

**Vaughn R. Steele, Ph.D.**

**January 2021**

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

***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.

**Grants:****Ongoing Research Support**

Hartford Hospital Research Foundation (PI: Steele) 9/10/2020-9/10/2021  
*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)

**Previous Research Support**

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

NIH: Center on Compulsive Behaviors (PI: Steele)  
 Postdoctoral Fellowship  
*Competitive Renewal*

9/1/2018-8/31-2019  
 \$40,000 direct  
 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: Postdoctoral Fellow*

***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

***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

***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-present) as postbaccalaureate research assistant at Hartford Hospital

***Ad Hoc Reviewer:***

***Funding Agencies***

National Science Centre, Poland

***Journals***

Acta Psychologica, Alcohol, The American Journal of Drug & Alcohol Abuse, American Journal of Preventative Medicine, 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 Psychology, The International Journal of Psychophysiology, Journal of Case Reports, Journal of Neurology and Translational Neuroscience, Journal of Psychiatry and Neuroscience, Journal of Science and Law, NeuroImage, Neuropsychologia, Neuropsychopharmacology, Neuroscience, Neuroscience Letters, Personality Disorders: Theory, Research, and Treatment, PLOS One, Progress in Neuro-Psychopharmacology & Biological Psychiatry, Psychophysiology, Quantitative Imaging in Medicine and Surgery, 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. Schoeppner, 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-factor 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*.

#### **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. (Chair)** & Calhoun, V. D. (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.**, Aharoni, 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*.

***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.** (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.
5. **Steele, V. R.** (2019, February). Modulating dysregulated circuits as an addiction treatment. Presentation at the Department of Psychiatry, Yale University, New Haven, CT.
6. **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.

7. **Steele, V. R.** (2019, April). Modulating dysregulated circuits as an addiction treatment. Presentation at the Department of Psychiatry, University of Iowa, Iowa City, IA.
8. **Steele, V. R.** (2019, July). Modulating dysregulated circuits as an addiction treatment. Presentation at the Department of Psychiatry, Stanford University, Palo Alto, CA.
9. **Steele, V. R.** (2020, March). TMS to modulate circuits in addiction: Known known. Presentation at the Department of Psychiatry, Yale University, New Haven, CT.
10. **Steele, V. R.** (2020, October). TMS to modulate circuits in addiction. Presentation at the department of psychology, Rutgers University, Newark, NJ.

#### **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.

#### **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.
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