



STEFANIA RENÉ ASHBY

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EDUCATION

Bachelor of Science, Psychology

Brigham Young University, 12/16/2011

- Concentration: Brain, Behavior, and Cognition
- Cumulative GPA: 3.92 — *Magna Cum Laude*
- Psychology Major GPA: 3.97

ACADEMIC HONORS

Phi Kappa Phi National Honor Society
Golden Key International Honor Society
Phi Eta Sigma National Honor Society
Psi Chi International Honor Society

RESEARCH EXPERIENCE

Staff Research Associate I

6/2012 – present

Translational Cognitive and Affective Neuroscience Laboratory

Dr. Cameron Carter, University of California, Davis

- Independently performed fMRI brain scanning with control subjects, psychosis patients, and individuals at high risk for psychosis, on both a 3T Siemens and 1.5T GE scanner
- Preprocessed and analyzed fMRI imaging data and behavioral data using SPSS, Matlab, SPM 8, Python, and the CONN Toolbox for Matlab
- Demonstrated experience maintaining and developing custom code written in Matlab, Python, and E-Basic.
- Assisted in the development of three new functional imaging paradigms and coded them into E-Prime for stimulus presentation
- Demonstrated experience working with patients with major psychiatric disorders and administering standardized clinical interviews including the SCID and SIPS.
- Administered a neuropsychological testing battery including the MATRICS, WTAR, and WASI.
- Conducted phone screen assessments with potential patients to determine eligibility for participation in research.
- Demonstrated experience conducting research and understanding of research methods and cognitive neuroscience practice.
- Conducted pre-MRI safety screening as well as urine drug screening for research appointments
- Administered standardized computerized cognitive assessments.
- Obtained informed consent from patients as well as control subjects for participation in research studies.
- Coordinated collection and transfer of clinical and MRI data for two multi-site studies
- Organized and verified data files for quality assurance and developed a new tracking system for new incoming data
- Supervised undergraduate research volunteers and provided support for questions regarding data entry.

REFERENCES

Dr. C. Brock Kirwan

Brigham Young University
1052 Kimball Tower
Provo, UT 84602
(801) 422-2532
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Dr. Tara Niendam

University of California, Davis
4701 X Street
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(916) 734-3090
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Dr. Cameron Carter

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Research Assistant*1/2011 - 1/2012**Memory and Cognition Laboratory**Dr. C. Brock Kirwan, Brigham Young University*

- Developed a research study focusing on the role of the hippocampus in imagining future events as well as remembering past events
- Scheduled and screened participants for an fMRI study
- Conducted background research and wrote a review of the literature
- Designed and coded an fMRI paradigm using E-Prime software
- Prepared participant stimuli and assisted in safety monitoring for MRI scans
- Assisted in the preprocessing of fMRI data obtained during a memory and imagination task
- Introduced to the basics of Matlab computing software
- Collaborated on the writing of a report of research findings and assisted in submitting findings for publication in a peer reviewed journal
- Utilized AFNI software to trace brain regions of interest obtained from structural MRI

SKILLS

- fMRI
- Matlab
- E-Prime
- Python
- SPSS
- Qualtrics
- Excel
- Word

Research Assistant*8/2011 – 12/2011**Neuropsychology Laboratory**Dr. Shawn Gale, Brigham Young University*

- Utilized AFNI computer software to trace brain regions of interest obtained from MRI
- Computed hippocampal volumes for cases of pediatric traumatic brain injury
- Updated patient files
- Compiled documents on how to run AFNI and trace hippocampal regions of interest for future students in the lab

TEACHING EXPERIENCE**Teaching Assistant***6/2011 – 8/2011**Psychology 111: General Psychology**Dr. Hedges, Brigham Young University*

- Held weekly office hours in the Psych Central tutoring center
- Provided assistance, guidance, and tutoring to struggling students
- Graded weekly papers and assignments for a group of 40 students and entered scores into the online gradebook
- Provided feedback and suggestions on all assignments

Teaching Assistant*6/2011 – 8/2011**Psychology 381: Behavioral Neurobiology**Dr. Gale, Brigham Young University*

- Graded quizzes and entered them into the online gradebook
- Read term papers and provided feedback
- Provided potential exam questions for both the midterm and final

examinations for the course

- Conducted literature searches pertaining to mild cognitive impairment and pediatric traumatic brain injury
- Held review sessions for students to prepare for exams

PUBLICATIONS

Kirwan, C.B., **Ashby, S.R.**, & Nash, M.I. (2014). Remembering and imagining differentially engage the hippocampus: A multivariate fMRI investigation. *Cognitive Neuroscience*. Epub ahead of print. doi: 10.1080/17588928.2014.933203

POSTERS

Niendam, T.A., Ferrer, E., Lesh, T.A., **Ashby, S.**, Solomon, M., Ragland, J.D., Yoon, J., Minzenberg, M., Carter, C.S. (2013). Age-at-onset and cognitive control-related brain circuitry in first episode schizophrenia. Presented at the annual meeting for the American College of Neuropsychopharmacology.

Nash, M.I., **Ashby, S.R.**, & Kirwan, C.B. (2013). Using multi-voxel pattern analysis to differentiate between remembering and imagining within the hippocampus: An fMRI study. Presented at the annual meeting for the Society for Neuroscience.

Niendam, T., **Ashby, S.**, Lesh, T., Correa, E., & Carter, C. (2013). Clinical and cognitive correlates of aggression in early psychosis. Presented at the annual meeting for the Society for Research in Psychopathology.

Solomon, M., Titone, M., **Ashby, S.**, Benavidez, M., Carter, C., & Niendam, T. (2013). Correlates of Autism Spectrum Disorder (ASD) traits in early psychosis. Presented at the annual meeting for the Society for Research in Psychopathology.

Smith, Q., Hartshorn, A., **Ashby, S.**, James, J., Motley, S. & Kirwan, C.B. (2011). Hippocampal volume predicts pattern separation performance. Presented at the annual meeting for the Society for Neuroscience.

PRESENTATIONS

Invited Workshop, “Distinguished Alumni Workshop: fMRI Processing using SPM8”, Brigham Young University Psychology Department, January 2014, Provo, UT.

Invited Lecture, “Preparing for Post-Baccalaureate Work in Psychology”, UC Davis Psi Chi Chapter, October 2012, Davis, CA.

VOLUNTEER EXPERIENCE

Humanitarian Expedition: 7/2008

Sunflower Home Orphanage (Urubamba, Peru)

- Assisted in the construction of new dormitories for future expansion of the orphanage
- Painted rooms for the children at the orphanage
- Built a wall to help keep the orphanage secure
- Created and carried adobe bricks from construction site to the orphanage for assembly

- Performed eye exams and glasses fittings, under the direction of an ophthalmologist, for school-aged children in the area and their teachers
- Taught hygiene skills to promote healthy living at a local elementary school to 50+ children
- Assembled hygiene/comfort kits for new children entering the orphanage