Curriculum Vitae - Spencer Upton, MS, MA

PhD Student

University of Missouri – Columbia, United States

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**Education**

2022-Present PhD Department of Psychological Sciences, University of Missouri-Columbia (MU)

(*Cognition and Neuroscience*) (Brett Froeliger, PhD)

2022-2024 MA Department of Psychological Sciences, University of Missouri-Columbia (MU)

(*Cognition and Neuroscience*) (Brett Froeliger, PhD)

2019-2020 MS Department of Neuroscience, Georgetown University (GU)

(*Integrative Neuroscience*) (Josef Rauschecker, PhD)

2015-2019 BS Department of Psychology, Slippery Rock University (SRU)

(*Psychology w/ neuroscience conc. and Philosophy*) (Jennifer Willford, PhD)

2014 Butler County Community College (BC3)

**Research Grants**

**1F31DA063285-01** (Pending IRG meeting on 11/14/2024)

Spencer Upton (PI)

Brett Froeliger (Sponsor)

Satish Nair (Co-Sponsor)

Award Dates: 4/01/2025 – 4/01/2027

Title: Connectome-based Predictive Modeling of Emotion Regulation Efficacy

Summary: This proposal via CPM, aims to identify and validate brain-behavior predictive models of emotion regulation efficacy among individuals with and without Tobacco Use Disorder.

**Positions, Scientific Appointments, Honors**

Positions: Academic

2023−Present Predoctoral Fellow, NIAAA T32 Training Grant, MU

2023 Graduate Research Assistantship, MU

2022 Graduate Teaching Assistantship, MU

2019-2020 Graduate Research Assistant, Lab of Integrative Neuroscience and Cognition, GU

2018-2019 Undergraduate Research Assistant, Developmental Neuroscience Lab, SRU

2017-2018 Undergraduate Research Assistant, Department of Philosophy, SRU

Positions: Professional

2020−2022 Research Specialist (Project Coordinator), Health Neuroscience Center, MU

2020 Landscaper, G and J Fencing, Mercer PA

2015–2019 Federal Work Study (Front Desk Attendant), Bailey Library, SRU, PA

2012−2015 Dishwasher, Countryside Personal Care Home, Mercer PA

2011 Cashier, BP Gas Station, Grove City PA

2010 Warehouse Attendant, Roder’s Agway, Grove City Pa

Positions: Other

2023−2024 Graduate Professional Council (GPC) officer for the Graduate Association of Students in

Psychology (GASP), MU

2017 President, Philosophy Club, SRU

2018-2019 Moderator, Regional Ethics Bowl, SRU

2017 Panelist, Master Planning Student Focus Group, SRU

2016 Panelist, Inspiration Student Focus Group, SRU

2016 Competitor, Regional Ethics Bowl, SRU

Scientific Appointments: Memberships

2022 − Present Society for Neuroscience (SFN)

2021 − Present Society for Research on Nicotine and Tobacco (SRNT)

2020 − 2021 The Neurocognitive Therapies and Translational Research Special Interest Group of the Association for Behavioral and Cognitive Therapies (ABCT)

Scientific Appointments: Assistant Reviewer

Oct 2022 *Addictive Behaviors*

Aug 2021 *Neuropsychopharmacology*

Honors: Scholarships/Grants

2019 Biomedical Graduate Education Scholarship, GU

2018 Rose and Dale Kaufman Scholarship, SRU

2017 Meiping Cheng Memorial Scholarship, SRU

2014 − 2019 Federal Pell Grant, SRU ($24,297)

Honors: Other  
2023 Undergraduate Mentoring Award, MU

2019 Psychology Student Scholar Award Nominee, SRU

2018 Outstanding Student in Research Nominee, SRU

2017 Summer Undergraduate Research Experience Grant Recipient, SRU

**P****ublications**

2024 6. (Under Review) **Upton, S**., & Froeliger B (2024). Regulation of Craving and Underlying Resting-State Neural Circuitry Predict Hazard of Smoking Lapse.

2024. 5. Smith A, Azeem M, Odhiambo CO, Wright PJ, Diktas HE, **Upton S**, Martin CK, Froeliger B, Corbett

CF, Valafar H. Toward Concurrent Identification of Human Activities with a Single Unifying Neural

Network Classification: First Step. *Sensors*. 2024; 24(14):4542. <https://doi.org/10.3390/s24144542>

Impact Factor = 3.7

2024 4. Cofresí, R. U., **Upton, S.,** Brown, A., Piasecki, T. M., Bartholow, B. D., & Froeliger, B.

Mesocorticolimbic system reactivity to alcohol use-related visual cues as a function of alcohol sensitivity

phenotype: a pilot fMRI study. *Addiction Neuroscience*. [https://doi.org/10.1016/j.addicn.2024.100156](https://nam02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdoi.org%2F10.1016%2Fj.addicn.2024.100156&data=05%7C02%7Cuptons%40missouri.edu%7Cc24b8fc4ef4e4da6ee1a08dc6f794d7b%7Ce3fefdbef7e9401ba51a355e01b05a89%7C0%7C0%7C638507814007539635%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C0%7C%7C%7C&sdata=Ajn0vqdLW2v4UrSRgpu3M%2FRDmWsSzQ3uqjdn9fzXzFk%3D&reserved=0)

Impact Factor = new journal (no impact factor yet)

2023 3. **Upton, S**., Brown, A. A., Ithman, M., Newman-Norlund, R., Sahlem, G., Prisciandaro, J. J., McClure, E. A., & Froeliger, B. (2023). Effects of Hyperdirect Pathway Theta-Burst Transcranial Magnetic

Stimulation on Inhibitory Control, Craving, and Smoking in Adults with Nicotine Dependence: A Double-

Blind Randomized Crossover Trial. Biological psychiatry. Cognitive neuroscience and neuroimaging,

S2451-9022(23)00196-9. Advance online publication. <https://doi.org/10.1016/j.bpsc.2023.07.014>

PMID: 37567363, Impact Factor = 6.0

2023 2. **Upton, S**., Brown, A. A., Golzy, M., Garland, E. L., & Froeliger, B. (2023). Right inferior frontal gyrus

theta-burst stimulation reduces smoking behaviors and strengthens fronto-striatal-limbic resting-state

functional connectivity: a randomized crossover trial. *Frontiers in psychiatry*, *14*, 1166912.

<https://doi.org/10.3389/fpsyt.2023.1166912>

PMID: 37457779, PMCID: PMC10338839, Impact Factor = 5.4

2023 1. Brown, A. A., **Upton, S**., Craig, S., & Froeliger, B. (2023). Associations between right inferior frontal

gyrus morphometry and inhibitory control in individuals with nicotine dependence. *Drug and alcohol*

*dependence*, *244*, 109766. <https://doi.org/10.1016/j.drugalcdep.2023.109766>

PMID: 36640686, PMCID: PMC9974751, Impact Factor = 4.9

**Presentations** (\* = undergraduate mentee)

***Posters***

2024 (submitted) Malaker, P., **Upton, S.,** & Froeliger, B. The Role of Negative Affect in the Association Between Right Inferior Frontal Gyrus Morphometry and Inhibitory Control in Individuals with Nicotine Dependence. MU. Health Sciences Research Day. November 2024.

2024 Vlasak, D., **Upton, S**., & Froeliger, B. Depressive Symptoms Predict Treatment Response to Noninvasive Brain Stimulation in Cigarette Smokers. MU Undergraduate Research and Creative Achievements Forum. MU. July 2024

2024 Martin E, **Upton, S**., Nowling B, Froeliger B, Gray K, & McRae-Clark A. Mesocorticolimbic

Functional Activation is Associated with Abstinence from Cannabis in a Pilot Trial of Varenicline for

Cannabis Use Disorder. College on Problems of Drug Dependence. Montreal, Qubec. May 2024.

2024 Bushnell K\*, **Upton, S**., & Froeliger B. Associations Between Emotion Dysregulation and Regional Gray

Matter Volume in Cigarette-Dependent Smokers. Spring MU Undergraduate Research and

Creative Achievements Forum, MU. April 2024.

2023 Cofresí, R.U., **Upton, S.**, Rodgers M, Brown AA, Ebada R, Piasecki TM, Bartholow BD, and Froeliger B. *Corticolimbic Hyperreactivity to Alcohol Cues Among People at Elevated Risk for Alcohol Use Disorder*. SFN. November 2023.

2023 **Upton, S.**, Cofresí RU, Rodgers M, Brown AA, Ebada R, Piasecki TM, Bartholow BD, and Froeliger B. *Individuals with Low Sensitivity to Alcohol Exhibit Dysregulated Inhibitory Control Task Performance and Neural Circuit Function: A Pilot fMRI Study*. SFN. November 2023.

2023 Oliver B, **Upton, S.**, Anguah K. *Neural Activity and Relationship with Food Cravings During*

*a 4-Week Fiber Intervention*. Obesity Week. Dallas Texas. October 2023.

2023 **Upton, S.**, Cofresí RU, Rodgers M, Brown AA, Ebada R, Piasecki TM, Bartholow BD, and Froeliger B. *Inhibitory Control Performance and Circuit Function During an fMRI GoGo/NoGo (GGNG) Task As A*

*Function of Self-Reported Alcohol Sensitivity: A Pilot Study*. RSA. June 2023.

2023 C. Willett\*, **Upton, S.**, & B. Froeliger. *Associations Between Self-Reported Cognitive Reappraisal,*

*Smoking Behaviors, and Resting-State Functional Connectivity in Adults with Tobacco Use Disorder*.

Spring MU Undergraduate Research and Creative Achievements Forum, MU. April 2023.

2023 **Upton, S.**, A. Brown, M. Ithman, R. Newman-Norlund, G. Sahlem, E. Garland, J. Prisciandaro, E. A. McClure, & B. Froeliger*. Hyperdirect Pathway Theta-Burst Stimulation Improves Inhibitory Control and Reduces Cigarette Craving and Smoking in Adults with Tobacco Use Disorder*. MU. Brain Science

Symposium. January 2023.

2023 A. Brown, **Upton, S.**, S. Craig, & B. Froeliger. *Associations between right inferior frontal gyrus morphometry and inhibitory control in individuals with nicotine dependence*. MU. Brain Science

Symposium. January 2023.

2022 **Upton, S.**, A. Brown, M. Ithman, R. Newman-Norlund, G. Sahlem, E. Garland, J. Prisciandaro, E. A. McClure, & B. Froeliger. *Continuous Theta-Burst Stimulation to The Hyperdirect Pathway Improves Inhibitory Control and Reduces Smoking Behaviors in Adults with Nicotine Dependence*. MU. Health

Sciences Research Day. November 2022.

2022 A. Brown, **Upton, S.**, S. Craig, & B. Froeliger. *Associations Between Right Inferior Frontal Gyrus Morphometry, Cognitive Control, and Smoking Dependence Motives in Individuals with Nicotine Dependence*. SFN. November 2022.

2022 **Upton, S.**, A. Brown, M. Ithman, R. Newman-Norlund, G. Sahlem, E. Garland, J. Prisciandaro, E. A. McClure, & B. Froeliger. *Effects of Theta-Burst Stimulation of the Hyperdirect Pathway on Inhibition, Craving and Tobacco Smoking*. SFN. November 2022.

2022 S. Teng\*, A. Brown, **Upton, S.**, S. Craig, D. Terry, & B. Froeliger. *Maladaptive Cognitive Emotion Regulation Strategies: Exploring the Behavioral and Neural effects of Smoking and Depression Comorbidity*. Summer MU Undergraduate Research and Creative Achievements Forum. MU. July 2022

2022 Cofresí, RU., **Upton, S.**, Rodgers, M., Ebada, R., Brown, A., Piasecki, TM., Froeliger, B., & Bartholow, BD. *Alcohol Sensitivity Moderates Alcohol Cue Reactivity in Anterior Insula and Medial Prefrontal Cortex: An fMRI Pilot Study*. RSA. June 2022

2022 Park\*, JE., Brown, A., Craig, S., & Froeliger, B., & **Upton, S.** *Structural Correlates of Emotional and Cognitive Dysregulation: Implications for Posterior Default Mode Network*. Spring MU Undergraduate Research and Creative Achievements Forum, MU. April 2022

2022 **Upton,** **S.,** & Froeliger, B. *Effects of Theta-Burst Stimulation on Functional Connectivity, Craving, and Cigarette Smoking*. SRNT. Baltimore Maryland. March 2022

2022 Froeliger, B., **Upton, S.**, Brown, A., Newman-Norlund, R., Sahlem, G., & Ithman, I. *Effects of TBS on Neural Mechanisms Mediating Inhibitory Control and Smoking Relapse Vulnerability*. SRNT. Baltimore

Maryland. March 2022

2021 Krawczak\*, R., Resto, O., Strege, M., **Upton, S.**, D’Andrea, W., & Siegle, G. *Differences in Fractional Amplitude of Low-Frequency Fluctuation Between Secure and Insecure Attachment*. ABCT 55th Annual

Convention. Nov 2021

2021 Weir\*, S., **Upton, S.**, Craig, S., & Froeliger, B. *Emotional Dysregulation in Tobacco Use Disorder: A Potential Treatment*. Summer MU Undergraduate Research and Creative Achievements Forum. MU. July 2021

2021 Kopachick\*, C., **Upton, S.**, Craig, S., & Froeliger, B. *Explaining Relapse Vulnerability in Tobacco Use Disorder: Inhibitory Control and Emotion Regulation*. Summer MU Undergraduate Research and Creative Achievements Forum, MU. July 2021

2016 **Upton,** **S.,** and & Boerger, E. *How Affective State Affects Level of Compassionate Emotion*. Internal poster session within the Department of Psychology. Slippery Rock University. Nov 2016

***Orals***

2024 (Upcoming) **Upton. S.** Using Connectome-based Predictive Modeling for Mapping Validated Brain-

Behavior Relationships. MU. September 2024. *Addiction Sem*.

2024 (Upcoming) **Upton. S.** Using Connectome-based Predictive Modeling for Mapping Validated Brain-Behavior Relationships. MU. September 2024. *C&N Sem*.

2024 Shitta-Bey, Y., Robin, A., **Upton, S.,** & Froeliger, B. Effects of Yoga Training on Mindfulness and Self-Efficacy. MU Undergraduate Research and Creative Achievements Forum. MU. July 2024

2024 **Upton. S**., Regulation of Craving and Underlying Resting-State Functional Connectivity are Associated with Smoking Lapse. MU. March 2024. *C&N Sem*.

2023 **Upton. S**. Associations Between Down-Regulation of Craving Performance and Underlying Resting-

State Neural Circuitry on Smoking Lapse: A Data-Driven Analysis on Adult Nicotine-Dependent

Cigarette Smokers. MU. November 2023. *Addiction Sem*.

2022 **Upton. S**. A Potential New Treatment for Smoking Cessation: Continuous Theta-Burst Stimulation to the Right Inferior Frontal Gyrus Improves Inhibitory Control and Reducing Cigarette Craving and Consumption in Adult Smokers. Oral presentation for Cognition and Neuroscience Seminar in the Department of Psychological Sciences. MU. October 2022. *C&N Sem*.

2020 **Upton. S.**, Barrett M, and Rauschecker J. The Early Blind Use Their Occipital Cortex for Higher-Order Language Functions: Semantics and Syntax. Virtual Symposium for Graduate Research in the Department of Neuroscience. GU. May 2020

**Teaching Experiences**

Fall 2022 Psych3351: Positive Motivation (Assistant to Dr. Kennon Sheldon)

Fall 2022 Psych 3160: Perception and Thought (Teaching Assistant to Dr. Clintin Davis-Stober

April 2022 MRI Workshop Series, Cognitive Neuroscience Systems (CNS) Core Facility

(fMRI series lecturer; 4 sessions, each lasting 1.5 hours)

**Mentorship**

Sum 24 Yewande Shita-Bey. MU ARTS. Florida International University

Sum 24 Dylan Vlasak. MU ARTS. Colgate University

Spring 23 Katherene Osei-Boadi Anguah. MU Assistant Professor

Sum 22 Jiawen (Stephanie) Teng. MU ARTS. Williams College

Sum 22-Spr 24 Kate Bushnell. Undergraduate Researcher. MU

Dec 21-May 23 Chloe Willett. Undergraduate Researcher. MU

Oct 21-Dec 21 Roberto Cofresí. Ph.D. Post-doctoral Researcher. MU

June 21-Sum 22 Jee Eun (Jenny) Park. Undergraduate Researcher. MU

Sum 21 Seth Weir. MU ARTS Intern. Indiana Purdue University

Sum 21 Claire Kopachik. MU ARTS Intern. Grinnell College.

**References**

**Dr. Brett Froeliger, Ph.D.**

University of Missouri, Columbia

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**Dr. Jennifer Willford, Ph.D.**

Slippery Rock University

Professor, Department of Psychology

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