Vaughn R. Steele, Ph.D.

September 2026

Yale University
School of Medicine
Department of Psychiatry
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Hartford, CT 06106
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Current Positions:

2020-Present Assistant Professor (ladder-track), Yale University, School of Medicine, Department of Psychiatry

2020-Present Director of The Steele Lab, Olin Neuropsychiatry Research Center, Institute of Living, Hartford Hospital

Other Affiliations:

2020-Present Division of Addictions at Yale, Yale School of Medicine
2020-Present Psychology Section, Yale School of Medicine
2021-2023 Janeway Society, Yale School of Medicine
2023-Present Center for Brain and Mind Health, Yale School of Medicine

Research Positions Held:

2011-2014 Postdoctoral Fellow – The Nonprofit Mind Research Network
A subsidiary of Lovelace Biomedical and Environmental Research Institute

2014-2015 Assistant Professor of Translational Neuroscience (non-tenure-track; soft money) – The Nonprofit Mind Research Network; A subsidiary of Lovelace Biomedical and Environmental Research Institute

2015-2019 Postdoctoral Fellow (Intramural Research Training Award) – National Institute on Drug Abuse

2018-2019 Postdoctoral Fellow in the Center on Compulsive Behaviors – National Institutes of Health

Educational History:

2004 B.A., magna cum laude in psychology, University of Minnesota, Department of Psychology, Minneapolis, Minnesota

2011 Ph.D., in cognitive and biological psychology, University of Minnesota, Department of Psychology, Minneapolis, Minnesota

Awards and Honors:

2003 Waller Scholarship, University of Minnesota
Annually awarded to only 75 undergraduate students based on academic merit

2003-2009 Gough awards for Graduate Travel, Department of Psychology, University of Minnesota

2004 Graduated *Magna Cum Laude* in Psychology, University of Minnesota

2004 Information Technology Fellow from the College of Liberal Arts, University of Minnesota.

2006 Tursky student poster award winner, Society for Psychophysiological Research Annual Meeting, Vancouver, BC Canada.

2007 Graduate Research Partnership Program Fellowship, College of Liberal Arts and Office of the Dean of the Graduate School and Vice President for Research, University of Minnesota.

2009 Student travel award winner, Society for Psychophysiological Research Annual Meeting, Berlin, Germany.

2010	NeuroImage Editors' Choice Award Winner, 2010
2013	Selected as Society for Neuroscience's "Hot Topic in Neuroscience"
2016	Young Investigator Award presented by the University of Rochester Institute of Neuromedicine and the Silvio O. Conte Center
2018	Center on Compulsive Behaviors (CCB) Postdoctoral Fellowship. The CCB funds outstanding NIH postdoctoral fellows at the intramural research program.
2019	Society of Biological Psychiatry Travel Fellowship Award. Selection criteria include past excellence in scholarly work, potential for scholarly growth in biological psychiatry and clinical neuroscience, and overall excellence.
2020	Early Career Investigator Showcase (ECIS) awardee from the joint National Institute on Drug Abuse and National Institute on Alcohol Abuse and Alcoholism mini convention. ECIS highlights 8 early-stage investigators to present their program of research.
2021	Jim Bowers Research Fund Award awarded by Hartford Hospital for outstanding research applications.
2022	Jim Bowers Research Fund Award awarded by Hartford Hospital for outstanding research applications.
2024	Selected for Top 5 IH abstracts session and awarded 2nd place research award at the American Society of Metabolic and Bariatric Surgery annual meeting.
2025	Selected for "Big Ideas" symposium at the Society for Psychophysiological Research annual meeting.
2025	Awarded Neuropsychopharmacology Editors' Award for a Transformative Original Report (NEATOR) which is an annual award given to the top original research paper published in the journal Neuropsychopharmacology during the previous year, recognizing a truly transformative report in the field of neuropsychopharmacology.

Grants:

Ongoing Research Support

Center for Brain and Mind Health (CBMH) (PI: Steele, Tseng) 9/1/2024-6/30/2026
CBMH Pilot Award $175,000 direct

Targeting fronto-striatal neural circuitry using repetitive transcranial magnetic stimulation to reduce irritability

Irritability is debilitating to affected individuals and families, to communities, and to the behavioral and mental health system. This project will provide important preliminary behavioral and fMRI data to support fronto-striatal circuitry as the neural circuitry of frustration processing and regulation that could be modulated with rTMS as a treatment. Results will have broad impact, informing development of evidence-based preventions and interventions for many psychiatric disorders, given the transdiagnostic nature of irritability.

R21 1DA058713 (MPI: Crowley, Potenza, Steele) 7/1/2024-6/30/2026
NIH NIDA $247,875 direct

Examination of potential effectiveness of transcranial direct current stimulation (tDCS) paired with reappraisal training for Cannabis Use Disorder

The goal of this work is to examine if transcranial direct current stimulation (tDCS), paired with training in the emotional regulation strategy of reappraisal, may enhance regulation of craving (measured with self-report and EEG) in individuals with Cannabis Use Disorder (CUD) and result in clinical reduction of cannabis use as measured by ecological momentary assessment (EMA). Sixty participants with CUD will be randomized to either real or sham DLPFC stimulation in 5 20-minute TDCS and reappraisal training sessions one week apart using a double-blind design, with EEG sessions at the first and final visit, and participants will report daily cannabis use with EMA. Findings will serve important proof-of-concept data on the clinical effectiveness of tDCS as an augment for CUD treatment.

Role: MPI

R01MH132044 (MPI: Assaf, Steele) 8/1/2023-5/31/2028
NIH NIMH $2,491,635 direct
Modulating temporoparietal junction mentalizing-related activity in autism spectrum disorder using transcranial magnetic stimulation

A core characteristic of autism spectrum disorder (ASD) is a deficit in mentalizing (our ability to create mental representations of others). This project will delineate the mechanistic effects of inhibitory vs. excitatory repetitive transcranial magnetic stimulation (rTMS) of the right temporo-parietal junction (TPJ), specifically in modulating mentalizing task-related (MTR) neural activity (measured with functional magnetic resonance imaging) in adults diagnosed with ASD compared to matched controls. Our rTMS manipulation, administered in a double-blind, counterbalanced fashion, includes one session each of excitatory (intermittent theta-burst stimulation, iTBS), inhibitory (continuous TBS, cTBS), and sham sequences. The rTMS will be guided with individualized electric-field modeling calculated from a structural MRI scan collected on the baseline session.
Role: MPI

Previous Research Support

Hartford Hospital Research Foundation (PI: Steele) 9/1/2024-8/31/2025
Anti-epileptic, not anti-TMS? Efficacy of transcranial magnetic stimulation in an opioid use disorder sample prescribed gabapentin $9,989 direct

The opioid overdose crisis continues to devastate many worldwide, and current treatments are not sufficient to stem its tide. By modulating dysregulated circuits present in opioid use disorder (OUD), rTMS holds great promise as an adjuvant treatment for OUD. Although preliminary results of rTMS's efficacy modulating neuroplasticity in individuals receiving methadone to treat OUD (MOUD) are promising, understanding of rTMS's efficacy in MOUD taking gabapentin remains limited. Evaluating rTMS's efficacy in MOUD is essential to building a more robust understanding as to how rTMS could treat OUD.

K12 DA000167 (M-PI: Potenza, O'Malley) 8/1/2022 – 7/31/2025
NIH NIDA
Clinician Scientist Training Program

The Division of Substance Abuse, Department of Psychiatry at Yale University School of Medicine supports up to 3 scholars through their NIDA-funded Clinician Scientist Training Program. This program provides intensive training in research methods for clinical and translational investigation of drug abuse. The multidisciplinary, translational program enables research that moves rapidly in both directions from preclinical projects ("bench") to clinical studies ("bedside"). The training goal for this program is to provide Clinical Scientist Scholars at the junior faculty level with an opportunity to devote virtually full-time effort during the initial phase of their careers to learning research skills and conducting research projects as a critical step toward launching careers as independent research scientists. This is accomplished by offering salary support to Clinical Scientist Scholars and moderate research funds to support pilot studies to develop meritorious research proposals.
Role: Clinical Scientist Scholar (Partial Salary support 8/1/22-12/31/24)

Hartford Hospital Research Foundation (PI: Bond) 9/1/2022-8/31/2023
Can transcranial magnetic stimulation decrease food reinforcement among surgical weight loss-seeking adults who have high levels of hedonic hunger and responsivity to food cues? $14,919 direct

Bariatric surgery is the most effective obesity treatment, although there is substantial individual variability in weight and health outcomes. Bariatric patients who have a strong drive to eat in response to the reward of palatable foods are more likely to overeat and experience suboptimal weight outcomes. This at-risk patient subgroup may benefit from transcranial magnetic stimulation (rTMS), a non-invasive brain stimulation technique that has shown promise for reducing cravings and consumption of addictive drugs and food. This study tests whether rTMS can reduce the reinforcing value of a palatable food (relative to money) among

patients seeking bariatric surgery who have high levels of hedonic hunger and disinhibition as measured with self-report and electroencephalography (EEG).
Role: Co-I

KL2 TR001862-08 8/1/2022-7/31/2024
NIH NCATS $50,000 direct
Yale Center for Clinical Investigation – Scholar Award (PI: Steele)
Testing malleability of executive control processes measured with event-related potentials in a sample prescribed methadone for opiate use disorder

This project examines neuromodulation of dysregulated circuits in opioid use disorder (OUD) as a potential efficacious treatment. Event-related potentials during executive control processes are measured before and after an acute excitatory session of transcranial magnetic stimulation (TMS). We assess whether TMS induces change in executive control processes.
Role: PI

Brain and Behavior Research Foundation Young Investigator Grant (PI: Steele) 1/15/2022-1/14/2024
Circuit-Based Transcranial Magnetic Stimulation in Opiate Dependent Individuals $69,722 direct

This project examines neuromodulation of dysregulated circuits in opioid use disorder (OUD) as a potential efficacious treatment. Magnetic resonance imaging is measured before and after an acute excitatory or inhibitory session of transcranial magnetic stimulation (TMS). We probe cue-reactivity and executive control and assess neuroplastic change induced by the two TMS sequences.
Role: PI

Hartford Hospital Research Foundation (PI: Gruner) 7/18/2021-7/17/2022
Transcranial Magnetic Stimulation of the Orbitofrontal Cortex in Obsessive Compulsive Disorder $19,173 direct

Transcranial magnetic stimulation applied as an acute therapeutic to orbitofrontal cortex (BA10) in individuals with obsessive compulsive disorder (OCD) is examined. Magnetic resonance imaging is measured after an acute inhibitory or excitatory theta-burst stimulation session to identify specific neuromodulation parameters for effectively treating OCD. Results from this proof-of-concept study will help develop larger clinical trials to develop a neuromodulation intervention for OCD.
Role: Co-I

Hartford Hospital Research Foundation (PI: Steele) 9/10/2020-9/09/2023
Modulation of Circuits in an Opioid Use Disorder Sample $17,573 direct

This project examines neuromodulation of dysregulated circuits in opioid use disorder (OUD) as a potential efficacious treatment. Magnetic resonance imaging is measured before and after an acute active or sham session of intermittent theta-burst stimulation session to identify malleable circuits related to OUD. Several cognitive functions will be probed during this study, including: affective processing, cue-reactivity, and executive control. Larger clinical trials will be designed based on the outcome of this initial trial.
Role: PI

K12 DA000167 (M-PI: Potenza, O'Malley) 8/1/2019 – 7/31/2022
NIH NIDA
Clinician Scientist Training Program

The Division of Substance Abuse, Department of Psychiatry at Yale University School of Medicine supports up to 3 scholars through their NIDA-funded Clinician Scientist Training Program. This program provides intensive training in research methods for clinical and translational investigation of drug abuse. The multidisciplinary, translational program enables research that moves rapidly in both directions from preclinical projects ("bench") to clinical studies ("bedside"). The training goal for this program is to provide Clinical Scientist Scholars at the junior faculty level with an opportunity to devote virtually full-time effort during the initial phase of their careers to learning research skills and conducting research projects as a critical step toward launching careers as independent research scientists. This is accomplished by offering salary support to Clinical

Scientist Scholars and moderate research funds to support pilot studies to develop meritorious research proposals.
Role: Clinical Scientist Scholar (Partial Salary support 1/1/20-7/31/22)

NIH: Center on Compulsive Behaviors (PI: Steele) 9/1/2018-8/31-2019
Postdoctoral Fellowship $40,000 direct
Competitive Renewal 9/1/2019-1/1/2020
$30,000 direct

Using Theta-Burst Stimulation as a Treatment to Reduce Cocaine Use Disorder

Intermittent theta-burst stimulation (iTBS) applied over the left-dorsolateral prefrontal cortex will be assessed as an efficacious treatment in a fully double-blind, placebo control randomized clinical trial. All cocaine dependent participants will receive contingency management and be assigned to receive either active or placebo iTBS over a 2-week treatment regimen. Magnetic resonance imaging assessing of structural, diffusion tensor imaging (DTI), functional connectivity (e.g., resting state measures), arterial spin labeling (ASL), magnetic resonance spectroscopy (MRS) and functional magnetic resonance imaging assessing cognitive and affective processes including cue reactivity, reward processing, and executive control will be collected at several time points. First, during an initial characterization phase prior to the initiation of the iTBS. Second, before and after the iTBS is administered on the first day of treatment. Third, on two separate days post-treatment. This method allows specific comparisons of the neuroplastic changes related to acute and chronic iTBS administration. These neuroplastic changes will be related to change in cocaine use behaviors collected over the 6-month follow-up post-treatment.
Role: PI

NSF: EPSCoR OIA-1539067 (PI: Calhoun) 8/1/2015-7/31-2019
RII Track-2 FEC: Developmental Chronnecto-Genomics (Dev-CoG): A Next Generation Framework for Quantifying Brain Dynamics and Related Genetic Factors in Childhood $1,500,000/year direct
$5,858,211 total

The rapid development of the brain's network architecture during childhood provides an unprecedented opportunity to gain a more complete understanding of the role of oscillatory behavior and network connectivity in normal brain functioning and cognitive development. New Mexico, Nebraska, and Louisiana envision a consortium on developmental chronnecto-genomics (Dev-CoG) whose overarching goal is to advance understanding of childhood brain connectivity by developing new analytic approaches to study connectivity over brief and extended periods of time (the chronnectome), via multiple neuroimaging modalities, and in turn determine how their genetic underpinnings further influence this developmental trajectory.
Role: Faculty (Role declined due to accepting an intramural position at the National Institute on Drug Abuse)

Professional Service:

2003-2004	President of Psi Chi, University of Minnesota
2006-2008	Center for Cognitive Sciences Retreat Committee, University of Minnesota
2006	Supervised APA Summer Institute for Undergraduates, University of Minnesota
2006-2007	Presentation for College in the Schools Program, University of Minnesota
2007	Supervised Undergraduate Research Experience Program students, University of Minnesota
2007-2008	Program Committee Representative Society for Psychophysiological Research Committee to Promote Student Interests
2008-2012	Chair, Newsletter Subcommittee Society for Psychophysiological Research Committee to Promote Student Interests
2011-2014	Youth Science Liaison, The Mind Research Network
2011-2015	Postdoctoral/Early Career Subcommittee Member Society for Psychophysiological Research Committee to Promote Student Interests

2016 Chair and Organizer
National Institute on Drug Abuse Special Interest Group – Network Connectivity

2017-2018 Chair and Organizer
National Institute on Drug Abuse Special Interested Group – Neuromodulation

2017-2019 Supervised Intramural Research Training Award postbaccalaureate fellow, National Institute on Drug Abuse

2017 Supervised Summer Internship Program fellow, National Institute on Drug Abuse

2018 Supervised Summer Internship Program fellow, National Institute on Drug Abuse

2019 Chair and Organizer
NIH/NIDA Summer Journal Club – Neuroimaging of Addiction

2020-Present Chair and Organizer
Olin Neuropsychiatry Research Center Junior Investigator Lunch

2021-2023 Yale School of Medicine Anti-Racism Task Force
Faculty Development Subcommittee member

2021-Present Chair and Organizer
Olin Neuropsychiatry Research Center Journal Club and Seminar Series

2021-Present Committee Member
Zero Opioid Overdose Deaths, Behavioral Health Network, Hartford Hospital

2021-Present Committee Member
Clinical Issues for SUD treatment, Behavioral Health Network, Hartford Hospital

2022-2025 Co-Director Division of Addictions at Yale Seminar, Yale School of Medicine

2023-2024 Center for Brain and Mind Health Search Committee Member

2024-2025 Program (2025) Committee Member
Society for Psychophysiological Research

Professional Development:

2022-Present Leadership Forum with the Senior Vice President of Harford HealthCare

2022-2025 Research Opportunities for Clinical and Translational Studies

2022-2025 Interdisciplinary Teamwork in Translation

Teaching Experience:

University of Minnesota, Minneapolis, Minnesota:

2003 Teaching assistant, Psych 4801: *Introduction to Statistics*

2003-2004 Teaching assistant, Psych 1001: *Introduction to Psychology*

2003-2011 Undergraduate directed research supervisor (supervised 2-4 undergraduates per semester)

2004-2007 Section leader, Psych 3005W*: *Introduction to Research Methods and Statistics*

2006 Teaching assistant, Psych 5606: *Clinical Psychophysiology* (Graduate Level)

2007-2009 Teaching assistant, Psych 3051: *Introduction to Cognitive Psychology*

2007-2011 Section leader, Psych 3001W*: *Introduction to Research Methods*

2009 Teaching assistant, Psych 5015: *Cognition, Computation, and Brain* (Graduate Level)

2010 Teaching assistant, Psych 5054: *Psychology of Language* (Graduate Level)

2010-2011 Teaching assistant, Psych 4994V*: *Honors Research Practicum*

* Denotes Writing Intensive Course

University of New Mexico, Albuquerque, New Mexico:

2012 Lecturer, Psych 650: Introduction to Clinical Neuroscience

2013 Lecturer, Psych 650: Contemporary Topics in Psychology, Neuroscience, and Law

Institute of Learning, Hartford, Connecticut:

2025 Lecturer, PG2/3 Seminar Series – Neuroscience

Students Mentored:

J. Michael Maurer (2011-2018) as a graduate student at the University of New Mexico.

Aaron Centeno (2013-2014) as an undergraduate honors student at the University of New Mexico.

Samantha Fede (2013-2015) as a graduate student at the University of New Mexico.

Julia Lushing (2013-2015) as a graduate student at the University of New Mexico.

Andrea Maxwell (2017-2019) as a postbaccalaureate fellow at NIH/NIDA.

Constance Chen (2017) as part of the NIH/NIDA Summer Fellowship Program.

Katherine Barranco (2018) as part of the NIH/NIDA Summer Fellowship Program for Under-Represented Populations.

Amy Kwarteng (2019) as a postbaccalaureate fellow at NIH/NIDA.

Hannah Olson (2020-2021) as postbaccalaureate research assistant at Hartford Hospital.

Alyssa Michel (2021-2025) as an undergraduate research volunteer at Yale University.

Hanxiao Lu (2021-2022) as postbaccalaureate clinical research assistant at Hartford Hospital.

Ryan Murphy (2021-2022) as postbaccalaureate research volunteer at Hartford Hospital.

Seba Gabali (2021-2023) as postbaccalaureate clinical research assistant at Hartford Hospital.

Patrick Fang (2022-2024) as postbaccalaureate clinical research assistant at Hartford Hospital.

Evan Stock (2022) as postbaccalaureate research volunteer at Hartford Hospital.

Kira Gresser (2022-2025) as postbaccalaureate clinical research assistant at Hartford Hospital.

Dongyu Kang (2023) as visiting scholar through Yale University.

Dongyu Kang (2023-present) as post-doctoral fellow, Hartford Hospital.

Guo Yu (2023-present) as postbaccalaureate research volunteer at Hartford Hospital.

Cecelia Petrarca (2024-present) as postbaccalaureate clinical research assistant at Hartford Hospital.

Sofia Trujillo (2024-2025) as postbaccalaureate clinical research assistant at Hartford Hospital.

Jesse Charpentier (2025-present) as postbaccalaureate clinical research assistant at Hartford Hospital.

David Gingold (2025) as postbaccalaureate research volunteer at Hartford Hospital.

Jack Carr (2025-present) as postbaccalaureate clinical research assistant at Hartford Hospital.

Kaitlyn Giedra (2025-present) as postbaccalaureate research volunteer at Hartford Hospital.

Anne Uhm (2026-present) as post-graduate assistant at Yale University.

Journal Editing:

Guest Editor (2023): Frontiers in Neuroscience: Neural Technologies
New Discoveries in the Field of Brain Stimulation and Addiction Disorders

Guest Editor (2024): Frontiers in Psychiatry: Neurostimulation
Insights in Neurostimulation

Ad Hoc Reviewer:

Funding Agencies

2016 National Science Centre, Poland

2021 National Institutes of Health, Addiction Risks and Mechanisms (ARM) Study Section Early Career Reviewer

2021 Medical Research Council, United Kingdom Research and Innovation, United Kingdom

2022 National Institutes of Health, Addiction Risks and Mechanisms (ARM) Study Section Early Career Reviewer

2023 Department of Defense, Uniformed Services University of Health Sciences Multi-Domain Operations Research Special Emphasis Panel

2024 National Institutes of Health, Clinical Neurophysiology, Devices, Neuroprosthetics and Biosensors Small Business Panel

2025 Department of Veterans Affairs, Mental Health and Behavioral Sciences – PTSD (MHBP) Scientific Review Group

2026 National Institutes of Health, Psychopathology across the Lifespan Study Section

2026 Department of Veterans Affairs, Mental Health and Behavioral Sciences – PTSD (MHBP) Scientific Review Group

Journals

Acta Psychologica, Addiction, Addiction Biology, Addiction Neuroscience, Alcohol, The American Journal of Drug & Alcohol Abuse, American Journal of Preventative Medicine, The American Journal of Psychiatry, Biological Psychiatry, Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, Biological Psychology, BioMed Central-Psychology, Brain and Cognition, Brain Research, Brain Sciences, Cognitive Neurodynamics, Computer Methods and Programs in Biomedicine, Current Medical Imaging Reviews, Drug and Alcohol Dependence, EBioMedicine, European Neuropsychopharmacology, Frontiers in Neuroscience, Frontiers in Psychiatry, Frontiers in Psychology, The International Journal of Geriatric Psychiatry, The International Journal of Molecular Sciences, The International Journal of Neuropsychopharmacology, The International Journal of Psychophysiology, JAMA Psychiatry, Journal of Behavioral Addictions, Journal of Case Reports, Journal of Neurology and Translational Neuroscience, Journal of Psychiatry and Neuroscience, Journal of Science and Law, The Lancet – Psychiatry, The New England Journal of Medicine, NeuroImage, Neuropsychologia, Neuropsychopharmocology, Neuroscience, Neuroscience Letters, Personality Disorders: Theory, Research, and Treatment, PLOS One, Psychophmarmacology, Psychophysiology, Quantitative Imaging in Medicine and Surgery, Schizophrenia Research, The Scientific Pages of Addiction and Rehabilitation, Scientific Reports, Sensors

Pre-Conference Presentations:

1. Bernat, E. M., Aviyente, S., Malone, S., Nelson, L., **Steele, V. R.**, & Venables, N. C. (2009, Oct). Introduction to time-frequency analysis. Presented at the pre-conference to Society for Psychophysiological Research Annual Meeting, Berlin, Germany.

Posters:

1. Bernat, E. M., Marsolek, C. J., Collins, P. F., **Steele, V. R.,** Westerberg, C. E., van den Broek, P., & Patrick, C. J. (2004, April). Event-related potentials differentiate semantic processes contributing to inferences generated during comprehension. Presented at the Cognitive Neuroscience Society Annual Meeting, San Francisco, CA. Journal of Cognitive Neuroscience, 16. (Suppl.), 208-209.
2. Westerberg, C. E., **Steele, V. R.,** & Marsolek, C. J. (2004, April). The effects of presentation order on memory for semantically related words. Presented at the Cognitive Neuroscience Society Annual Meeting, San Francisco, CA. Journal of Cognitive Neuroscience, 16. (Suppl.), 106.

3. **Steele, V. R.,** Miller, J. Marsolek, C. J., & Westerberg, C. E. (2004, April). Reduced sensitivity in false memory: A word order effect. Presented at the Psi Chi Midwestern Regional Convention, Chicago, IL. Midwestern Psychological Association, (Suppl.), 108.
4. Collins, P. F., Bernat, E. M., Venables, N., **Steele, V. R.,** Oakland, S., Lang, A. R., & Patrick, C. J. (2004, October). Effects of alcohol on event-related potentials elicited during an affective novelty-P3 task. Presented at the Society for Psychophysiological Research Annual Meeting, Santa Fe, NM. Psychophysiology, 41 (Suppl.), 40.
5. Collins, P. F., Bernat, E. M., Venables, N., **Steele, V. R.,** Oakland, S., Lang, A. R., & Patrick, C. J. (2004, October). Effects of alcohol on event-related potentials elicited by monetary gains and losses. Presented at the Society for Psychophysiological Research Annual Meeting, Santa Fe, NM. Psychophysiology, 41 (Suppl.), 40.
6. **Steele, V. R.,** Collins, P. F., Bernat, E. M., Lando, E. A., H., Marsolek, C. J., Lang, A. R., & Patrick, C. J. (2004, October). Effects of alcohol on event-related potentials elicited during an inference-based comprehension task. Presented at the Society for Psychophysiological Research Annual Meeting, Santa Fe, NM. Psychophysiology, 41 (Suppl.), 41.
7. **Steele, V. R.,** Marsolek, C, J., Bernat, E. M., Collins, P. F., Lando, E. A. H., Venables, N. C., van den Broek, P., Lang, A. R., & Patrick, C. J. (2005, April). Does alcohol intoxication affect comprehension? An event-related potential investigation. Presented at the Cognitive Neuroscience Society Annual Meeting, New York, NY. Journal of Cognitive Neuroscience, 17 (Suppl.), 171.
8. Deason, R. G., **Steele, V. R.,** Bernat, E. M., Patrick, C. J., Marsolek, C. J. (2006, April). Event-related potentials reveal differential timing for visual object priming and anti-priming. Presented at the Cognitive Neuroscience Society Annual Meeting, San Francisco, CA. Journal of Cognitive Neuroscience 18 (Suppl.), 192.
9. Dzafic, A., Schoeppner, W. L., Kim, J., **Steele, V. R.,** Scott, H., Bernat, E. M., & Patrick, C.J. (2006, October). Trait inhibitory control is associated with an enhanced early ERP response to no go stimuli. Presented at the Society for Psychophysiological Research Annual Meeting, Vancouver, BC Canada. Psychophysiology, 43 (Suppl.), 36.
10. Schoenppner, W. L., Kim, J., **Steele, V. R.,** Scott, H, Doa, A. T., Bernat, E. M., &, Patrick C. J. (2006, October). Cue modulated cognitive control inversely affects go and no go responses. Presented at the Society for Psychophysiological Research Annual Meeting, Vancouver, BC Canada. Psychophysiology, 43 (Suppl.), 88.
11. **Steele, V. R.,** Bernat, E. M., Collins, P. F., van den Broek, P., Patrick, C.J., & Marsolek, C. J. (2006, October). Conflict and resolution in semantic processing comprehension: An ERP time-frequency analysis. Presented at the Society for Psychophysiological Research Annual Meeting, Vancouver, BC Canada. Psychophysiology, 43 (Suppl.), 94.
12. **Steele, V. R.,** Bernat, E. M., Collins, P. F., van den Broek, P., Patrick, C.J., & Marsolek, C. J.(2007, March). Conflict and resolution in semantic processing comprehension: An ERP time-frequency analysis. Presented at Brain Mechanism and Cognitive Processes in the Comprehension of Discourse workshop, Lorentz Center, Lieden, The Netherlands.
13. Deason, R. G., **Steele, V. R.,** Bernat, E. M, Patrick, C. J., & Marsolek, C. J. (2007, June). Indexing early visual object priming with event-related potentials: A time-frequency analysis. Presented at the Organization for Human Brain Mapping Annual Meeting, Chicago, IL. NeuroImage, 36:1 (Suppl.), S84.
14. **Steele, V. R.,** Bernat, E. M., Collins, P. F., van den Broek, P., Patrick, C. J., & Marsolek, C. J. (2007, November). Separable electrophysiological effects underlie N400s elicited by new versus inferred information during comprehension. Presented at the Psychonomic Society Annual Meeting, Long Beach, CA, *12*, 51.

15. Deason, R. G., **Steele, V. R.,** Marsolek, C. J., & Koutstaal, W. (2008, May). FMRI repetition-related increases in parietal regions: Item-specific and semantic category effects. Presented at the Association for Psychological Science Annual Convention, Chicago, IL.
16. **Steele, V. R.,** Deason, R. G., Bernat, E. M., Patrick, C. J., Schnyer, D. M., & Marsolek, C. J. (2008, Oct). Early and late effects in event-related potentials differentiate visual object priming and antipriming. Presented at the Society for Psychophysiological Research Annual Meeting, Austin, TX. Psychophysiology, 45 (Suppl.), 23.
17. Blank, M. P., **Steele, V. R.**, Kittur, A., Bernat, E. M., Patrick, C. J., & Marsolek, C. J. (2009, Oct). An early ERP predictor of subsequent visually-specific memory for emotional scenes. Presented at the Society for Neuroscience Annual Meeting, Chicago, IL.
18. McMenamin, B. W., Deason, R. G., **Steele, V. R.**, Koutstaal, W., & Marsolek, C. J. (2009, Oct). Different neural coding for dissociable abstract-category and specific-exemplar object priming evidenced by fMRI analysis. Presented at the Society for Neuroscience Annual Meeting, Chicago, IL.
19. **Steele, V. R.**, Bernat E. M., Schoeppner, W. L., & Patrick, C. J. (2009, Oct). Using time-frequency analysis to disentangle processes in a cued Go/NoGo task. Presented at the Society for Psychophysiological Research Annual Meeting, Berlin, Germany. Psychophysiology, 46 (Suppl.)
20. Fink, B. C., **Steele, V. R.,** & Kiehl, K. A. (2013, April). Brain potentials predict substance abuse treatment completion in prison inmates. Poster presented at the Frist Annual New Mexico Research Exposition.
21. **Steele, V. R.**, Fink, B. C., & Kiehl, K. A. (2013, June). Predicting substance abuse treatment outcomes with psychopathy and event-related potentials in a Go/NoGo task. Presented at the Society for the Scientific Study of Psychopathy Biennial Meeting, Washington, D.C.
22. Bridwell, D. A., **Steele, V. R.,** Maurer, J. M., Kiehl, K. A., & Calhoun, V. D. (2015, June). The relationship between somatic and cognitive-affective depression symptoms and cognitive control. Presented at Organization for Human Brain Mapping Annual Meeting, Honolulu, Hawaii.
23. Fede, S. J., Schaich, J. **Steele, V. R.,** Harenski, C. L., Rao, V., Sinnott-Armstrong, W., Koenigs, M., Calhoun, V. D., Kiehl, K. A. (2015, June). Reduced limbic connectivity during moral judgment in psychopathy. Presented at the Society for the Scientific Study of Psychopathy Biennial Meeting, Chicago, IL.
24. Lushing, J. R., Neurman, C. S., **Steele, V. R.,** Maurer, J. M., Fede, S. J., & Kiehl, K. A. (2015, June). Testing a four-factgor parcel model of psychopathy and its relation to externalizing psychopathology in an incarcerated Hispanic male sample. Presented at the Society for the Scientific Study of Psychopathy Biennial Meeting, Chicago, IL.
25. Efferson, L. M., Aharoni, E., **Steele, V. R.,** & Kiehl, K. A. (2015, June). Gender differences in moral intuitions of psychopathic offenders. Presented at the Society for the Scientific Study of Psychopathy Biennial Meeting, Chicago, IL.
26. Montry, K. Simmonite, M., **Steele, V. R.,** Brook, M., Kiehl, K. A., & Kosson, D. (2015, June). Investigating the left hemisphere activation hypothesis: An electrophysiological study of the N320. Presented at the Society for the Scientific Study of Psychopathy Biennial Meeting, Chicago, IL.
27. **Steele, V. R.,** Claus, E. D., Fink, B. C., Maurer, J. M., Arbabshirani, M. R., Rao, V., Calhoun, V. D., & Kiehl, K. A. (2015, October). Functional magnetic resonance imaging measures of network connectivity related to incorrect responses predict completion of substance abuse treatment. Presented at the Society for Neuroscience Annual Meeting, Chicago, IL.
28. **Steele, V. R.,** Claus, E. D., Fink, B. C., Maurer, J. M., Arbabshirani, M. R., Rao, V., Calhoun, V. D., & Kiehl, K. A. (2015, October). Neural measures of incorrect responses predict completion of substance abuse treatment. Presented at the Greater Baltimore Chapter of Society for Neuroscience, Baltimore, Md.

29. Tootell, A., **Steele, V. R.,** Aviyente, S., Calhoun, V. D., & Bernat, E. M. (2016, April). Decreased salience and control activity during inhibitory processing in cocaine users indexed using EEG time-frequency measures. Presented at the Cognitive Neuroscience Society's Annual Meeting, New York, NY.
30. **Steele, V. R.,** Maxwell, A. M., Sutherland, M. T., Ross, T. J., Salmeron, B. J., & Stein, E. A. (2018, May). Acute nicotine abstinence decreases correlates of response inhibition diagnostic of relapse. Presented at the Society of Biological Psychiatry's Annual Meeting, New York, NY.
31. **Steele, V. R.,** Maxwell, A. M., Sutherland, M. T., Ross, T. J., Salmeron, B. J., & Stein, E. A. (2018, December). Acute nicotine abstinence decreases event-related potential correlates of post-error processing but not conflict resolution. Presented at the American College of Neuropsychopharmacology's Annual Meeting, Hollywood, FL.
32. **Steele, V. R.,** Maxwell, A. M., Ross, T. J., Salmeron, B. J., & Stein, E. A. (2019, February). Preliminary evidence for accelerated intermittent theta-burst stimulation as a treatment for cocaine use disorder. Presented at the Brain Stimulation Meeting, Vancouver, BC, Canada. Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation, 12(2), 574.
33. **Steele, V. R.** (2021, January). Machine learning identified therapeutic targets for transcranial magnetic stimulation as a treatment for cocaine use disorder. Presented at the early career investigator showcase as part of the joint National Institute on Drug Abuse and National Institute on Alcohol Abuse and Alcoholism mini-convention, held remotely.
34. **Steele, V. R.,** Tootell, A. V., Butler, D., Fix, T. S., Stevens, M. C., Pearlson, G. D., & Bernat, E. M. (2021, May). Response inhibition circuit dysregulation in substance use disorders identified with event-related potential-derived functional connectivity. Presented at the Society of Biological Psychiatry's Annual Meeting, help remotely.
35. **Steele, V. R.,** Tootell, A. V., Butler, D., Fix, T. S., Stevens, M. C., Pearlson, G. D., & Bernat, E. M. (2021, December). Elucidating automatic and controlled processes in addiction to identify a potential treatment target. Presented at the American College of Neuropsychopharmacology's Annual Meeting, San Juan, PR.
36. Fang†, P. H. Gresser, K., Kang, D. & **Steele, V. R.** (2024, May). Scratching the Itch: An Acute Neuromodulation Session Reduces Drug Craving in Methadone-Maintained Individuals. Presented at the Society of Biological Psychiatry's Annual Meeting, Austin, TX.
37. Gresser†, K. Fang, P. H., Kang, D., Stevens, M. C., & **Steele, V. R.** (2024, May). Individualizing neuromodulation of the dorsal striatum in methadone-maintained participants. Presented at the Society of Biological Psychiatry's Annual Meeting, Austin, TX.
38. Kang†, D., Gresser, K., Fang, P. H., Stevens, M. C., & **Steele, V. R.** (2024, May). Intermittent theta burst stimulation normalized error signals in the anterior cingulate cortex for individuals receiving methadone. Presented at the Society of Biological Psychiatry's Annual Meeting, Austin, TX.
39. Stam, H., van der Veen, F., **Steele, V. R.**, Franken, I. (2024, September). Tobacco smoking is associated with impaired error monitoring. Presented at the Society for Psychophysiological Research's Annual Meeting, Prague, Czech Republic.
40. Kang†, D., Gresser, K., Stevens, M. C., & **Steele, V. R.** (2024, December). Not all transcranial magnetic stimulation individualization efforts are equal in a Methadone-maintained opioid use disorder sample. Presented at the American College of Neuropsychoparmacology's Annual Meeting, Phoenix, AZ.
41. **Steele, V. R.,** Kang, D., Papasavas, P. K., Raynor, H. A., Grilo, C. M., Wu, Y., & Bond, B. S. (2025, February). Repetitive transcranial magnetic stimulation modulates neural correlates of reward in patients pursuing metabolic bariatric surgery: Results from a within-participant sham-controlled pilot study. Presented at the Brain Stimulation Meeting, Kobe, Japan.
42. **Steele, V. R.** (2025, February). Are we closer to addressing the opioid overdose crisis with repetitive transcranial magnetic stimulation? Presented at the Brain Stimulation Meeting, Kobe, Japan.

43. Assaf, M., Hyatt, C., Kang, D., Balderston, N., Pearlson, G., & **Steele, V. R.** (2026, January). Probing the Social Brain in Autism using Transcranial Magnetic Stimulation (TMS): Towards Optimized Treatment Strategies American College of Neuropsychopharmacology Annual Meeting, Nassau Bahamas.
44. Tseng, W-L., Kang, D., Trujillo, S., & **Steele, V. R.** (2026, January). Repetitive Transcranial Magnetic Stimulation (rTMS) targeting frontostriatal circuitry to reduce irritability. American College of Neuropsychopharmacology Annual Meeting, Nassau Bahamas.
45. Kang†, D., Hyatt, C., Balderston, N. L., Assaf, M., & **Steele, V. R.** (2026, April). Effect of Repetitive Transcranial Magnetic Stimulation on Functional Connectivity Targeting Right Temporoparietal Junction: A Randomized Double Blind Sham Controlled Crossover Study. Presented at the Society of Biological Psychiatry's Annual Meeting, New York City, New York.
46. **Steele, V. R.,** Carr, J. H., Kang, D., Charpentier, J., Trujillo, S., Li, F., Stevens, M. C., Alex, E. R., & Allen, J. C. (2026, April). A summer of rTMS in a residential treatment center offers support for a potential breakthrough in treating substance use disorders. Presented at the Society of Biological Psychiatry's Annual Meeting, New York City, New York.
47. Isberg, A., Krom, P., Smith, M. P., Kober, H., **Steele, V. R.**, Larkin, K., Thompson-Lake, D. G. Y., Lewis, J. W., Blank, M. D., Najib, U., Mahoney, J. J., & Cherkasova, M. V. (2026, April). Neural and Behavioral Correlates of Cognitive State Induction during a Smoking-Focused rTMS Intervention. Presented at the Society of Biological Psychiatry's Annual Meeting, New York City, New York.

† Denotes first-author mentee

Conference Presentations:

1. **Steele, V.R.,** Sponheim, S.R., & McGuire, K.A. (2003, March). Verbal memory in patients with schizophrenia and first-degree relatives of patients with schizophrenia. Presented at the National Conference on Undergraduate Research, Salt Lake City, Utah.
2. **Steele, V. R.,** Fink, B. C., Maurer, J. M., Arbabshirani, M. R., Sidz, A., Calhoun, V. D., Clark, V. P., & Kiehl, K. A. (2013, Nov). Event-related potential measures of incorrect responses predict completion of substance abuse treatment. Nanosymposia Presented at the Society for Neuroscience Annual Meeting, San Diego, CA. Selected as Society for Neuroscience's "Hot Topic in Neuroscience".
3. **Steele, V. R. (Symposium Chair)** & Calhoun, V. D. (Symposium Co-Chair; 2015, March). Approaches to identify network connectivity in neuroimaging. Mini-Symposium presented at the Cognitive Neuroscience Society's Annual Meeting, San Francisco, CA.
4. **Steele, V. R.,** Bernat, E. M., Calhoun V. D., & Kiehl, K. A. (2015, March). Neuroimaging measures of cognitive control: Extracting reliable signals. Mini-Symposium presented at the Cognitive Neuroscience Society's Annual Meeting, San Francisco, CA.
5. Calhoun, V. D., & **Steele, V. R.** (2015, March). The chronnectome: Time-varying connectivity networks as the next frontier in fMRI data discovery. Mini-Symposium presented at the Cognitive Neuroscience Society's Annual Meeting, San Francisco, CA.
6. Maurer†, J. M., **Steele, V. R.,** Fink, B. C., Vincent, G. M., Calhoun, V. D., & Kiehl, K. A. (2015, June). Dysfunctional error-related processing in psychopathic personality captured using interview-based assessments, not self-report measures. Presented at the Society for the Scientific Study of Psychopathy Biennial Meeting, Chicago, IL.
7. Widdows†, M. **Steele, V. R.,** Aharnoni, E., & Kiehl, K. A. (2015, June). Predicting recidivism using the Psychopathy Checklist-Revised and the Psychopathic Personality Inventory within a forensic sample. Presented at the Society for the Scientific Study of Psychopathy Biennial Meeting, Chicago, IL.

8. Kiehl, K. A., Lushing, J., **Steele, V. R.,** & Harenski, C. L. (2015, June). Brain imaging in female psychopathy. Presented at the Society for the Scientific Study of Psychopathy Biennial Meeting, Chicago, IL.
9. Anderson, N. E., **Steele, V. R.,** Maurer, J. M., & Kiehl, K. A. (2015, June). Dissociating emotion and attention to emotion in psychopathy. Presented at the Society for the Scientific Study of Psychopathy Biennial Meeting, Chicago, IL.
10. **Steele, V. R.,** Bernat, E. M., van den Broek, P., Collins, P. F., Patrick, C. J., & Marsolek, C. J. (2015, July). Reading what has been inferred: Electrophysiological evidence for dissociable processes. Presented at the Society for Text and Discourse Annual Meeting, Minneapolis, MN.
11. **Steele, V. R.** (2018, October). Advancements toward individualized medicine with machine learning classifiers in neuroscience. Presented at the Society for Psychophysiological Research Annual Meeting, Quebec City, Quebec, Canada.
12. **Steele, V. R.,** (2019, May). Developing treatment targets for substance use disorders with machine learning classifiers. Presented at the Society of Biological Psychiatry Annual Meeting, Chicago, IL.
13. **Steele, V. R.** (2021, January). Machine learning identified therapeutic targets for transcranial magnetic stimulation as a treatment for cocaine use disorder. Presented at the Early Career Investigator Showcase as part of the joint National Institute on Drug Abuse and National Institute on Alcohol Abuse and Alcoholism mini-convention, held remotely.
14. **Steele, V. R.** (**Symposium Chair**; 2021, June). Transcranial magnetic stimulation as an addiction therapeutic: Insights from clinical and preclinical studies. Symposium presented at The College on Problems of Drug Dependence Annual Meeting, held remotely.
15. **Steele, V. R.** (2021, June). Intermittent theta-burst stimulation as a treatment for cocaine use disorder: An exemplar for neuromodulation to treat substance use disorders. Presented at The College on Problems of Drug Dependence Annual Meeting, held remotely.
16. **Steele, V. R.** (2021, October). From a transcranial magnetic stimulation exemplar to a path forward for a substance use disorder therapeutic. Presented at The 3rd International Congress on XLVII National Conferences Socidrogalcohol, held remotely.
17. **Steele, V. R.** (**Symposium Chair**; 2022, April). Modulating cognitive systems in substance use disorders and co-occurring clinical diagnoses. Presented at the Society of Biological Psychiatry Annual Meeting, New Orleans, LA.
18. **Steele, V. R.** (2022, April). How an exemplar of chronic neuromodulation for cocaine use disorder is a path forward for treating substance use disorders. Presented at the Society of Biological Psychiatry Annual Meeting, New Orleans, LA.
19. **Steele, V. R.** (**Symposium Chair**; 2022, June). Event-related potentials and substance use disorders: Identifying clinically relevant metrics to inform therapeutics. Presented at The College on Problems of Drug Dependence Annual Meeting, Minneapolis, MN.
20. **Steele, V. R.** (2022, June). Identifying treatment targets related to dysregulated circuits in substance use disorders with event-related potential measures of response inhibition and error-monitoring. Presented at The College on Problems of Drug Dependence Annual Meeting, Minneapolis, MN.
21. Salmeron, B. J., **Steele, V. R.**, Stein, E. A. (2022, September). Evaluating iTBS as a treatment for cocaine use disorder. Presented at the Addiction 2022 conference: "Enlightening the addicted brain: Cells, circuits, and therapies". Villasimius, Italy.
22. **Steele, V. R.** (2022, September). Accelerated TBS sessions for addiction treatment. Presented at the Addiction 2022 conference: "Enlightening the addicted brain: Cells, circuits, and therapies". Villasimius, Italy.

23. **Steele, V. R.** (2022, September). Addressing "Known Unknowns" in the Application of Transcranial Magnetic Stimulation to Treat Substance Use Disorders: An Exemplar of Chronic Neuromodulation for Cocaine Use Disorder. Presented at the Society for Psychophysiological Research Annual Meeting. Vancouver, British Columbia, Canada.
24. **Steele, V. R.** (2023, September). Parameter space in optimization of non-invasive brain stimulation in addiction. Presented at the 5th Annual Brain Stimulation Conference. Lisbon, Portugal.
25. **Steele, V. R.** (2023, December). Circuit-Based Transcranial Magnetic Stimulation in Opioid Dependent individuals: Do We Know Who Will respond? Presented at the American College of Neuropsychopharmacology Annual Meeting. Tampa, FL.
26. Bond, D. S., **Steele, V. R.,** Wu, Y., Michalak, I., Mitchell, J. E., Pearlson, G. D., Stevens, M. C., Tishler, D., Papasavas, P.K. (2024, June). Evaluating importance of food wanting and liking in relation to number and severity of food addiction symptoms after sleeve gastrectomy. Oral presentation at American Society of Metabolic and Bariatric Surgery annual meeting, San Diego, CA. *Selected for Top 5 IH abstracts session and awarded 2nd place research award.
27. **Steele, V. R.** (**Symposium Chair**; 2024, June). Recent Steps Toward Individualization of Transcranial Magnetic Stimulation for Substance Use Disorders. Presented at The College on Problems of Drug Dependence Annual Meeting, Montreal, Canada.
28. **Steele, V. R.** (2024, June). Not All Transcranial Magnetic Stimulation Individualization Efforts Are Equal in a Methadone-Maintained Opioid Use Disorder Sample. Presented at The College on Problems of Drug Dependence Annual Meeting, Montreal, Canada.
29. Kang†, D., Stevens, M. L., & **Steele, V. R.** (2025, October). Neuromodulation Normalizes Both fMRI and ERP Measures of Error Processing in Opioid Use Disorder: A Potential Treatment Target. Presented at the Society for Psychophysiological Research Annual Meeting, Montreal, Quebec, Canada. *Selected for "Big Ideas" symposium.
30. **Steele, V. R.** (**Symposium Chair;** 2026, January). Beyond Craving: Application of Repetitive Transcranial Magnetic Stimulation Targeting Alternative Cognitive Functions is Safe and Effective in Substance Using Samples. American College of Neuropsychopharmacology Annual Meeting, Nassau Bahamas.
31. **Steele, V. R.,** Kang, D., Stam, H., Butler, D., Bernat, E. M., Franken, I., & Stevens, M. C. (2026, January). Error Processing is a Viable Cognitive Target for Neuromodulation in Substance Use Disorder. American College of Neuropsychopharmacology Annual Meeting, Nassau Bahamas.
32. **Steele, V. R.,** Allen, J. C., & Alec, E. R (2026, April). A Novel Application of Transcranial Magnetic Stimulation for Substance Use Disorders in a Residential Setting. Presented at the annual meeting from the National Council for Mental Wellbeing, Dever, CO.
33. **Steele, V. R.** (2026, June). Is Repetitive Transcranial Magnetic Stimulation Safe and Effective in Substance Using Samples? Evidence from Opioid and Cocaine Using Participants. Presented at The Clinical Transcranial Magnetic Stimulation Society Annual Meeting, Boston, MA.
34. **Steele, V. R.** (2026, June). Noninvasive Neuromodulation and Craving. Presented as a Neuroburst track at The College on Problems of Drug Dependence Annual Meeting, Portland, OR.
35. **Steele, V. R.** (2026, July). TMS Safety and Tolerability in People with SUD. Presented at the 2nd Addiction Neuromodulation Forum at The NYC Neuromodulation Conference, New York City, NY.

† Denotes first-author mentee

Invited Presentations:

1. **Steele, V. R.** (2018, April). Circuit targets for TMS addiction treatment: How do we know what we did worked? Presented at the International Conference on Transcranial Magnetic Stimulation and Addiction Treatments, Turin, Italy.

2. **Steele, V. R.** (2018, August). Data analysis steps for preprocessing simultaneous EEG data. Presentation at the Clinical and Cognitive Neuroscience Laboratory, University of Maryland – College Park, MD.
3. **Steele, V. R.** (2018, August). Using TMS to treat addiction: Circuits, Targets, and neuroplastic changes. Presentation to the Department of Psychology, University of Maryland – College Park, MD.
4. **Steele, V. R.** (2018, October). Using TMS to treat addiction: Circuits, targets, and neuroplastic changes. Presentation at Loyola University Medical Center, Stritch School of Medicine, Grand Rounds Chicago, IL.
5. **Steele, V. R.** (2019, January). Modulating dysregulated circuits as an addiction treatment. Presentation at the Department of Psychology, Rosalind Franklin University of Medicine and Science, North Chicago, IL.
6. **Steele, V. R.** (2019, February). Modulating dysregulated circuits as an addiction treatment. Presentation at the Department of Psychiatry, Yale University, New Haven, CT.
7. **Steele, V. R.** (2019, April). From addiction to mental health: Identifying biomarkers for targeted interventions. Presentation at the National Institute of Mental Health, Bethesda, Maryland.
8. **Steele, V. R.** (2019, April). Modulating dysregulated circuits as an addiction treatment. Presentation at the Department of Psychiatry, University of Iowa, Iowa City, IA.
9. **Steele, V. R.** (2019, July). Modulating dysregulated circuits as an addiction treatment. Presentation at the Department of Psychiatry, Stanford University, Palo Alto, CA.
10. **Steele, V. R.** (2020, March). TMS to modulate circuits in addiction: Known unknowns. Presentation at the Department of Psychiatry, Yale University, New Haven, CT.
11. **Steele, V. R.** (2020, October). TMS to modulate circuits in addiction. Presentation at the Department of Psychology, Rutgers University, Newark, NJ (Virtual).
12. **Steele, V. R.** (2021, February). Modulating addicted circuits with transcranial magnetic stimulation. Presentation at the Appetitive Neuroscience Seminar Series, Yale University, New Haven, CT (Virtual).
13. **Steele, V. R.** (2021, September). Developing a new intervention by modulating addicted circuits with transcranial magnetic stimulation. Presented at the Division of Addictions at Yale (DAY), Yale University, New Haven, CT (Virtual).
14. **Steele, V. R.** (2021, December). Developing new therapeutics to treat substance use disorders. Presented at the Clinical Issues for SUD Treatment, Hartford HealthCare, Behavioral Health Network, Hartford, CT (Virtual).
15. **Steele, V. R.** (2022, January). Transcranial magnetic stimulation and treating substance use disorders: What we know and where we should go. Presented at Clinical Grand Rounds, Root Center for Advanced Recovery, Hartford, CT (Virtual).
16. **Steele, V. R.** (2022, January and February). Treating clinical disorders or: How I learned to stop worrying and love TMS. Presented at Olin Neuropsychiatry Research Center Journal Club and Seminar Series, Hartford, CT (Virtual).
17. **Steele, V. R.** (2022, March). A novel intervention for opiate use disorder. Overdose Data 2 Action, Connecticut Department of Public Health, Partners Meeting (Virtual).
18. **Steele, V. R.** (2022, July). Circuit-based approaches to individualized TMS trials. International Network of TMS/tES for Addiction Medicine (INTAM) Webinar Series: Special Topic: Optimizing Non-Invasive Brain Stimulation for Addiction Treatment.
19. **Steele, V. R.** (2022, August). Transcranial magnetic stimulation for treating substance use disorders. Presentation at the Schizophrenia and Neuropharmacology Research Group at Yale, Yale University, New Haven, CT (Virtual).

20. **Steele, V. R.** (2023, March). Transcranial magnetic stimulation and treating substance use disorders: What we know and where we should go. Behavioral Science Research News Hour, MD Anderson, Houston, TX (Virtual).
21. **Steele, V. R.** (2023, April). Neuromodulation to treat opioid use disorder. Yale Center for Clinical Investigation, Research in Progress, New Haven, CT.
22. **Steele, V. R.** (2023, May). Transcranial magnetic stimulation to treat substance use disorders. Addiction Medicine Rounds, New Haven, CT (Virtual).
23. **Steele, V. R.** (2023, August). Transcranial magnetic stimulation as an interventional tool for hedonic hunger and food cravings in metabolic and bariatric surgery patients: Theory and application. International Federation for the Surgery of Obesity and Metabolic Disorders, Napoli, Italy.
24. **Steele, V. R.** (2023, September). Recent Applications of Transcranial Magnetic Stimulation in the Steele Lab. Erasmus School of Social and Behavioral Sciences, Rotterdam, Netherlands.
25. **Steele, V. R.** (2024, January). How to Realize the Potential of Circuit-Based Transcranial Magnetic Stimulation to Treat Opioid Use Disorder. Presented at the Division of Addictions at Yale (DAY), Yale University, New Haven, CT (Virtual).
26. **Steele, V. R.** (2024, January). Neuromodulation to treat opioid use disorder. Yale Center for Clinical Investigation, Research in Progress, New Haven, CT.
27. **Steele, V. R.** (2024, February). How to Realize the Potential of Circuit-Based Transcranial Magnetic Stimulation to Treat Opioid Use Disorder. Presented at Nora Volkow's Neuroimaging Laboratory at the National Institute on Alcohol Abuse and Alcoholism, Bethesda, MD (Virtual).
28. **Steele, V. R.** (2024, March). How to Realize the Potential of Circuit-Based Transcranial Magnetic Stimulation to Treat Opioid Use Disorder. Applied Neuroscience Lab Imaging Meeting, Harvard Medical School, McLean Hospital, Belmont, MA (Virtual).
29. **Steele, V. R.** (2024, September). Transcranial Magnetic Stimulation to Treat Opioid Use Disorder. Clinical Division of the Department of Psychological Sciences, University of Connecticut, Storrs, CT.
30. **Steele, V. R.** (2025, February). Repetitive Transcranial Magnetic Stimulation for Both Cocaine and Opioid Use Disorders. The 6th International Symposium Cognition and Brain Modulation. Shanghai, China.
31. **Steele, V. R.** (2025, April). Repetitive transcranial magnetic stimulation, a safe and effective intervention for cocaine and opioid use disorder. CNDS, CBIS, and brainSTIM Neuromodulation and Neuroimaging Relevant to Affective Disorders Speaker Series. University of Pennsylvania, PA (Virtual).
32. **Steele, V. R.** (2025, September). The Summer of TMS at Silver St.: What We Learned and What's Next. Silver St. All Hands Meeting. Middletown, CT.
33. **Steele, V. R.** (2025, December). Circuit-Based Transcranial Magnetic Stimulation as an Intervention for Substance Use Disorders. Center for Neuromodulation in Depression and Stress Journal Club and Lecture Series. University of Pennsylvania, Philadelphia, PA.
34. **Steele, V. R.** (2025, December). Recent Developments Toward Treating Substance Use Disorders with Transcranial Magnetic Stimulation. Distinguished Speaker Series. University of Delaware, Newark, DE.
35. **Steele, V. R.** (2026, January). Transcranial magnetic stimulation to modulate clinically important circuits and behaviors. Biological Sciences Training Program Clinical PI Data Blitz, Yale University, New Haven, CT.
36. **Steele, V. R.** (2026, March). Recent Developments Toward Treating Substance Use Disorders with Transcranial Magnetic Stimulation. Translational Neuropsychiatry through Neuromodulation seminar, University of California San Francisco, San Francisco, CA.

37. **Steele, V. R.** (2026, March). Recent Developments Toward Treating Substance Use Disorders with Transcranial Magnetic Stimulation. UCLA Neuromodulation Seminar, University of California, Los Angeles, Los Angeles, CA.
38. **Steele, V. R.** (2026, March). Transcranial magnetic stimulation to modulate clinically important circuits and behaviors. NeuroChoice, Stanford University, Palo Alto, CA.
39. **Steele, V. R.** (2026, March). Optimizing neuromodulation to treat substance use disorders. Grand Rounds, Department of Psychiatry, University of Calgary, Calgary, AB, Canada.
40. **Steele, V. R.** (2026, March). Recent Developments Toward Treating Substance Use Disorders with Transcranial Magnetic Stimulation. MDT on Addiction Seminar, University of Minnesota, Minneapolis, MN.
41. **Steele, V. R.** (2026, April). Recent developments toward treating substance use disorders with transcranial magnetic stimulation. Yale Depression Research Program, Department of Psychiatry, Yale University, New Haven, CT.
42. **Steele, V. R.** (2026, September). Transcranial magnetic stimulation in a residential treatment center. Starfish Neuroscience, Bellevue, WA.
43. **Steele, V. R.** (2026, September). Treating substance use disorders with transcranial magnetic stimulation. Visiting Scientist, Laureate Institute for Brain Research, Tulsa, OK.

Book Chapters:

1. **Steele, V. R.,** Pariyadath, V., Goldstein, R. Z., & Stein, E. A. (2018). Reward Circuitry and Drug Addiction. In D.S. Charney, P. Sklar, J.D. Buxbaum, & E. J. Nestler (Ed.) *Neurobiology of Mental Illness* (pp. 587-600). Oxford University Press.
2. **Steele, V. R.,** Ding, X., & Ross, T. J. (2019). Addiction: Informing drug abuse interventions with brain networks. In B.C. Munsell, G. Wu, L. Bonilha, & P.J. Laurienti (Ed.) *Connectomics: Applications to Neuroimaging* (pp. 101-123). Elsevier.
3. Hanlon, C. A., Soleimani, G., Fecteau, S., Honari, S., Kearney-Ramos, T., McCalley, D. M., Padula, P. B., Souki, A., **Steele, V. R.,** & Ekhtiari, H. (2025). Noninvasive transcranial brain stimulation to treat addiction. In V. Van Waes, J-P. Lefaucheur, A. Antal, A. T., Sack, & C. Baeken (Ed.) *Handbook of Behavioral Neuroscience* (Vol. 34, pp. 279-306). Elsevier.

Peer-Reviewed Publications:

1. Sponheim, S. R, **Steele, V. R.,** & McGuire, K. A. (2004). Verbal memory processes in schizophrenia patients and their first-degree biological relatives: Intact implicit memory, impaired explicit recollection. *Schizophrenia Research, 71(2-3)*, 339-348.
2. Westerberg, C. E., **Steele, V. R.,** & Marsolek, C. J. (2008). Reversing presentation order of semantically related words reverses memory. *European Journal of Cognitive Psychology, 20(1)*, 69-90.
3. Marsolek, C. J., Deason, R. G., Ketz, N. A., Ramanathan, P., Bernat, E. M., **Steele, V. R.,** Patrick, C. J., Verfaellie, M., & Schnyer, D. M. (2010). Identifying objects impairs knowledge of other objects: A relearning explanation for the neural repetition effect. *NeuroImage, 49(2)*, 1919-1932. NeuroImage Editors' Choice Award Winner, 2010.
4. Bernat, E. M., Nelson, L. D., **Steele, V. R.,** Gehring, W., & Patrick, C. J. (2011). Externalizing psychopathology and gain/loss feedback in a simulated gambling task: Dissociable components of brain response revealed by time-frequency analysis. *Journal of Abnormal Psychology, 120(2)*, 352-364.
5. **Steele, V. R.,** Bernat, E. M., van den Broek, P., Collins, P. F., Patrick, C. J., & Marsolek, C. J. (2013). Separable processes before, during, and after the N400 elicited by previously inferred and new information: Evidence from time-frequency decompositions. *Brain Research, 1492,* 92-107.

6. **Steele, V. R.,** Staley, C., & Prause, N. (2013). Sexual desire, not hypersexuality, is related to neurophysiological responses elicited by sexual images. *Socioaffective Neuroscience and Psychology, 3*, 1-12.
7. **Steele, V. R.,** Aharoni, E, Munro, G. E., Calhoun, V. D., Nyalakanti, P., Stevens, M. C., Pearlson, G. D. & Kiehl, K. A. (2013). A large scale (N = 102) functional neuroimaging study of response inhibition in a Go/NoGo task. *Behavioural Brain Research, 256,* 529-536.
8. **Steele, V. R.,** Claus, E. D., Aharoni, E., Harenski, C. L., Calhoun, V. D., Pearlson, G. D. & Kiehl, K. A. (2014). A large scale (N = 102) functional neuroimaging study of error processing in a Go/NoGo task. *Behavioural Brain Research. 268,* 127-138.
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