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ACADEMIC POSITIONS

2019– Assistant Professor Department of Psychology, The University of Chicago
2017–19 Postdoctoral Associate Department of Psychology, Yale University
Advisors: BJ Casey & Avram Holmes

EDUCATION

2017 Ph.D. with distinction Yale University, New Haven, CT
Psychology (Cognitive Neuroscience)
Advisor: Marvin Chun
2015 M.S., M.Phil. Yale University, New Haven, CT
Psychology (Cognitive Neuroscience)
2010 Sc.B. Brown University, Providence, RI
Cognitive Neuroscience

HONORS & AWARDS

2017 *Trainee Professional Development Award*, Society for Neuroscience
2017–18 *Theresa Seessel Postdoctoral Fellowship*, Yale University
2017 *30 Under 30: Science*, Forbes
2016 *Dissertation Research Award*, American Psychological Association
2016 *Best Talk Award*, Object Perception, Attention, & Memory meeting, Boston, MA
2016 *Brains, Minds, & Machines Workshop Fellowship*, Marine Biology Laboratory
2014–17 *Graduate Research Fellowship*, National Science Foundation
2010 *Phi Beta Kappa*, Brown University

PUBLICATIONS

Rosenberg, M. D. (2018). Baby brains reflect maternal inflammation. *Nature Neuroscience*. (News & Views).
Rosenberg, M. D., Casey, B. J., Holmes, A. J. (2018). Prediction complements explanation in understanding the developing brain. *Nature Communications*, 9: 589.

Casey, B. J., Cannonier, T., Conley, M. I., Cohen, A. O., Barch, D. M., Heitzeg, M. M., Soules, M. E., Teslovich, T., Dellarco, D. V., Garavan, H., Orr, C. A., Wager, T. D., Banich, M. T., Speer, N. K., Sutherland, M. T., Riedel, M. C., Dick, A. S., Bjork, J. M., Thomas, K. M., Charani, B., Mejia, M. H., Hagler Jr., D. J., Cornejo, M. D., Sicat, C. S., Harms, M. P., Dosenbach, N. U. F., Rosenberg, M. D., Earl, E., Bartsch, H., Watts, R., Polimeni, J. R., Kuperman, J. M., Fair, D. A., Dale, A. M., the ABCD Imaging Acquisition Workgroup (in press). The Adolescent Brain Cognitive Development (ABCD) study: Imaging acquisition across 21 sites. *Developmental Cognitive Neuroscience*.

Lin, Q., Rosenberg, M. D., Yoo, K., Hsu, W.-T., O'Connell, T. P., Chun, M. M. (in press). Resting-state functional connectivity predicts cognitive impairment related to Alzheimer's disease. *Frontiers in Aging Neuroscience*.

Hsu, W.-T., Rosenberg, M. D., Scheinost, D., Constable, R. T., Chun, M. M. (2018). Resting-state functional connectivity in large-scale brain networks predicts neuroticism and extraversion in novel individuals. *Social Cognitive and Affective Neuroscience*, 13(2): 224–232.

Beaty, R. E., Kenett, Y. N., Christensen, A. P., Rosenberg, M. D., Benedek, M., Chen, Q., Fink, A., Qiu, J., Kwapil, T. R., Kane, M., Silvia, P. J. (2018). Robust prediction of individual creative ability from brain functional connectivity. *Proceedings of the National Academy of Sciences*. [Featured in [The Guardian](#)]

Yoo, K., Rosenberg, M. D., Hsu, W.-T., Zhang, S., Li, C.-S. R., Scheinost, D., Constable, R. T., Chun, M. M. (2018). Connectome-based predictive modeling of attention: Comparing different functional connectivity measures and prediction methods across datasets. *NeuroImage*, 167, 11–22.

Jangraw, D. C., Gonzalez-Castillo, J., Handwerker, D. A., Ghane, M., Rosenberg, M. D., Panwar, P., Bandettini, P. A. (2018). A functional connectivity-based neuromarker of sustained attention generalizes to predict recall in a reading task. *NeuroImage*, 166, 99–109.

Rosenberg, M. D., Hsu, W.-T., Scheinost, D., Constable, R. T., Chun, M. M. (2018). Connectome-based models predict separable components of attention in novel individuals. *Journal of Cognitive Neuroscience*, 30(2): 160–173.

List, A., Rosenberg, M. D., Sherman, A., Esterman, M. (2017). Pattern classification of EEG signals reveals perceptual and attentional states. *PLoS ONE*, 12(4): e0176349.

Rosenberg, M. D., Finn, E. S., Scheinost, D., Constable, R. T., Chun, M. M. (2017). Characterizing attention with predictive network models. *Trends in Cognitive Sciences*, 21(4): 290–302. [Cover article]

Shen, X., Finn, E. S., Scheinost, D., Rosenberg, M. D., Chun, M. M., Papademetris, X., Constable, R. T. (2017). Using connectome-based predictive modeling to predict individual behavior from brain connectivity. *Nature Protocols*, 12(3): 506–518.

Rosenberg, M. D., Zhang, S., Hsu, W.-T., Scheinost, D., Finn, E. S., Shen, X., Constable, R. T., Li, C.-S. R., Chun, M. M. (2016). Methylphenidate modulates functional network connectivity to enhance attention. *Journal of Neuroscience*, 36(37): 9547–9557.

Chekroud, A. M., Ward, E. J., Rosenberg, M. D., Holmes, A. J. (2016). Patterns in the human brain mosaic

discriminate males from females. *Proceedings of the National Academy of Sciences*, pii: 201523888. (Letter).

Rosenberg, M. D., Finn, E. S., Scheinost, D., Papademetris, X., Shen, X., Constable, R. T., Chun, M. M. (2016). A neuromarker of sustained attention from whole-brain functional connectivity. *Nature Neuroscience*, 19(1): 165–171. [Featured in [News and Views](#) by Smith (2016), [Science Magazine](#), and [NPR](#)]

Finn, E. S., Shen, X., Scheinost, D., Rosenberg, M. D., Huang, J., Chun, M. M., Papademetris, X., Constable, R. T. (2015). Functional connectome fingerprinting: identifying individuals using patterns of brain connectivity. *Nature Neuroscience*, 18(11): 1664–1671. [Cover article featured in [Nature News](#), [BBC News](#), and [Wired](#)]

Rosenberg, M. D., Finn, E. S., Constable, R. T., Chun, M. M. (2015). Predicting moment-to-moment attentional state. *NeuroImage*, 114: 249–256.

Esterman, M., Rosenberg, M. D., Noonan, S. (2014). Intrinsic fluctuations in sustained attention and distractor processing. *Journal of Neuroscience*, 34(5): 1724–1730.

Rosenberg, M., Noonan, S., DeGutis, J., Esterman, M. (2013). Sustaining visual attention in the face of distraction: A novel gradual-onset continuous performance task. *Attention, Perception, & Psychophysics*, 75(3): 426–439.

Esterman, M., Noonan, S., Rosenberg, M., DeGutis, J. (2013). In the zone or zoning out? Tracking neural and behavioral fluctuations in sustained visual attention. *Cerebral Cortex*, 23(11): 2712–2723.

MANUSCRIPTS

Salehi, M., Scheinost, D., Rosenberg, M. D., Finn, E. S., Chun, M. M., Constable, R. T. (in revision). Network connectivity changes between task and resting-state fMRI data reveal flexibility and generalize attention prediction.

Lake, E., Finn, E. S., Noble, S., Vanderwal, T., Shen, X., Rosenberg, M. D., Spann, M. N., Chun, M. M., Scheinost, D., Constable, R. T. (under review). The functional brain organization of an individual predicts measures of social abilities in autism spectrum disorder.

INVITED COLLOQUIA

2018 *Center for Cognitive and Behavioral Brain Imaging Seminar*, The Ohio State University

2018 *Clinical Psychology Brown Bag*, The Ohio State University

2018 *Psychology Department Seminar*, University of Chicago

2017 *Computational Biology Seminar Series*, IBM Research

2016 *Psychology Department Seminar*, Columbia University

2015 *Yale Institute for Network Science/Kavli Institute for Neuroscience Lecture*, Yale University

2015 *Methods & Tutorial Series*, VA Boston Neuroimaging Research Center

2014 *Current Works in Cognitive Psychology*, Yale University

- 2014 *Magnetic Resonance Research Center fMRI Seminar*, Yale University School of Medicine
2013 *Current Works in Cognitive Psychology*, Yale University

INVITED CONFERENCE & WORKSHOP PRESENTATIONS

- 2017 *Flux: The International Congress for Integrative Developmental Cognitive Neuroscience*, Portland, Oregon
2017 *Brainhack NYC* (Keynote), Child Mind Institute
2016 *Young European Scientist Meeting*, Faculty of Medicine of University of Porto, Portugal
2016 *3rd Biennial Brain Function Workshop*, Whistler-Blackcomb, BC, Canada
2014 *2nd Biennial Brain Function Workshop*, Whistler-Blackcomb, BC, Canada

CONTRIBUTED CONFERENCE PRESENTATIONS

Jangraw, D. C., Finn, E. S., Gonzalez-Castillo, J., Handwerker, D. A., Ghane, M., Rosenberg, M. D., Panwar, P., Bandettini, P. A. (2018). Functional connectivity-based predictor of reading recall generalizes to multi-task data. Poster to be presented at *Organization for Human Brain Mapping*, Singapore.

Fong, A. H. C., Yoo, K., Rosenberg, M. D., Scheinost, D., Constable, R. T., Chun, M. M. (2018). Dynamic functional connectivity predicts individual differences in attention. Poster presented at *Cognitive Neuroscience Society*, Boston, MA.

Kumar, S., Rosenberg, M. D., Yoo, K., Scheinost, D., Constable, R. T., Chun, M. M. (2018). An information network flow approach to measuring functional connectivity and predicting behavior. Poster presented at *Cognitive Neuroscience Society*, Boston, MA.

Rosenberg, M. D., Scheinost, D., Hsu, W.-T., Avery, E., Hampson, M., Constable, R. T., Chun, M. M. (2018). Real-time neurofeedback of large-scale brain networks predicting attention. Talk presented at *Alpine Brain Imaging Meeting*, Champéry, Switzerland.

Rosenberg, M. D., Scheinost, D., Hsu, W.-T., Constable, R. T., Chun, M. M. (2017). Real-time neurofeedback of functional connectivity in large-scale brain networks that predict attention. Talk presented at *Society for Neuroscience*, Washington, D.C.

Yoo, K., Rosenberg, M. D., Hsu, W.-T., Zhang, S., Li, C.-S. R., Scheinost, D., Constable, R. T., Chun, M. M. (2017). Connectome-based predictive modeling (CPM) of sustained attention: Comparing different methods for feature selection and prediction. Talk presented at *Society for Neuroscience*, Washington, D.C.

Lin, Q., Rosenberg, M. D., Yoo, K., Hsu, W.-T., O'Connell, T. P., Chun, M. M. (2017). Resting-state functional connectivity in large-scale brain networks predicts Alzheimer's disease symptom severity in novel individuals. Poster presented at *Society for Neuroscience*, Washington, D.C.

Jangraw, D. C., Gonzalez-Castillo, J., Handwerker, D. A., Ghane, M., Rosenberg, M. D., Panwar, P., Bandettini, P. A. (2017). Functional connectivity-based neuromarker outperforms gaze, pupillary, and fMRI

activation-based markers in predicting reading comprehension. Talk presented at *Society for Neuroscience*, Washington, D.C.

Rosenberg, M. D.*, Scheinost, D., Hsu, W.-T., Finn, E. S.*, Constable, R. T., Chun, M. M. (2017). Large-scale functional connectivity networks predict individual differences and fluctuations in attention. Talk presented at *Organization for Human Brain Mapping*, Vancouver, BC, Canada. (*Symposium organizers)

Rosenberg, M. D., Scheinost, D., Hsu, W.-T., Finn, E. S., Constable, R. T., Chun, M. M. (2017). Large-scale functional connectivity networks predict attention fluctuations. Poster presented at *Organization for Human Brain Mapping*, Vancouver, BC, Canada.

Jangraw, D. C., Gonzalez-Castillo, J., Handwerker, D. A., Ghane, M., Rosenberg, M. D., Panwar, P., Gutierrez, B., Bandettini, P. A. (2017) Functional connectivity-based predictors of naturalistic reading comprehension. Poster presented at *Organization for Human Brain Mapping*, Vancouver, BC, Canada.

Hsu, W.-T., Rosenberg, M. D., Scheinost, D., Finn, E. S., Constable, R. T., Chun, M. M. (2017). Resting-state functional connectivity in large-scale brain networks predicts neuroticism and extraversion in novel individuals. Poster presented at *Cognitive Neuroscience Society*, San Francisco, CA.

Rosenberg, M. D., Hsu, W.-T., Scheinost, D., Finn, E. S., Constable, R. T., Chun, M. M. (2016). Connectome-based fMRI models predict separable components of attention in novel individuals. Talk presented at *Object Perception, Attention, & Memory*, Boston, MA.

Salehi, M., Scheinost, D., Finn, E. S., Rosenberg, M. D., Chun, M. M., Constable, R. T. (2016). Network changes between task- and resting-state functional connectivity predict behavior across datasets. Poster presented at *Society for Neuroscience*, San Diego, CA.

Rosenberg, M. D., Zhang, S., Hsu, W.-T., Scheinost, D., Finn, E. S., Shen, X., Constable, R. T., Li, C-S. R., Chun, M. M. (2016). Methylphenidate modulates attention network strength. Poster presented at *Resting State and Brain Connectivity*, Vienna, Austria.

Rosenberg, M. D., Finn, E. S., Scheinost, D., Papademetris, X., Shen, X., Constable, R. T., Chun, M. M. (2015). Resting-state brain connectivity predicts ADHD symptom severity in individual children. Poster presented at *Organization for Human Brain Mapping*, Honolulu, HI.

Rosenberg, M. D., Finn, E. S., Shen, X., Scheinost, D., Papademetris, X., Constable, R. T., Chun, M. M. (2014). Strength of task-relevant networks at rest predicts sustained attention performance. Poster presented at *Society for Neuroscience*, Washington, D.C.

Rosenberg, M. D., Finn, E. S., Constable, R. T., Chun, M. M. (2014). Predicting moment-to-moment attentional state. Poster presented at *Vision Sciences Society*, St. Pete Beach, FL.

Finn, E. S., Rosenberg, M. D., Shen, X., Scheinost, D., Papademetris, X., Chun, M. M., Constable, R. T. (2014). Predicting working memory and attentional performance from complex networks during task and at rest. Poster presented at *The Organization for Human Brain Mapping*, Hamburg, Germany.

Rosenberg, M. D., Finn, E. S., Chun, M. M. (2013). Tracking fluctuations in sustained attention under varying degrees and types of task load. Poster presented at *Society for Neuroscience*, San Diego, CA.

Finn, E. S., Rosenberg, M. D., Shen, X., Constable, R. T., Chun, M. M. (2013). Predicting attention and performance across varying task loads from complex networks during task and at rest. Poster presented at *Society for Neuroscience*, San Diego, CA.

Noonan, S., Esterman, M., Rosenberg, M. (2013). Neural signatures of individual differences in sustained attention. Poster presented at *Organization for Human Brain Mapping*, Seattle, WA.

List, A., Rosenberg, M., Sherman, A., Grabowecky, M., Suzuki, S., Esterman, M. (2013). EEG pattern classification reveals the scope of local vs. global attention. Poster presented at *Vision Sciences Society*, Naples, FL.

List, A., Rosenberg, M., Sherman, A., Grabowecky, M., Suzuki, S., Esterman, M. (2013). Neural correlates of local vs. global attentional scope revealed via EEG pattern classification. Poster presented at *Cognitive Neuroscience Society*, San Francisco, CA.

Rosenberg, M., List, A., Sherman, A., Grabowecky, M., Suzuki, S., Esterman, M. (2012). Decoding EEG data reveals dynamic spatiotemporal patterns in perceptual processing. Poster presented at *Vision Sciences Society*, Naples, FL.

Esterman, M., Noonan, S., Rosenberg, M. (2012). In the zone or zoning out? Behavioral and neural evidence for distinct attentional states. Poster presented at *Vision Sciences Society*, Naples, FL.

Rosenberg, M., List, A., Sherman, A., Grabowecky, M., Suzuki, S., Esterman, M. (2012). Classifying visual perception on a trial-by-trial basis using EEG signals. Poster presented at *Cognitive Neuroscience Society*, Chicago, IL.

Rosenberg, M., Noonan, S., DeGutis, J., Esterman, M. (2011). Sustaining visual attention in the face of distraction: A novel gradual onset continuous performance task. Poster presented at *Vision Sciences Society*, Naples, FL.

Esterman, M., Noonan, S., Rosenberg, M., DeGutis, J. (2011). In the zone or zoning out? Tracking neural and behavioral fluctuations in sustained visual attention. Poster presented at *Vision Sciences Society*, Naples, FL.

Noonan, S., Rosenberg, M., DeGutis, J., Esterman, M. (2011). In the zone or zoned out? Performance variability and BOLD fluctuations in the default-mode network. Poster presented at *Organization for Human Brain Mapping*, Quebec City, Canada.

TEACHING EXPERIENCE

- 2014 The Human Brain, Yale University, Teaching Fellow
- 2014 Introduction to Psychology, Yale University, Teaching Fellow
- 2013 Introduction to Cognitive Science, Yale University, Teaching Fellow

AD HOC REVIEWING

Acta Neuropsychiatrica

The American Journal of Psychiatry

Applied Cognitive Psychology

Attention, Perception, & Psychophysics

Biological Psychiatry

Biological Psychiatry: Cognitive Neuroscience and Neuroimaging

Cerebral Cortex

Cognitive, Affective, & Behavioral Neuroscience

Developmental Cognitive Neuroscience

Journal of Clinical Child & Adolescent Psychology

Journal of Cognitive Neuroscience

Journal of Experimental Psychology: Human Perception & Performance

Journal of Neuroscience

Nature Communications

Nature Neuroscience

NeuroImage

NeuroImage: Clinical

Progress in Neuropsychopharmacology & Biological Psychiatry

Psychological Medicine

Scientific Reports