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2015-present **Postdoctoral Research Associate**
Duke Institute for Brain Sciences - Duke University
Johnson Laboratory - PI: Elizabeth Johnson, PhD

2015-2016 **Postdoctoral Research Associate**
Center for Cognitive Neuroscience - Duke University
Motivated Memory Laboratory - PI: R. Alison Adcock, MD PhD

Education

2012-2015 **PhD - Psychology & Neuroscience**
Certificate in Cognitive Neuroscience
Duke University, Durham, NC
Dissertation: *Cognitive Neurostimulation: Learning to Volitionally
Invigorate Mesolimbic Reward Network Activation*

Committee: R. Alison Adcock, MD PhD (*advisor*)
Timothy Strauman, PhD
Scott Huettel, PhD
Nan-Kuei Chen, PhD

2009-2012 **MA - Psychology & Neuroscience**
Duke University, Durham, NC

2007 **BS - Brain, Behavior, & Cognitive Science**
University of Michigan, Ann Arbor, MI
University Honors; Minor - Philosophy of Mind
Research Advisor: Oliver Schultheiss, PhD

Publications

MacDuffie KM, **MacInnes JJ**, Dickerson KC, Scult MA, Beaty RE, Eddington KM, Strauman TJ, Adcock RA. Motivating Engagement in Cognitive Therapy Strategies Using Real-Time fMRI Neurofeedback. (*submitted*)

MacInnes JJ*, Dickerson KC*, Chen N, Adcock RA. (2016) Cognitive Neurostimulation: Learning to Volitionally Sustain Ventral Tegmental Area Activation. *Neuron*, 89(6)

Ballard IC, Murty VP, Carter RM, **MacInnes JJ**, Huettel SA, Adcock RA. (2011) Dorsolateral prefrontal cortex drives mesolimbic dopaminergic regions to initiate motivated behaviors. *Journal of Neuroscience*, 31(28):10340-46

Schultheiss OC, Patalakh M, Rawolle M, Lienen S, **MacInnes JJ**. (2011) Referential competence is associated with congruence between implicit and explicit motivation. *Journal of Research in Personality*, 45, 59-70

Carter RM*, **MacInnes JJ***, Huettel SA, Adcock RA. (2009) Activation in the VTA and nucleus accumbens increases in anticipation of both gains and losses. *Frontiers in Behavioral Neuroscience*. (3) 21
-Commentary in: Seo, H (2010) Ambivalent Dopamine. *Frontiers in Neuroscience*, 4

* co-lead authors

Abstracts & Presentations

MacInnes J. Mapping the Geographic Spread of Collaborations Across Duke University. *Scholars@Duke Data Visualization Challenge*, Duke Research Computing, 2017 ***First Place Winner**

Dickerson KC, **MacInnes J**, Chen N, Adcock RA. Cognitive Neurostimulation of the Dopamine System. *American College of Neuropsychopharmacology*, 2016

Iqbal S, **MacInnes J**. Dynamic Object-Gaze Tracking with OpenCV. *PyData Carolinas*, 2016

MacDuffie KM, Dickerson KC, **MacInnes J**, Eddington KM, Strauman TJ, Adcock RA. Real-time fMRI Neurofeedback Motivates Engagement of Cognitive Strategies for Depression. *Society for Neuroscience*, 2016 ***selected as SFN Hot Topic of 2016**

MacDuffie KM, **MacInnes J**, Dickerson KC, Scult MA, Beaty RE, Eddington KM, Strauman TJ, Adcock RA. Motivating Engagement in Cognitive Therapy Strategies Using Real-Time FMRI Neurofeedback. *Association for Psychological Science*, 2016

MacInnes J, Wardle ME, Johnson EN. Facial Fixations: How Visual Exploration Varies Across Artistic Depictions of Faces. *European Conference on Visual Perception: Visual Science of the Arts Conference*, 2016

Johnson EN, **MacInnes J**, Iqbal S, Wardle ME, Pearson JM. Gaze Meets Space: Mapping Natural Viewing Behavior in the Gallery. *European Conference on Visual Perception: Visual Science of the Arts Conference, 2016*

MacInnes J*, Dickerson KC*, Adcock RA. Cognitive Neurostimulation: Learning to volitionally sustain ventral tegmental area activation. *Real-time Functional Imaging & Neurofeedback, 2015*

MacInnes J*, Dickerson KC*, Adcock RA. Cognitive Neurostimulation: Learning to volitionally sustain ventral tegmental area activation. *Translational Neuroscience, 2014*

MacInnes J*, Dickerson KC*, Adcock RA. Behavioral neurostimulation: Sustained activation of the human dopaminergic midbrain using real-time fMRI. *Society for Neuroscience Annual Meeting, 2013*

Dickerson KC*, **MacInnes J***, Adcock RA. Sustained activation of the human dopaminergic midbrain using real-time fMRI. *Mechanisms of Motivation, Cognition, and Aging Interactions Annual Meeting, 2013*

Carter RM, **MacInnes J**, Winecoff A, Adcock RA, Huettel SA. Distribution analysis of fMRI contrasts in social and affective tasks. *Social and Affective Neuroscience Society Annual Meeting, 2013*

MacInnes J, Adcock RA. Intentional activation of the human dopaminergic midbrain: Experimental foundations for therapeutic behavioral neurostimulation. *National Academy of Sciences: Kavli Frontiers of Science Symposia, 2011*

MacInnes J, MacDuffie K, Adcock RA. Instructed salience modulates reward-motivated enhancements in item and relational memory. *Cognitive Neuroscience Society Annual Meeting, 2011*

MacInnes J, MacDuffie K, Adcock RA. Differential impact of reward motivation on item versus source memory. *Society of Neuroscience Annual Meeting, 2010*

MacDuffie K, Murty V, **MacInnes J**, Johnson B, Adcock RA. Motivated word-list encoding: Valence or value? *Duke University Center for Neuroeconomic Studies Annual Retreat, 2010*

Ballard I, Murty V, **MacInnes J**, Carter RM, Huettel S, Adcock RA. Prefrontal origin of reward information in the mesolimbic dopamine system. *Cognitive Neuroscience Society Annual Meeting, 2010*

MacInnes J, Carter RM, Adcock RA, Huettel S. Rewards earned for others – An fMRI study of the neural correlates of altruism. *Cognitive Neuroscience Society Annual Meeting, 2009*

MacInnes J, Rouse E, Figueroa S, Ely S, Adcock RA. Pupillary indices of successful reward-motivated learning. *Soc. for Neuroscience Annual Meeting, 2008*

MacInnes J, Rouse E, Figueroa S, Ely S, Adcock RA. Pupil responses to reward cues as predictors of long-term memory for associated images. *Center for Neuroeconomics Annual Meeting, Duke University, 2008*

* co-lead authors

Teaching

courses

Functional Magnetic Resonance Imaging

Spring 2016 - Graduate Course, Duke University

Introduction to Cognitive Neuroscience

Summer 2014 - Duke University

guest lectures

fMRI Methods in Cognitive Neuroscience

Summer 2016 - Undergraduate Intro to Cognitive Neuroscience, Duke University

Cognitive Neurostimulation of Effective Learning States

Fall 2014 - Duke University

Real-time fMRI and Applications

Spring 2013 - fMRI methods group, Duke University

Physiological De-noising of fMRI data

Spring 2013 - fMRI methods group, Duke University

Advanced Imaging Analyses

Spring 2012 - Undergraduate fMRI course, Duke University

Real-time fMRI and MVPA

Fall 2011 - Graduate fMRI course, Duke University

K-Space and MR Physics

Fall 2011 - Graduate fMRI course, Duke University

teaching asst.

Biological Basis of Behavior

Spring 2013 - Undergraduate course, Duke University

Functional Magnetic Resonance Imaging

Spring 2012 - Undergraduate course, Duke University

Functional Magnetic Resonance Imaging

Fall 2011 - Graduate course, Duke University

recognitions & memberships

2017 - 1st Place, Scholars@Duke Data Visualization Competition

2016 - Brain Awareness Week exhibit planner, volunteer

2015 - Real-Time Functional Imaging & Neurofeedback Student Travel Award

2015 - Duke Graduate School Travel Award

2009-2013 - James B. Duke Graduate Fellowship

2011-2012 - Board of Directors, Design - Brain Awareness week

2010 - NSF Fellow - East Asia & Pacific Summer Institutes

2008, 2010 - Society for Neuroscience member

2009 - NSF Graduate Research Fellowship - Honorable Mention

2008-2009 - Cognitive Neuroscience Society member

2005-2007 - University Honors – University of Michigan

2006-2007 - Undergraduate Psychological Society member – University of Michigan

2002-2007 - Michigan Competitive Scholarship

2002 - Ruth M. Butler Community Service Award