#### Curriculum Vitae

# Erin L. Martin, Ph.D.

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### **EDUCATION**

2024 **Doctor of Philosophy**, Neuroscience

Medical University of South Carolina, Charleston, SC

Dissertation: Individual differences in cannabis use disorder with implications for

endocannabinoid modulation in therapeutics development

Advisor: Aimee McRae-Clark, Pharm.D.

2015 **Bachelor of Arts**, Psychology

University of Maryland, Baltimore County, Baltimore, MD

# PROFESSIONAL EXPERIENCE

2024 – Postdoctoral Fellow

Addiction Sciences Division

Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina,

Charleston, SC

2016 – 2019 Research Program Coordinator

Behavioral Pharmacology Research Unit

Department of Psychiatry and Behavioral Sciences, Johns Hopkins University, Baltimore, MD

2016 Research Intern

Behavioral Pharmacology Research Unit

Department of Psychiatry and Behavioral Sciences, Johns Hopkins University, Baltimore, MD

# **GRANT SUPPORT**

## Training Grants

5/24 – Drug Abuse Training Program

T32-DA007288 - National Institute on Drug Abuse

Role: Postdoctoral Fellow (PI: Jacqueline McGinty, Ph.D.)

6/22 – 4/24 Evaluating Contributors to Relapse in Comorbid Major Depressive Disorder and Cannabis Use

Disorder

F31-DA057051 – National Institute on Drug Abuse

Role: Principal Investigator

8/20 – 5/22 Drug Abuse Training Program

T32-DA007288 - National Institute on Drug Abuse

Role: Pre-Doctoral Trainee (PI: Jacqueline McGinty, Ph.D.)

5/20 – 7/20 Drug Abuse Research Training Summer Research Fellowship

R25-DA020537 – National Institute on Drug Abuse

Role: Summer Trainee (PI: Sudie Back, Ph.D.)

### Research Grants

5/21 – 4/22 Endocannabinoid Dysregulation in Cannabis Dependence and Acute Cannabis Withdrawal

U54-DA016511 - National Institute on Drug Abuse

Direct cost: \$15,000 (Pilot Award) Role: Principal Investigator

### **HONORS & AWARDS**

2024	SCORE Annual Meeting Early Career Presentation Award
2024	MUSC Distinguished Graduate Award
2024	Society of Biological Psychiatry Predoctoral Travel Fellowship Award
2023	CPDD Early Career Research Presentation Competition Winner
2022	MUSC Research Day Oral Presentation Award
2022	SCORE Annual Meeting Flash Talk Award
2022	MUSC Dean's Incentive Award
2022	International Cannabinoid Research Society Trainee Grant
2022	CPDD NIDA Director's Travel Award
2021	International Cannabinoid Research Society Trainee Award
2021	CPDD NIDA Women & Sex/Gender Junior Investigator Travel Award
2015	Cum Laude, University of Maryland, Baltimore County

#### **PUBLICATIONS**

### Peer-Reviewed Journal Articles

- 12) **Martin EL**, Campbell LM, Thorn K, Sahlem GL, McRae-Clark AL, & Benitez A. Sex differences in normative modeling of cortical thickness in cannabis use disorder. *Drug and Alcohol Dependence Reports* (2025).
- 11) Lee DC, Schlienz NJ, Herrmann ES, **Martin EL**, Leoutsakos J, Budney AJ, Tompkins DA, Hampson AJ, & Vandrey R. Randomized controlled trial of zolpidem as a pharmacotherapy for cannabis use disorder. *Journal of Substance Use and Addiction Treatment* (2024).
- 10) **Martin EL,** Baker NL, Sempio C, Christians U, Klawitter J, & McRae-Clark AL. Sex differences in endocannabinoid tone in a pilot study of cannabis use disorder and acute cannabis abstinence. *Addiction Biology* (2023).
- 9) **Martin EL**, Neelon B, Brady K, Guille C, Baker N, Ramakrishnan V, Gray KM, Saladin ME, & McRae-Clark AL. Differential prevalence of Adverse Childhood Experiences (ACEs) by gender and substance used in individuals with cannabis, cocaine, opioid, and tobacco use disorders. *The American Journal of Drug and Alcohol Abuse* (2023).
- 8) Garcia-Romeu A, Elmore J, Mayhugh R, Schlienz NJ, **Martin EL**, Strickland JC, Bonn-Miller MO, Munson J, Jackson H, & Vandrey R. Online survey of medicinal cannabinoid users: qualitative analysis of users' experiences. *Frontiers in Pharmacology* (2022).
- 7) Sholler DJ, Zamarripa CA, Spindle TR, **Martin EL**, Kuntz D, Vandrey R, & Grabenauer M. Urinary excretion profile of cannabinoid analytes following acute administration of oral and vaporized cannabis in infrequent cannabis users. *Journal of Analytical Toxicology* (2022).
- 6) **Martin EL**, Strickland JC, Schlienz NJ, Munson J, Jackson H, Bonn-Miller MO, & Vandrey R. Antidepressant and anxiolytic effects of medicinal cannabis use in an observational trial. *Frontiers in Psychiatry* (2021).
- 5) **Martin EL**, Doncheck EM, Reichel CM, & McRae-Clark AL. Consideration of sex as a biological variable in the translation of pharmacotherapy for stress-associated drug seeking. *Neurobiology of Stress* (2021).
- 4) Strickland JC, Jackson H, Schlienz NJ, Salpekar J, **Martin EL**, Munson J, Bonn-Miller MO, & Vandrey R. Cross-sectional and longitudinal evaluation of cannabidiol (CBD) product use and health among people with epilepsy. *Epilepsy & Behavior* (2021).
- 3) Spindle TR, **Martin EL**, Grabenauer M, Woodward T, Milburn M, & Vandrey R. Assessment of cognitive and psychomotor impairment, subjective drug effects, and blood THC concentrations following acute administration of oral and vaporized cannabis. *Journal of Psychopharmacology* (2021).
- 2) **Martin EL** & McRae-Clark AL. Evidence for the endocannabinoid system as a therapeutic target in the treatment of cannabis use disorder. *Current Addiction Reports* (2020).

1) Schlienz NJ, Scalsky R, **Martin EL**, Jackson H, Munson J, Strickland JC, Bonn-Miller MO, Loflin M, & Vandrey R. A cross-sectional and prospective comparison of medicinal cannabis users and controls on self-reported health. *Cannabis & Cannabinoid Research* (2020).

# **PRESENTATIONS**

- 2024 **Martin EL**, Campbell LM, Thorn K, Sahlem GL, McRae-Clark AL, & Benitez A. Sex differences in normative modeling of cortical thickness in cannabis use disorder. Oral/poster presentation at the Specialized Centers of Research Excellence on Sex Differences 2024 Annual Meeting.
  - **Martin EL**, Bradshaw HB, & McRae-Clark AL. Differences in stress response in individuals with cannabis use disorder alone and comorbid cannabis use disorder and major depressive disorder. Oral presentation at the 33<sup>rd</sup> Annual International Cannabinoid Research Society Symposium on the Cannabinoids.
  - **Martin EL**, Upton S, Nowling B, Froeliger B, Squeglia LM, Gray KM, & McRae-Clark AL. Mesocorticolimbic activation is associated with abstinence from cannabis in a pilot trial of varenicline for cannabis use disorder. Poster presented at the College on Problems of Drug Dependence 86<sup>th</sup> Annual Scientific Meeting.
  - **Martin EL**, Neelon B, Saladin ME, Tomko RL, Sherman BJ, Gray KM, & McRae-Clark AL. Multiple measures of stress response differentially predict cannabis use in individuals with cannabis use disorder. Poster presented at the Society of Biological Psychiatry 2024 Annual Meeting.
- 2023 **Martin EL,** Campbell LM, Thorn K, Sahlem GL, McRae-Clark AL, & Benitez A. Sex differences in cortical thickness in cannabis use disorder. Poster presented at the College on Problems of Drug Dependence 85<sup>th</sup> Annual Scientific Meeting.
  - **Martin EL**, Baker NL, Sempio C, Christians U, Klawitter J, & McRae-Clark AL. Sex differences in endocannabinoid tone in cannabis use disorder and acute cannabis withdrawal. Poster presented at the Society of Biological Psychiatry 2023 Annual Meeting.
- Martin EL, Baker NL, Sempio C, Christians U, Klawitter J, & McRae-Clark AL. Sex differences in endocannabinoid tone in cannabis use disorder and acute cannabis withdrawal. Oral presentation at the Specialized Centers of Research Excellence on Sex Differences 2022 Annual Meeting.
  - **Martin EL**. Treatment for cannabis use disorder: importance of individual differences and the endocannabinoid system. Invited oral presentation for the Drugs Research Group in the Institute of Psychiatry, Psychology, and Neuroscience at King's College London.
  - **Martin EL** & McRae-Clark AL. Sex differences in cannabis withdrawal and the role of the endocannabinoid system. Oral presentation at the 31<sup>st</sup> Annual International Cannabinoid Research Society Symposium on the Cannabinoids.
  - **Martin EL,** Baker NL, Neelon B, Saladin ME, Ramakrishnan V, & McRae-Clark AL. Gender differences in antecedents of cannabis use. Oral presentation at the College on Problems of Drug Dependence 84<sup>th</sup> Annual Scientific Meeting.
  - **Martin EL,** Thorn K, Sahlem GL, McRae-Clark AL, & Benitez A. Sex differences in cortical thickness in cannabis use disorder. Poster presented at the Society of Biological Psychiatry 2022 Annual Meeting.
- 2021 **Martin EL,** Neelon B, Brady KT, Guille C, Baker NL, & McRae-Clark AL. Prevalence of adverse childhood experiences by primary substance used and gender. Poster presented at the Specialized Centers of Research Excellence on Sex Differences 2021 Annual Meeting.
  - **Martin EL,** Baker NL, Flanagan JC, Joseph JE, & McRae-Clark AL. Endogenous and exogenous oxytocin differentially impact stress response on the basis of childhood trauma exposure. Poster presented at the College on Problems of Drug Dependence 83<sup>rd</sup> Annual Scientific Meeting.
  - **Martin EL,** Baker NL, Froeliger B, & McRae-Clark AL. Tobacco co-use influences treatment outcomes in a pilot trial of varenicline for cannabis use disorder. Poster presented at the 30<sup>th</sup> Annual International Cannabinoid Research Society Symposium on the Cannabinoids.
  - Martin EL, Baker NL, Froeliger B, & McRae-Clark AL. Tobacco co-use affects treatment outcomes in a pilot trial of varenicline for cannabis use disorder. Oral presentation at the Society for Research on Nicotine and Tobacco 2021 Annual Meeting, part of symposium "Treatment Implications and Considerations for the Co-Use of Cannabis and Tobacco".

- 2020 **Martin EL,** Doncheck EM, Reichel CM, & McRae-Clark AL. Pharmacological interventions in stress-induced drug-seeking: efficacy across sex and species. Oral presentation at the Specialized Centers of Research Excellence on Sex Differences 2020 Annual Meeting.
  - **Martin EL**, Baker NL, & McRae-Clark AL. Varenicline in the treatment of cannabis use disorder: impact of tobacco use. Oral presentation at the College on Problems of Drug Dependence 82<sup>nd</sup> Annual Scientific Meeting.
- 2019 **Martin EL,** Spindle TR, Grabenauer M, Milburn MA, & Vandrey R. Assessment of impairment following oral and vaporized cannabis administration in infrequent users. Poster presented at the Carolina Cannabinoid Collaborative Annual Meeting 2019.
  - **Martin EL,** Schlienz NJ, Munson J, Jackson H, Bonn-Miller MO, & Vandrey R. Therapeutic cannabinoids in anxiety and depression: results from an observational research study. Poster presented at the 29<sup>th</sup> Annual International Cannabinoid Research Society Symposium on the Cannabinoids.
  - **Martin EL,** Schlienz NJ, Munson J, Jackson H, Bonn-Miller MO, & Vandrey R. Therapeutic cannabinoids in anxiety and depression: results from an observational research study. Oral presentation at the 2019 Cannabis Science Conference East.
- Martin EL, Schlienz NJ, Herrmann ES, Budney AJ, Lee DC, Hampson A, Smith M, Leoustsakos JS, Stitzer ML, & Vandrey R. Targeting sleep in adults seeking treatment for cannabis use disorder. Poster presented at the 32<sup>nd</sup> Annual Meeting of the Associated Professional Sleep Societies, LLC. Abstract published in *Sleep*, Volume 41, Supplemental Issue.

## **TEACHING & MENTORSHIP**

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2024	Clinical Neuroscience Research. Lecture delivered to historically disadvantaged sophomore-
	and junior-level high school students as part of the MUSC Upward Bound initiative.
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- 2024 Individual Differences in Cannabis Use Disorder with Implications for Endocannabinoid Modulation in Therapeutics Development. Lecture delivered as part of College of Charleston Neuroscience course BIOL/PSYC 447.
- 2023 2024 *Endocannabinoids and Cannabis Use Disorder.* Lecture delivered to students in the MUSC Summer Undergraduate Research Program (SURP).
- 2021 2022 **Psychopharmacology: How Drugs Affect Our Thoughts, Feelings, and Behavior.** Lecture delivered to students in the MUSC Summer Undergraduate Research Program (SURP).

#### Mentorship

2023	Jonathan Yass – Undergraduate Intern, College of Charleston
2022 - 2024	Diversity in Addiction Research Training (DART) Near-Peer Mentor, MUSC
2019	Darren Lin – Undergraduate Intern, Johns Hopkins University
2018	Zachary Hyde – Undergraduate Intern, Johns Hopkins University
2017 – 2019	Ryan Scalsky – Undergraduate Intern, University of Maryland, Baltimore County
2017	Paras Dalwadi – Undergraduate Intern, University of Maryland, Baltimore County
2016	Omair Akmal – Undergraduate Intern, Johns Hopkins University

### PROFESSIONAL ACTIVITIES & SERVICE

# **Professional Affiliations**

2022 - 2025	Student Affiliate, American Psychological Association (Div. 28)
2021 –	Student Member, Society of Biological Psychiatry
2020 –	Member-in-Training, College on Problems of Drug Dependence
2019 –	Predoctoral Member, International Cannabinoid Research Society

### Service

2022 –	Department of I	Neuroscience Diversit	y and Inclusion Task Force	, MUSC
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2022 – 2023 Department of Neuroscience Graduate Student Retreat Organizing Committee, MUSC

# Ad Hoc Reviewer

Addictive Behaviors
American Journal on Addictions
Cannabis & Cannabinoid Research
Cerebral Cortex
Frontiers in Psychiatry
Journal of Psychopharmacology
Neuroscience & Biobehavioral Reviews
npj Mental Health Research
Scientific Reports

# Community Engagement

2025

"Yes, you can get addicted to weed." Oral presentation given as part of *From the Lab to Recovery* event hosted by MUSC Students for Sensible Drug Policy.

### CONSULTING

# 2019 Sleep Architecture Consultant

Department of Psychiatry, University of Pennsylvania, Philadelphia, PA PI: Marcel Bonn-Miller, Ph.D.

Consultant on Colorado Department of Public Health and Environment grant studying safety and efficacy of cannabis use among veterans with post-traumatic stress disorder (PTSD).