utilized Lafitte Grants to support their research projects.

"I'm so grateful to receive this grant., which enabled me to attend and present at the American Heart Association International Stroke Conference in Phoenix AZ. I was the only undergraduate that I saw presenting and I got great feedback from other attendees that they enjoyed and were impressed by my presentation."

- Amy Fulton

Research on hydrogel in moyamoya disease

"I'm deeply thankful for the trust and support shown by the Lafitte Foundation. Your investment in my education and professional development has not only contributed to my growth as a budding clinical psychologist but also reinforces my commitment to making manful contributions to the field. I look forward to continually embodying the values of excellence and innovation that the Lafitte Foundation champions."

- Yanyan Shan

"The Properties of Involuntary and Voluntary Autobiographical Memories in Patients with Depression and Healthy Individuals"

"The Society of Southeastern Social Psychologists conference was my first psychology conference and was an incredibly enriching experience that will inform my future research. Without the Charles Lafitte Foundation Grant, the opportunity to further my psychology research would not have been possible, and I am very grateful."

- Sejal Mayner Patel

"Unveiling Perception: A Metastereotype Analysis of Latino and South Asian Communities"

"I'm incredibly grateful to the Charles Lafitte Foundation for allowing me to attend the largest and most prestigious meeting for neuroscience research. I was able to practice and develop my presentation skills to a vast audience of neuroscientists, learn from the experts in the field of cell type characterization, and hear about the intersection of bench techniques with technology to better study the brain."

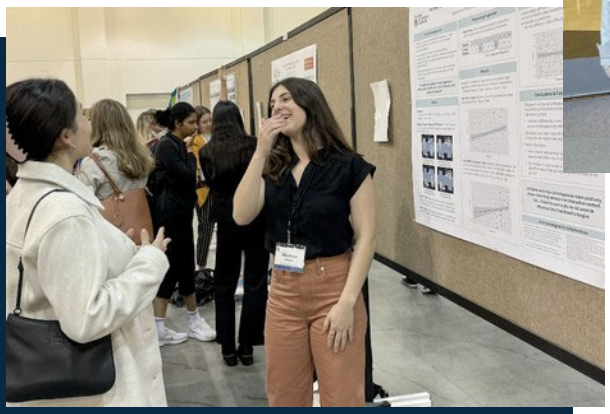
- Peyton Thompson

"Whole net-work remodeling following interferon precursor transplantation reduces seizures in an in vitro organotypic model"

"Thanks to the Lafitte Conference Grant, I had the privilege of attending DiscoverBMB...The experience was transformative, offering a rich tapestry of seminars and workshop that expended my knowledge and honed my skills."

- Sofia Guerrero

"A novel link between mitochondrial energy metabolism and ubiquitin conjugase Rad6"

Right: Photo of Tomasello Lab at the Cognitive Development Society (CDS) Conference, Pasadena, CA

Bottom: Photo from poster session at the CDS Conference