15 Years of Education & Training

Shaping future researchers & clinicians

The Drug Abuse Research Training Program at the Medical University of South Carolina (MUSC) is sponsored by the National Institute on Drug Abuse (R25 DA020537).

The mission of this program is to increase the number of physician-scientists with the necessary skills to conduct patient-oriented research and to promote research training. The program accomplishes its goals through a 2-year resident research track, a 10-week summer research fellowship for undergraduate, graduate, and medical students, pilot project funding, didactic seminars, and individual mentorship.

The DART Program was founded in 2006 by Kathleen Brady, M.D., Ph.D. and is directed by Sudie Back, Ph.D., Sarah Book, M.D., and Kelly Barth, D.O.

For more information, visit medicine.musc.edu/DART
Resident Research Track

FIRST YEAR TRAINEES
The DART Program welcomed 4 outstanding residents in the 2019-2021 cohort. These trainees will have both seasoned and early career mentors to support their diverse research interests.

Sean Christensen, M.D., is a resident in General Psychiatry. He completed his medical school education at the University of South Carolina School of Medicine and undergraduate degrees in Neurobiology and Mass Communications at the University of California Berkeley. His interest in the digital health space fuels his passion for developing patient-centered technologies, with a focus on usability and device integration. His research will focus on voice analysis as a digital biomarker of recovery in depressive disorders as patients undergo series of electroconvulsive therapy. Mark George, M.D., is his primary mentor and Gregory Sahlem, M.D. is his secondary mentor.

Lauren Das, M.D., received her B.A. in Biological Sciences from Clemson University in 2011. She went on to finish both her medical degree and masters in clinical research at the Medical University of South Carolina. She joined the general psychiatry residency program at MUSC in 2017. Her masters research was focused on the association between maternal anxiety in pregnancy and its effects on birth outcomes. Her clinical and research interests are primarily centered on physician wellness and addiction psychiatry. Karen Hartwell, M.D. is her DART mentor.

Michael Norred, M.D., is a Florida native and attended the University of Central Florida for both undergraduate education and medical school. He majored in psychology and gained research experience working with a psychiatrist on pharmaceutical research. Not only did this experience further his interest in research, it also inspired him to pursue medical school. While in medical school, he carried out a study looking at the relationship of perceptions of exercise and meeting CDC guidelines for exercise. Towards the end of medical school and early in residency, he became interested in neuromodulation. For his DART research project, Dr. Norred is interested in contributing to optimization of these treatment modalities with his mentors Mark George, M.D., Lisa McTeague, Ph.D., Gregory Sahlem, M.D., and Baron Short, M.D.

Patrick Robbins, M.D., is interested in evaluating the emerging increase in benzodiazepine use, alongside clinical interests of consultation-liaison and forensic psychiatry. His research will focus on benzodiazepines, their connection to delirium, and patient knowledge of associated risks. He and his primary mentor, Benjamin Kaliwaj, M.D., recently presented their poster Delirium Incidence at a Large Academic Hospital at the American Delirium Society annual meeting in Boston, MA in June 2019. They have collaborated on several projects, including Benzodiazepines and Non-ICU Delirium Screen Results at a Large Academic Medical Center, which was accepted for oral paper presentation at the upcoming Academy of Consultation-Liaison Psychiatry annual meeting in San Diego, CA in November 2019.

THE DART PROGRAM
Early Review

Congratulations, Corey Hassell, M.D., who submitted his application for early review and has been accepted to the 2020-2022 Resident Research Track. He will be working with mentors Jacob Mintzer, M.D., Tara Wright, M.D., and Jessica Broadway, M.D.
Resident Research Track

SECOND YEAR TRAINEES

Joshua C. Brown, M.D., Ph.D., is primarily mentored by Mark George, M.D. and secondarily mentored by Gregory Sahlem, M.D., Baron Short, M.D. and Leonardo Bonhila, M.D., Ph.D. He is investigating the role of NMDA receptor-dependent synaptic plasticity in repetitive transcranial magnetic stimulation (rTMS) after-effects using pharmacologic augmentation and antagonism. He is currently recruiting and enrolling patients for his study. This year, Dr. Brown attended the 3rd Annual International Brain Stimulation Conference, the Clinical TMS Society 2019 annual meeting, and the 2nd annual Carolina Neurostimulation Conference. He applied for the DPS Early Independence Award through the NIH and is awaiting a final response from the NIH Loan Repayment Program (LRP).

Michael Capata, M.D., has continued to work with mentor Karen Hartwell, M.D. to survey physician attitudes toward opioid use disorder, suboxone, naloxone, and barriers to adequate treatment. He has also been working with Dr. Hartwell to understand fentanyl exposure among patients in the veterans’ clinic. Dr. Capata attended this year’s APA conference in San Francisco and is working with his mentor to submit an abstract for the next College on Problems of Drug Dependence.

Matthew Fadus, M.D., has been working with Lindsay Squeglia, Ph.D. on the national Adolescent Brain Cognitive Development Study (ABCD) and plans to evaluate racial disparities among mental health. He is also interested in the relationship between screen time and mental health. Dr. Fadus submitted several publications to Academic Psychiatry and has been featured in the APA Residents’ Forum this year. He was awarded the Group for Advancement of Psychiatry Fellowship. He is a Deputy Editor of the American Journal of Psychiatry Residents’ Journal (2019-2020).

KUDOS

Dr. Capata was accepted for the Addiction Fellowship at MUSC

Dr. Fadus was nominated for the Lift as You Climb Diversity Mentorship Award at the College of Medicine at MUSC

Dr. Christensen received the APA’s 2019 Innovation Lab Alumni Award for his app, Cognova

Dr. Brown submitted his grant application for the NIH Director’s Early Independence Award (DP5)

Drs. Fadus & Capata selected for Chief Resident
Summer Fellowship

2019 students presented the culmination of their work at the DART Summer Research Day, Friday, July 26th, 2019.

Familia Kwanza: Experiences with Hypertension and Diabetes among Tanzanian Individuals Living with HIV and their Families
Presented by Deborah Adeyemi, B.S.
Mentored by Virginia Fonner, Ph.D.

The Effects of Introducing an Alternative Reward on Alcohol Self-Administration in Alcohol Dependent Mice and Alcohol Non-Dependent Mice
Presented by Chris Baltimore
Mentored by Howard Becker, Ph.D. & Marcel Lopez, Ph.D.

The Effect of Daily Stressors on Neuroendocrine and Subjective Reactivity Following a Psychosocial Stress Paradigm in Cocaine-Dependent Individuals
Presented by Raquelle Bourgeois
Mentored by Brian Sherman, Ph.D.

Rats will Aid a Distressed Conspecific Independent of Social Reward
Presented by Stewart S. Cox, M.S.
Mentored by Carmela Reichel, Ph.D.

Gendered Experiences? Examining Race-Related Events and Depressive Symptoms in African American Children and Adolescents
Presented by Cindy Dike, M.Ed.
Mentored by Colleen Halliday-Boykins, Ph.D.

Correlates of Hedonic Hunger Among Participants in an Obesity Treatment Program
Presented by Jenna Frawley, B.S.
Mentored by Patrick O’Neil, Ph.D.

A Data-driven Approach for Determining Statistical Power of TMS-evoked Potentials
Presented by Kyla Gibney, B.A.
Mentored by Lisa McTeague, Ph.D.
2019 KEYNOTE SPEECH

Gregory Sahlem, M.D.
“Translating Transcranial Magnetic Stimulation: From Neuroimaging in Depression to a Potential Treatment for Cannabis Use Disorder”

Alterations in Posterior Cingulate Cortex Resting-State Connectivity Specific to PTSD Patients with Comorbid Substance Use Disorder
Presented by Madeline Hohmeister, B.A.
Mentored by Jane Joseph, Ph.D.

The Dorsolateral Prefrontal Cortex’s Role in Error Processing and Impulse Control for AUD and non-AUD Individuals: Evidence from Neuroimaging and Behavioral Tasks
Presented by Andrew Rowley, B.S.
Mentored by Joseph Schacht, Ph.D.

Sleep Quality During Substance Use Treatment is Related to the Association Between Employment Status and Type of Substance
Presented by Anna Russell
Mentored by Allison Wilkerson, Ph.D.

Examining Changes in Depression and Anxiety Symptoms in Adolescent Smokers During a 12-Week Pharmacotherapy Trial
Presented by Iris M. Sakamoto
Mentored by Erin McClure, Ph.D. & Jennifer Dahne, Ph.D.

Recruitment Strategies for Two Youth Substance Use Treatment Studies: A Cost-Benefit Analysis
Presented by Kayla R. Shine & Sonia Hopkins
Mentored by Lindsay Squeglia, Ph.D. & Matthew Fadus, M.D.

Cognitive Behavioral Therapy for Chronic Pain and Shared Decision Making to Reduce Prescription Opioid Use and Misuse in Pregnant Women
Presented by Marinna Smith
Mentored by Constance Cuille, M.D.

Morphometric Analysis for Circadian Rhythm’s Role in Bipolar and Alcohol Use Disorder Patients
Presented by Stanley Wang, B.S.
Mentored by James J. Prisciandaro, Ph.D.
JESSICA NORTON, M.S.
Summer Fellowship, 2018
Mentored by Colleen Halliday-Boykins, Ph.D.

Since the DART Summer Fellowship, Ms. Norton has continued working with Colleen Halliday-Boykins, Ph.D., on several research projects while pursuing her doctorate in Human Development and Family Studies at Auburn University. In March, she presented at the Society for Research on Child Development Biennial Meeting, collaborating with Dr. Halliday-Boykins to understand educational aspiration-expectation gaps across racial groups. Ms. Norton has recently started a research assistantship with the National Institute of Justice in Washington, D.C. where she'll assist top researchers in fields including juvenile justice, school crime and safety, and victimization.

GEORGE BOOK
Summer Fellowship, 2017
Mentored by Lindsay Squeglia, Ph.D.

Mr. Book is a 4th year medical student interested in a combined Internal Medicine and Psychiatry residency and later an addictions fellowship. He will lead a case presentation at the 2019 annual Association of Medicine and Psychiatry meeting in Atlanta, GA. Following his summer fellowship, he collaborated with DART alumni Dr. Ben Kalivas to investigate the frequency of physician use of Medication Assisted Therapy for treatment of opiate use disorder in patients with infective endocarditis. He will be presenting their data at the Association of Consult Liaisons Psychiatry in San Diego.

BENJAMIN KALIVAS, M.D.
Resident Research Track, 2016
Mentored by Robert Malcolm, M.D.

Dr. Kalivas (pictured 3rd from left) is an Assistant Professor in the Departments of Medicine and Psychiatry at MUSC. His current work focuses on the implementation of delirium screening and understanding the impact at a health system level. Using big data, he is working to better understand the impact of delirium and the steps taken to manage it. Dr. Kalivas led a workshop for "Sustaining Organization-Wide Delirium Recognition & Intervention Programs" at this year's American Delirium Society Annual Meeting.

GREGORY L. SAHLEM, M.D.
Resident Research Track, 2014
Mentored by Mark George, M.D.

Dr. Sahlem has continued the work he began with the support of DART and his mentorship team, including Mark George, M.D., Baron Short, M.D., Aimee McRae-Clark, PharmD, Robert Malcolm, M.D., and others, transitioning from residency to a faculty position at MUSC. He is currently involved in several studies that explore the potential efficacy of rTMS as a treatment for substance use disorders.

*Authors include Gregory Sahlem, M.D.


Upcoming Conferences

The 54th Perry V. Halushka Research Day
November 1, 2019
Medical University of South Carolina
Charleston, South Carolina

American Academy of Addiction Psychiatry 30th Annual AAAP Meeting
December 5-8, 2019
San Diego, California

American College of Neuropsychopharmacology 58th Annual Meeting
December 8-11, 2019
Orlando, Florida

American Association for the Advancement of Science
2019 Annual Meeting
February 13-16, 2020
Austin, Texas

Society for Research on Nicotine & Tobacco 25th Annual Meeting
March 11-14, 2020
New Orleans, Louisiana

American Society of Addiction Medicine Annual Conference-Innovations in Addiction Medicine and Science
April 2-5, 2020
Denver, Colorado

Society of Biological Psychiatry 75th Annual Meeting
April 30-May 2, 2020
New York, New York

American Psychiatric Association 173rd Annual Meeting
April 25, 2020
Philadelphia, Pennsylvania

The College on Problems of Drug Dependence 82nd Annual Meeting
June 20-24th, 2020
Hollywood, Florida

Research Society on Alcoholism 43rd Scientific Meeting/ISBRA Congress
June 20-24, 2020
New Orleans, Louisiana

Loan Repayment Program (LRP)
The Clinical Research Loan Repayment Program is a vital component of our nation’s efforts to attract health professionals to careers in clinical research. In exchange for a two-year commitment to clinical research, NIH will repay up to $35,000 per year of qualified educational debt, pay an additional 39% of the repayments to cover Federal taxes, and may reimburse state taxes that result from these payments. To participate, you must conduct clinical research for 50% or more of your total effort (average at least 20 hours per week) during each quarterly service period. Examples of DART alumni who completed the LRP are Drs. Kelly Barth, Bryan Tolliver, & Jennifer Jones.
For more information, please visit http://www.lrp.nih.gov

For additional information or to apply, please visit our website: medicine.musc.edu/DART