

COURTNEY R. BURTON

Clinical and Cognitive Neuroscience Laboratory ▪ University of Georgia
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EDUCATION

In Progress: Ph.D. in Neuroscience University of Georgia, Biomedical & Health Sciences Institute <i>Advisor:</i> Dr. Jennifer McDowell	Expected May 2019 Athens, GA
B.S. in Psychology/Behavioral Neuroscience Washington College <i>Summa Cum Laude</i> , First Honor Graduate, Departmental Honors <i>Advisor:</i> Dr. Michael Kerchner <i>Thesis:</i> Assessing Free-running Rodent Circadian Rhythms Induced by Constant Light of Different Wavelengths: An Animal Model of Depression	May 2012 Chestertown, MD GPA: 4.0/4.0

HONORS AND AWARDS

Graduate School Travel Award	November 2016, 2018
Franklin Foundation Travel Award	November 2016
Michael H. Kernis Research Award	April 2016
Graduate School Travel Award	July 2015
Scholars of Excellence Fellowship	Fall 2014-Spring 2015
Early Graduate Recruiting Fellowship	Fall 2014-Spring 2015
Psychology Department Outstanding Achievement Award	May 2012
Outstanding Community Service Recognition	May 2012
Phi Beta Kappa Honor Society	February 2012
Douglass Cater Society of Junior Fellows	October 2011
Visitors and Governors Medal	September 2011
Psi Chi Honor Society	April 2011

MANUSCRIPTS

Burton, C.R., Schaeffer, D.J., Bobilev, A.M., Pierce, J.E., Rodrigue, A.L., Krafft, C.E., Clementz, B.A., Lauderdale, J.D., & McDowell, J.E. (2018). Microstructural differences in visual white matter tracts in people with aniridia. *NeuroReport*, 29(17), 1473-1478.

Schaeffer, D.J., Rodrigue, A.L., **Burton, C.R.**, Pierce, J.E., Murphy, M.N., Clementz, B.A., & McDowell, J.E. (2017). White matter fiber integrity of the saccadic eye movement network differs between schizophrenia and healthy groups. *Psychophysiology*, 54(12), 1967-1977.

Schaeffer, D.J., Rodrigue, A.L., **Burton, C.R.**, Pierce, J.E., Unsworth, N., Clementz, B.A., & McDowell, J.E. (2015). White matter structural integrity differs between people with schizophrenia and healthy groups as a function of cognitive control. *Schizophrenia Research*, 169(1-3), 62-68.

ORAL PRESENTATIONS

- “Indexing Cognitive Control with Functional Magnetic Resonance Imaging.” Department of Statistics, University of Georgia, Athens, GA, October 2018.
- “Functional Magnetic Resonance Imaging and AFNI.” Department of Statistics, University of Georgia, Athens, GA, August 2018.
- “Neural White Matter Distinctions in Psychosis.” Conference of the Network of Greater Georgia Institutions for Neuroimaging and Statistics, University of Georgia, Athens, GA, April 2018.
- “Cognitive Control and Functional Magnetic Resonance Imaging.” Department of Statistics, University of Georgia, Athens, GA, October 2016.
- “Introduction to Brain Imaging Techniques and Applications.” Conference of the Network of Greater Georgia Institutions for Neuroimaging and Statistics, University of Georgia, Athens, GA, April 2016.
- “White Matter Differences in Aniridia.” Department of Psychology, University of Georgia, Athens, GA, October 2015.

POSTER PRESENTATIONS

- Burton, C.R.**, Jackson, B.S., Huang, L.-Y., Parker, D.A., Schaeffer, D.J., Gershon, E.S., Keshavan, M.S., Pearlson, G.P., Tamminga, C.A., Clementz, B.A., & McDowell, J.E. Neural white matter distinctions in biologically classified psychosis. Annual Conference of the Society for Neuroscience, San Diego, CA, November 2018.
- Jackson, B.S., **Burton, C.R.**, Auger, E.R., Rodrigue, A.L., Keshavan, M.S., Pearlson, G.P., Gershon, E.S., Tamminga, C.A., Clementz, B.A., & McDowell, J.E. Cognitive control in psychosis: an fMRI and saccadic eye movement study. Annual Conference of the Society for Neuroscience, San Diego, CA, November 2018.
- Burton, C.R.**, Schaeffer, D.J., Bobilev, A.M., Pierce, J.E., Rodrigue, A.L., Krafft, C.E., Clementz, B.A., Lauderdale, J.D., & McDowell, J.E. Decreased white matter integrity in visual tracts in people with aniridia. Annual Conference of the Society for Neuroscience, San Diego, CA, November 2016.
- Burton, C.R.**, Elbich, D., Ginty, A., Yeh, F.-C., & Verstynen, T. Reward circuits and food cues: structural and functional relationships. Annual Symposium of the Multimodal Neuroimaging Training Program, Pittsburgh, PA, July 2015.
- Fletcher, M.A., Low, K.A., Tan, C., Kong, T., Zimmerman, B., Schneider-Garces, N., Mathewson, K.E., **Burton, C.R.**, Sutton, B.P., Chiarelli, A.M., Maclin, E., Gratton, G., & Fabiani, M. The effects of fitness on subcortical brain anatomy and cognition across the life span. Annual Conference of the Society for Neuroscience, Washington, DC, November 2014.
- Mathewson, K.E., Low, K.A., Schneider-Garces, N., Chiarelli, A., Tan, C.H., Kong, T.S., **Burton, C.R.**, Fletcher, M.A., Zimmerman, B., Sutton, B.P., Maclin, E.L., Fabiani, M., & Gratton, G. Retinotopic visual mapping of brain oxygenation and neuronal activity using simultaneous fast and slow near-infrared optical brain imaging in humans. Annual Conference of the Vision Sciences Society, St. Pete Beach, FL, May 2014.

POSTER PRESENTATIONS *continued*

Burton, C.R., Snover, S., Sughrue, E., & Littlefield, L. Investigating working memory: correlations, concussions, and calisthenics. Annual Conference of the Eastern Psychological Association, Pittsburgh, PA, March 2012.

Patel, E., **Burton, C.R.**, & Siemen, J. The cardiovascular effects of nicotine and oral contraceptives in young adults. Annual Conference of the Eastern Psychological Association, Pittsburgh, PA, March 2012.

Smoter, V., Barry, I., **Burton, C.R.**, Ellison, A., Finnegan, J., Parikh, P., Streeter, M., & Gibson, C. Behavioral and histological effects of traumatic brain injury on rats genetically predisposed to depression. Annual Conference of the Eastern Psychological Association, Pittsburgh, PA, March 2012.

RESEARCH EXPERIENCE

Graduate Assistant, Clinical and Cognitive Neuroscience Laboratory, August 2014-present
University of Georgia

Dr. Jennifer McDowell: white matter structure in psychiatric and healthy groups

Visiting Research Specialist, Cognitive Neuroimaging Laboratory, Sept 2012-July 2014
Beckman Institute for Science & Technology, University of Illinois at Urbana-Champaign

Dr. Monica Fabiani, Dr. Gabriele Gratton: opacity measures in diffuse optical tomography

Research Assistant, Graduate School of Biomedical Sciences, June-August 2011
University of Massachusetts Medical School

Dr. Hong-Sheng Li: neuronal signaling in visual phototransduction of *Drosophila melanogaster*

CURRENT RESEARCH

Bipolar-Schizophrenia Network on Intermediate Phenotypes (BSNIP-2)

Dr. Brett Clementz, Dr. Elliot Gershon, Dr. Matcheri Keshavan, Dr. Godfrey Pearlson, Dr. Carol Tamminga

- to evaluate possible biomarkers in psychosis, for improvement of classification and treatment

Responsibilities:

- data collection: structural and functional MRI, clinical assessment
- data analysis: diffusion MRI to assess white matter – for probands, comparisons, reliability phantoms

Psychosis and Affective Research Domains and Intermediate Phenotypes (PARDIP)

Dr. Brett Clementz, Dr. Matcheri Keshavan, Dr. Godfrey Pearlson, Dr. Carol Tamminga

- to evaluate possible neurobiological differences in affective illness with and without psychotic features

Responsibilities:

- data analysis: diffusion MRI to assess white matter – for probands, comparisons

RESEARCH SKILLS

Neuroimaging

MRI scanner operation – GE Signa HDx 3.0 T

Diffusion MRI analysis – voxel-based (FSL, AFNI), fiber tractography (ExploreDTI), connectome (DSI Studio)

Clinical Assessment

Trained to administer – Structured Clinical Interview for DSM-IV-TR Axis I Disorders (SCID), Lifetime Dimensions of Psychosis Scale (LDPS), Schizobipolar Scale (SBS), Positive and Negative Symptom Scale (PANSS), Clinical Anxiety Scale (CAS), Montgomery and Asberg Depression Rating Scale (MADRS), Young Mania Resting Scale (YMRS), Birchwood Social Functioning Scale (SFS)

ADDITIONAL TRAINING

AFNI Bootcamp, National Institutes of Health February 2017
Dr. Robert Cox, Dr. Paul Taylor: DTI (TORTOISE) and fMRI analysis

Multimodal Neuroimaging Training Program, June-July 2015
Center for the Neural Basis of Cognition, University of Pittsburgh/Carnegie Mellon University
Dr. Timothy Verstynen: Diffusion-Weighted Imaging

- analyzed diffusion MRI data using novel local connectome approach
- observed surgical implantation of electrode for deep brain stimulation

Kent County Behavioral Health, Chestertown, MD, student intern August-Dec 2011

Illinois Summer Neuroscience Institute, University of Illinois at Urbana-Champaign May 2011

TEACHING EXPERIENCE

Teaching Assistant, Department of Psychology, University of Georgia Spring 2016-Fall 2018
PSYC 5850 Psychopharmacology
PSYC 4130 Physiological & Comparative Psychology
PSYC 1101 Elementary Psychology

Course Mentor, Peer Tutor, Office of Academic Skills, Washington College Fall 2010-Spring 2012
General Chemistry; General Psychology

PROFESSIONAL AFFILIATIONS

Society for Neuroscience, student member 2016, 2018
American Psychological Association, student affiliate 2011-2013
Eastern Psychological Association, associate member 2011-2013