

FALL 2022

# — The DART — NEWSLETTER

Updates from the Diversity in Addiction Research Training Program at  
the Medical University of South Carolina

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## DART GRANT RENEWAL (YEARS 17-22)

The Diversity in Addiction Research Training (DART) program, formally known as the Drug Abuse Research Training program, is funded by the National Institute on Drug Abuse (NIDA R25 DA020537; PIs: Sudie Back & Kathleen Brady). DART provides mentored, structured research training during early stages of the academic "pipeline" to increase the number and diversity of physician-scientists and clinical researchers in the field of addiction and mental health. DART includes a summer research fellowship program for undergraduate, graduate and medical students, a residency research track, and a flex rotation for medical students. Over the next five years, DART is excited to expand the program's reach by partnering with residency programs across the country and enhancing research training focused on opioid use disorders, health disparities, and remote/virtual clinical trials. In addition, DART is collaborating with NIDA's Office of Diversity and Health Disparities (ODHD) to enhance program curriculum with presentations from program staff. Our goal is to equip DART trainees with the resources and knowledge needed to conduct rigorous research, guided by best practices in health disparities research and informed by historical and current structural racism to eliminate inequities in health care and improve mental health treatment outcomes.

# DART ADVISORY BOARD MEMBERS

The DART Advisory Board is composed of multidisciplinary and highly accomplished researchers, educators, and leaders at MUSC and partnering institutions across the country. Each member brings exceptional talent and diverse experiences, skill sets, and viewpoints to the program. DART Advisors also serve as Program Faculty and contribute by presenting DART seminars and/or providing mentorship and guidance to DART trainees. DART Advisors represent a diverse group of professionals with substantial experience and leadership in health disparities and minority health research in addictions and mental health. We are honored to work with this outstanding group of scientists, clinicians, and leaders in the field!



**Nassima Ait-Daoud  
Tiouririne, M.D.**  
University of Virginia



**Kathleen Burlew,  
Ph.D.**  
University of Cincinnati



**Michael de Arellano,  
Ph.D.**  
MUSC



**Deborah Deas,  
M.D., MPH**  
University of California,  
Riverside



**Sherece Fields,  
Ph.D.**  
Texas A&M



**Shelly Greenfield,  
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Harvard Medical School



**Denise Hien,  
Ph.D.**  
Rutgers University



**Edward Kantor,  
M.D.**  
MUSC



**Debra Kaysen,  
Ph.D.**  
Stanford University



**Petros Levounis,  
M.D., M.A.**  
Rutgers Medical School



**Teresa Lopez-  
Castro, Ph.D.**  
City College of New York



**Antonio Morgan-  
Lopez, Ph.D.**  
Research Triangle Institute



**Veronica Perez,  
Ph.D.**  
University of California,  
San Diego



**Lesia Ruglass,  
Ph.D.**  
City College of New York



**Lissette Saavedra,  
Ph.D.**  
Research Triangle Institute



**Richard Schottenfeld,  
M.D.**  
Howard University



**Vanessa Spearman,  
M.D.**  
Medical College of  
Georgia



**Carmen Zorrilla,  
M.D.**  
University of Puerto Rico

# DART Residents



## Returning Residents



### **Chris Austelle, M.D.**

Mentored by Mark George, M.D., Tom Uhde, M.D., Baron Short, M.D., MSCR and Bashar Badran, Ph.D.  
Affiliation: MUSC



### **Daniel Hashemi, M.D.**

Mentored by Kevin Gray, M.D.  
Affiliation: MUSC



### **Anna Ehrhardt, M.D.**

Mentored by Lisa McTeague, Ph.D. and Suzanne Kerns, M.D.  
Affiliation: MUSC



### **Manish Karamchandani, M.D.**

Mentored by Robert Malcolm, M.D. and Jennifer Jones, M.D.  
Affiliation: MUSC

## New Residents



### **Emily Amador, D.O.**

Mentored by Jennifer Jones, M.D.  
Affiliation: MUSC



### **Kanya Nesbeth, M.D.**

Mentored by Richard Schottenfeld, M.D.  
Affiliation: Howard University



### **Andrew Legan, M.D.**

Mentored by Nassima Ait-Daoud Tiourine, M.D.  
Affiliation: University of Virginia



### **Michael Seidman, M.D.**

Mentored by Mark George, M.D., Lisa McTeague, Ph.D., Federico Rodriguez-Porcel, M.D., and Parneet Grewal, M.D.  
Affiliation: MUSC



### **Adam Mullet, M.D.**

Mentored by Benjamin Kalivas, M.D.  
Affiliation: MUSC



### **Yushokia Woodford, M.D.**

Mentored by Richard Schottenfeld, M.D.  
Affiliation: Howard University

## Expanding Residency Training to Partner Institutions

DART is proud to partner with national residency training programs to grow and enhance research training and networking opportunities. The national DART Advisory Board will aid in promoting this growth. During the first year, DART has welcomed three new residents to the program from Howard University and the University of Virginia. Over the next five years, DART will partner with additional residency training programs across the country to broaden participation and elevate addictions research. We look forward to these new connections!





# DART SUMMER RESEARCH DAY

The 2022 Summer Fellows presented the culmination of their work at the DART Summer Research Day on July 29th, 2022

## **Examining Reproductive Healthcare Utilization among Those Who Use Substances**

Presented by Madison P. Grant

Mentored by Julianne Flanagan, Ph.D. and Jasara Hogan, Ph.D.

## **Relationship Between Perceived Stress & Alcohol Related Problems in Couples that Identify as White or Black**

Presented by Amber M. Williams, MSW

Mentored by Julianne Flanagan, Ph.D. and Jasara Hogan, Ph.D.

## **Motor Activated Auricular Vagus Nerve Stimulation (MAAVNS) Improves Motor Kinematics in Stroke Patients with Upper Extremity Deficits**

Presented by John H. Robinson

Mentored by Bashar Badran, Ph.D.

## **Validation of FosTrap Technology in an Animal Model of Binge Alcohol Drinking**

Presented by Andrew de Arellano

Mentored by Jen Rinker, Ph.D.

## **Examining the Association Between Alcohol Demand and Alcohol-Related Consequences in Adolescents**

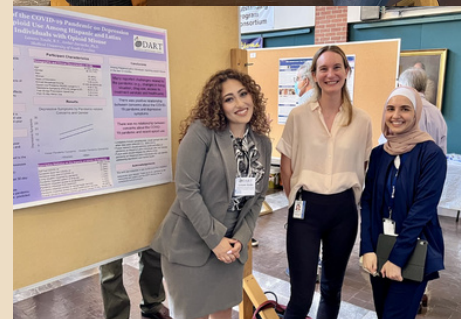
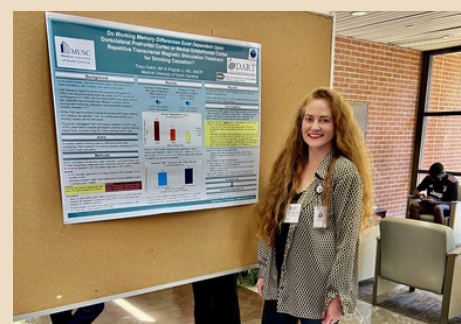
Presented by Helen Liu, BS

Mentored by Lindsay Squeglia, Ph.D.

## **Identifying High Priority Research Needs for Acetaminophen Use among Black/Hispanic Populations with Opioid Use Disorder and Liver Disease**

Presented by Autumn Barnes, BA

Mentored by Amber Jarnecke, Ph.D.





# Keynote Address

## **Addiction in LGBTQ+ Communities and Crystal Methamphetamine**

presented by  
**Petros Levounis, M.D., MA**

Dr. Levounis is President of the American Psychiatric Association (APA). He is Professor and Chair of the Department of Psychiatry and Associate Dean for professional development at Rutgers Medical School. Dr. Levounis is a leader in addiction and LGBTQ+ mental health.



### **Do Working Memory Differences Exist Dependent upon Dorsolateral Prefrontal Cortex or Medial Orbitofrontal Cortex Repetitive Transcranial Magnetic Stimulation Treatment for Smoking Cessation?**

Presented by Tracy D. Dubin, MA  
Mentored by Xingbao Li, M.D., MSCR

### **Ethnoracial Effects in Neural Reactivity to Alcohol Cues in Comorbid PTSD and Alcohol Use Disorder**

Presented by Pearl Ayiku  
Mentored by Jane Joseph, Ph.D.



### **Examining Racial, Ethnic, and Sex Differences as Predictors of Cannabis Use Disorder Treatment Retention**

Presented by Isabeau G. Brathwaite-Burnett  
Mentored by Erin McClure, Ph.D. and Rachel Tomko, Ph.D.

### **Disparities in Access to Pain Rehabilitation Programs for Patients with Medicaid**

Presented by Brigette K. Flores  
Mentored by Kelly Barth, D.O.

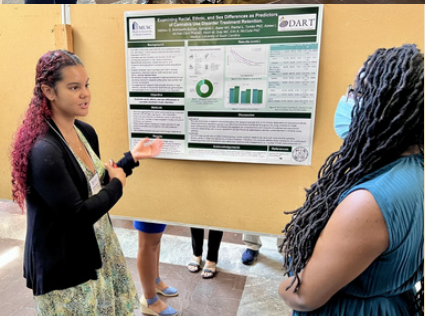


### **Default Mode Network Resting-state Functional Connectivity in Individuals with Bipolar Disorder and Co-occurring Alcohol Dependence: Results from a 2x2 Factorial Design**

Presented by Jade de Araújo, BS  
Mentored by Will Mellick, Ph.D.

### **Impacts of the COVID-19 Pandemic on Depression and Opioid Use among Hispanic and Latinx Individuals with Opioid Misuse**

Presented by Leeann Xoubi, BS  
Mentored by Amber Jarnecke, Ph.D.



*Thank you!*

TO THE FACULTY,  
STAFF, FRIENDS, AND  
FAMILIES WHO CAME  
TO SUPPORT THE  
SUMMER FELLOWS!

*Interested in applying or know someone who is?*

# 2023 Summer Fellowship Applications Now Open!

*DART will be hosting In-Person and Virtual Programs for Summer 2023*



APPLY NOW: [VIRTUAL](#)  
SUMMER FELLOW APPLICATION

APPLY NOW: [IN-PERSON](#)  
SUMMER FELLOW APPLICATION

**Virtual Summer Fellows are expected to participate part-time, attend weekly didactic seminars, meet regularly with their research mentor, and present at the DART Summer Research Day.**

**In-Person Summer Fellows are expected to participate full-time, attend weekly didactic seminars in-person, meet regularly with their research mentor, and present at the DART Summer Research Day.**

## Alumni Update

### Celensia Tolson, MS

2016 DART Summer Fellow  
Mentored by Eric Meissner, M.D., Ph.D.

Celensia Tolson, MS, graduated in 2017 magna cum laude from the University of South Carolina with a BS in Biochemistry and Molecular Biology and a minor in Medical Humanities, all while working in a Biochemistry lab during college. Following her 2016 DART training, she continued to collaborate with her mentor, Eric Meissner, M.D., Ph.D., and other MUSC physicians to publish their research findings. In 2020, Celensia obtained her Master's degree in Microbiology and Immunology from Georgetown University. During and after graduate school, she worked in labs specializing in research with Hepatitis Delta Virus, HIV, and Immunology. Celensia currently works as a Research Specialist at the University of Pennsylvania in the Gene Therapy Program under Dr. Jim Wilson. In the near future, she plans on pursuing a Ph.D. at Georgetown University, John Hopkins University, or the University of Pennsylvania. She also continues to strengthen her analytical skills, leadership skills, and other skills to increase her versatility while preparing for a Ph.D. program.



*Congratulations Celensia!*

# DART Faculty Feature

## Colleen Halliday, Ph.D.

DART Co-Investigator and Diversity Advocate



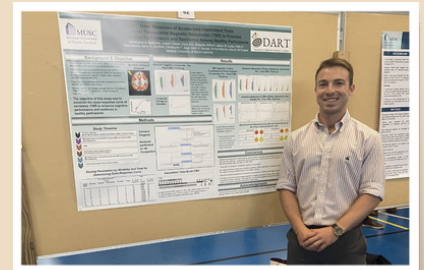
Dr. Colleen Halliday is the newest member of the DART leadership team. Her research interests broadly pertain to understanding, preventing, and addressing racial/ethnic disparities in antisocial behavior, other mental health problems, and substance use in children and adolescents. Her current research has two primary areas of focus: 1) understanding the effects of direct and vicarious racial/ethnic discrimination on youth mental health and behavior outcomes and the mechanisms these effects, and 2) examining schools as sources of racial/ethnic disparities in youth mental health and behavior outcomes as well as contexts for interventions to reduce these disparities. Dr. Halliday is currently leading as PI or Co-PI several research projects funded by the William T. Grant Foundation, National Institute on Minority Health and Health Disparities (NIMHD), and the Patient-Centered Outcomes Research Institute (PCORI).

Dr. Halliday serves as the DART Diversity Advocate, a new role on the DART leadership team. As Diversity Advocate, she will listen to concerns or issues pertaining to diversity in the DART program, help DART trainees from underrepresented backgrounds navigate sensitive issues, and collaborate with the DART leadership team to address any concerns pertaining to these areas. Please contact her at [hallidca@musc.edu](mailto:hallidca@musc.edu) if you have a diversity-related question or concern.

## Congratulations to the DART 2022 FLEX Graduates

### **Dose Response of Accelerated Intermittent Theta Burst Transcranial Magnetic Stimulation (TMS) to Promote Cognitive Performance and Resilience Among Healthy Participants**

Presented by Chris Baltimore  
Mentored by Lisa McTeague, Ph.D.

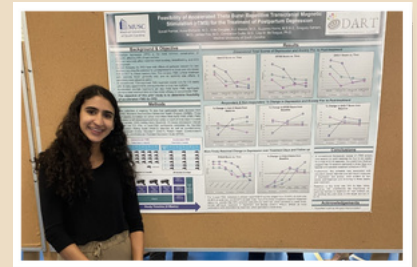


### **Literature Review of Autonomic Impairment Identified in Central Disorders of Hypersomnolence**

Presented by Jelissa Suarez  
Mentored by Thomas Uhde, M.D. and Allison Wilkerson, Ph.D.

### **An Open Label Study to Assess the Feasibility and Tolerability of Accelerated Intermittent Theta Burst Repetitive Transcranial Magnetic Stimulation for Post-Partum Depression**

Presented by Sonali Parmar  
Mentored by Lisa McTeague, Ph.D.



*Interested in applying or know someone who is?*

**2023 FLEX Research Elective at MUSC - Applications Open!**



**APPLY NOW**



# Kudos and Wins

**Julia Rodes, M.D., 2020 DART FLEX Alumna**, recently presented at the Pain Society of the Carolina's Annual Scientific Meeting in Asheville, NC. Her project during the FLEX program, titled ***Gender Differences in Pain and Interdisciplinary Pain Rehabilitation***, was a systematic literature review that discovered reported gender differences exist in outcomes of interdisciplinary pain rehabilitation programs, with women generally demonstrating greater outcomes than men. **Dr. Rodes came in 3rd place in the poster presentations.** Wonderful job presenting Dr. Rodes!



[Learn more about the MUSC Pain Rehabilitation Program.](#)

## Racial Disparities in Elementary School Disciplinary Actions: Findings From the ABCD Study

Matthew C. Fadus, MD, Emilio A. Valdes, PhD, Brittany E. Bryant, DSW, Alexis M. Garcia, PhD, Brian Neelon, PhD, Rachel L. Tomko, PhD, Lindsay M. Squaglia, PhD

Dr. Fadus and Valdes are co-first authors and Drs. Squaglia and Tomko are co-senior authors of this article.

**Objective:** Detentions and suspensions are common practices of school discipline, despite evidence that they are largely ineffective and disproportionately affect children from racial and ethnic minority backgrounds, particularly Black children, and children of lower socioeconomic status. However, few studies have examined suspension and detention rates among sex, ethnicity, and family structure (single-parent versus two-parent) compared when controlling for typical behaviors associated with detention and suspension such as nonattending symptoms, age, sex, family income, family education, family conflicts, and special education needs.

**Method:** Cross-section of 11,873 children between ages 9 and 10 years from the Adolescent Brain Cognitive Development (ABCD) study completed a questionnaire assessing their child's demographics, family information, emotion and behavior, and past-year school discipline history. Data were analyzed with logistic regression, implemented with a generalized estimating equation model.

**Results:** 5.4% of children received a detention or suspension. Controlling for typical predictors of behavior, Black (up to 1.5 times greater odds of receiving a detention or suspension than White children), those from single-parent households had 1.4 times the odds of receiving a suspension or detention compared to two-parent households.

**Conclusion:** Disciplinary actions that can impact typical childhood development, lead to academic failure and emotional and psychological distress disproportionately affect Black children, multiracial Black children, and children from single-parent households. To decrease school discipline on purpose, discipline is related to educational system.

**Key words:** education, race, discipline, Black, racism

*J Am Acad Child Adolesc Psychiatry* 2021;60(10):998-1009

Exclusionary discipline practices include actions that remove students from their usual educational setting and typically come in the form of detentions, in-school suspensions, and out-of-school suspensions. Suspensions and detentions are common standards of practice in schools, despite evidence that they are largely ineffective in deterring disruptive and unsafe behavior and can perpetuate delinquency, academic challenges, school dropout, and juvenile justice system involvement.<sup>1-7</sup> Children with higher rates of mental health symptoms are at a greater risk for being subjected to exclusionary discipline practices, and also experience negative mental health effects as a result of detentions or suspensions, indicating a bi-directional effect of detentions and suspensions with psychological distress and emotional difficulties.<sup>8-14</sup> Suspensions and detentions interfere with academic and social development, which can decrease



**Congratulations to Matthew Fadus, M.D., 2020 DART Resident Alumnus**, and his research team! His paper, *Racial Disparities in Elementary School Disciplinary Actions: Findings From the ABCD Study*, was awarded the **#1 paper of the year** by the The American Academy of Child and Adolescent Psychiatry (AACAP). The paper won the **Norbert and Charlotte Rieger Award for Scientific Achievement** for the **most significant paper by a child and adolescent psychiatrist** published in the Journal during the past year. Dr. Fadus' work during the DART program led to the findings in [this paper](#). Dr. Fadus is currently a psychiatrist and team member of the Counseling and Mental Health Services at Harvard University. Kudos on your excellent work Dr. Fadus!

**Jennifer Jones, M.D., 2017 DART Resident Alumna** and current DART Mentor, serves as the **lead psychiatrist at MUSC's ketamine clinic, Centerspace**. She oversees the scientific program development at the clinic as well as the day-to-day clinical operations. **Robert Malcolm, Jr., M.D., a frequent DART Mentor**, also works with Dr. Jones in the clinic as a board-certified psychiatrist as well as clinical researcher. We are so proud of your amazing work Dr. Jones! [Learn more about Centerspace.](#)



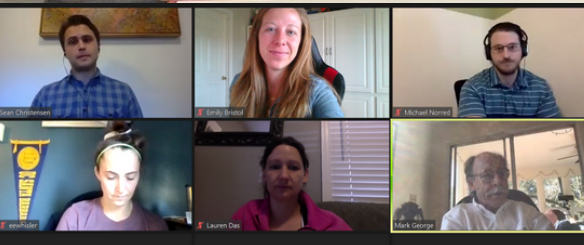
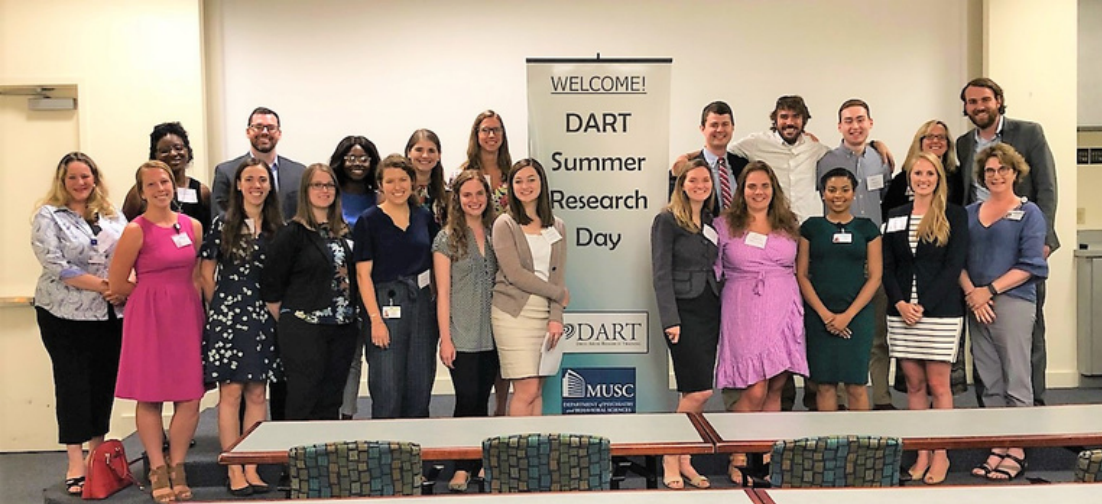
**Centerspace is MUSC Health's first psychotherapy center**



**Nolan Williams, M.D., 2014 DART Resident Alumnus**, is conducting pioneering work in brain stimulation! On September 6, 2022, the **U.S. Food and Drug Administration cleared the SAINT Rapid-Acting Brain Stimulation Approach** for those suffering from resistant major depression. Dr. Williams led the way on this research and is currently Director of the Stanford Brain Stimulation Lab. He is spearheading these advancements in the brain stimulation community. Way to make a difference Dr. Williams! [Learn more about Dr. Williams' SAINT protocol.](#)

- Podcast - [Listen to Dr. Williams on the Huberman Lab Podcast!](#)





Thank  
you!

to **Emily Bristol** for 4 years of incredible dedication as the DART Program Coordinator!

Emily Bristol, MSW supported the DART Program for 4 years as Program Coordinator. She completed her Masters in Social Work (MSW) at the University of South Carolina last May and received the MSW Student of the Year award! Emily co-coordinated the 2022 DART Summer Research Day with our newest Coordinator, Gillian Bello. At the end of the 2022 summer program, Emily transitioned to a position as Outreach Clinician with the National Crime Victim's Research & Treatment Center at MUSC, bringing trauma and risk reduction therapy to kids and adolescents in the Charleston community. We are so very grateful for having had the opportunity to work with Emily over the past few years. Thank you and congratulations on your next steps, Emily!

# Select Publications

Badran, B. W., Gruber, E. M., O'Leary, G. H., **Austelle, C. W.**, Huffman, S. M., **Kahn, A. T.**, McTeague, L. M., Uhde, T. W., & Cortese, B. M. (2022). Electrical stimulation of the trigeminal nerve improves olfaction in healthy individuals: A randomized, double-blind, sham-controlled trial. *Brain stimulation*, 15(3), 761–768. [Available online.](#)

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Trapp, N. T., & **Williams, N. R.** (2021). The Future of Training and Practice in Neuromodulation: An Interventional Psychiatry Perspective. *Frontiers in psychiatry*, 12, 734487. [Available online.](#)

Wang, Z., **Zuschlag, Z. D.**, Myers, U. S., & Hamner, M. (2022). Atomoxetine in comorbid ADHD/PTSD: A randomized, placebo controlled, pilot, and feasibility study. *Depression and anxiety*, 39(4), 286–295. [Available online.](#)

**Zuschlag, Z. D.**, **Compean, E.**, Nietert, P., Lauzon, S., Hamner, M., & Wang, Z. (2021). Dopamine transporter (DAT1) gene in combat veterans with PTSD: A case-control study. *Psychiatry research*, 298, 113801. [Available online.](#)



**For additional information or to apply, please visit [our website](#) or contact [Gillian Bello](#).**