

LAUREN E. ETHRIDGE, Ph.D

University of Oklahoma
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Univ. of Oklahoma Health Sciences Center
940 NE 13th Street
Nicholson Tower, Suite 4900
Oklahoma City, Oklahoma 73104
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CURRENT POSITION

Assistant Professor of Pediatrics
Section of Developmental and Behavioral Pediatrics
University of Oklahoma Health Sciences Center
Affiliate Faculty in Psychology
University of Oklahoma

EDUCATION

May 2006 Bachelor of Arts, Cognitive Science
 Highest Honors
 The University of Georgia; Athens, GA

May 2006 Bachelor of Science, Psychology
 Highest Honors
 The University of Georgia; Athens, GA

Dec. 2011 Doctor of Philosophy, Neuroscience
 The University of Georgia; Athens, GA

July 2014 Postdoctoral Certificate in Research
 Center for Autism and Developmental Disabilities
 UT Southwestern Medical Center; Dallas, TX

RESEARCH

Jan. 2005- Research Assistant
Dec. 2005 Cognition Lab
 The University of Georgia; Athens, GA
 Supervisor: Dr. Richard Marsh

Aug. 2005- Honors Undergraduate Research Scholar
May 2006 Synesthesia and Language
 The University of Georgia; Athens, GA
 Supervisor: Dr. Brent Berlin

June 2006- June 2012	Graduate Research Assistant Cognitive and Clinical Neuroscience Lab The University of Georgia; Athens, GA Supervisor: Dr. Brett Clementz Research focus: EEG/MEG measures of sensory/cognitive processing abnormalities as endophenotypes for psychosis
July 2012- July 2014	Postdoctoral Researcher Center for Autism and Developmental Disabilities First Episode Psychosis Program UT Southwestern Medical Center, Children's Medical Center Supervisor: Dr. John Sweeney Research focus: EEG measures of sensory processing abnormalities in ASD families, Fragile X full and pre-mutation
Jan. 2015-present	Assistant Professor of Pediatrics and Psychology University of Oklahoma Health Sciences Center; Oklahoma City, OK University of Oklahoma; Norman, OK Research focus: Biomarker development as treatment outcome measures in neurodevelopmental disorders

TEACHING

Jan. 2007- May 2007	Teaching Assistant – Lab instructor Sensation and Perception The University of Georgia; Athens, GA Supervisor: Dr. James Brown
Aug. 2007- May 2010	Teaching Assistant – 4 semesters Introduction to Cognitive Neuroscience The University of Georgia; Athens, GA Supervisor: Dr. Brett Clementz
Jan. 2010	Instructor – Duke TIP Scholar Weekend Bio-Imaging The University of Georgia; Athens, GA In affiliation with Duke University Talent Identification Program, an honors program to provide unique learning experiences to gifted middle and high school students
Feb. 2010- May 2010	Instructor/Mentor – MINDS Program Scientific Method in Neuroscience The University of Georgia; Athens, GA

In affiliation with Torrance Center for Creativity and Talent Development, a UGA semester-long program for gifted students grades K-12

- Jan. 2012-
May 2012 Adjunct Psychology Instructor
Athens Technical College
- Mar. 2012 Instructor – Duke TIP Saturdays
Taste Perception
The University of Georgia; Athens, GA
In affiliation with Duke University Talent Identification Program
- Jan.2013-
Apr 2013 Supervisor – MPH Clinical/Research Internship - Riya Joshi
UT Southwestern Medical Center, in affiliation with UNT School of
Public Health
- Aug. 2014-
Dec. 2014 Instructor, Department of Psychology
University of Oklahoma; Norman, OK
- Jan. 2015-present Assistant Professor of Pediatrics
Affiliate Faculty in Psychology
University of Oklahoma Health Sciences Center; Oklahoma City, OK
University of Oklahoma; Norman, OK

Undergraduate Level Courses taught:
PSYC1101 – Introductory Psychology
PSY1113 – Elements of Psychology
PSY2003 – Introduction to Statistics
PSY3803 – Physiological Psychology
PSY3114 – Research Methods in Psychology

HONORS AND AWARDS

- Aug. 2007-
May 2009 Paul D. Coverdell Neuroimaging Program Franklin Foundation
Fellowship. Includes paid stipend, travel and experimental costs for neuro-
imaging projects for two years of graduate study.
- May 2008 Multi-modal Short Course participant at the Martinos Center for
Biomedical Imaging
- Apr. 2010 University of Georgia Graduate School Foreign Travel Grant (\$400)
- May 2010 UGA Outstanding Teaching Assistant Award (University-wide)
- Oct. 2010 Participant in NIH National Graduate Student Research Festival. Fully
funded from NIH.
- Dec. 2014 Co-author paper one of “Top 3 Most Downloaded Papers for 2014 in
Journal of Neurodevelopmental Disorders”, this paper (Wang et al., 2013)
also awarded permanent “Highly Accessed” metric on BioMed Central
- July 2016 College of Medicine Alumni Research Scholar

Nov 2016

Appointed as a Faculty Fellow of the Headington Residential College, OU
Norman

PUBLICATIONS

- Ethridge, L.E.**, Brahmabhatt, S., Gao, Y., McDowell, J.E., Clementz, B.A. (2009). Consider the context: blocked versus interleaved presentation of antisaccade trials. *Psychophysiology*, 46(5): 1100-7.
- Knight, J.B., **Ethridge, L.E.**, Marsh, R.L., Clementz, B.A. (2010). Neural correlates of attentional and mnemonic processing in event-based prospective memory. *Frontiers in Human Neuroscience*, Feb.9; 4:5. doi:10.3389/neuro.09.005.2010
- Hamm, J.P., Dyckman, K.A., **Ethridge, L.E.**, McDowell, J.E., Clementz, B.A. (2010). Preparatory activations across a distributed cortical network determine production of express saccades in humans. *Journal of Neuroscience*, 30(21): 7350-7.
- Ethridge, L.E.**, Moratti, S., Gao, Y., Keil, A., Clementz, B.A. (2011). Sustained versus transient brain responses in schizophrenia: The role of intrinsic neural activity. *Schizophrenia Research*, 133:106-111.
- Hamm, J.P., **Ethridge, L.E.**, Shapiro, J.R., Stevens, M.C., Boutros, N.N., Summerfelt, A.T., Keshavan, M.S., Sweeney, J.A., Pearlson, G., Tamminga, C.A., Thaker, G., Clementz, B.A. (2012) Spatio-temporal and frequency domain analysis of auditory paired stimuli processing in schizophrenia and psychotic bipolar disorder. *Psychophysiology*, 49(4):522-530.
- Ethridge, L.E.**, Hamm, J.P., Shapiro, J.R., Thaker, G., Summerfelt, A.T., Keedy, S.K., Stevens, M.C., Pearlson, G., Boutros, N.N., Tamminga, C.A., Sweeney, J.A., Keshavan, M.S., Clementz, B.A. (2012). Neural activations during auditory oddball processing discriminating schizophrenia and psychotic bipolar disorder. *Biological Psychiatry*, 72(9):766-774.
- Ethridge, L.E.**, Malone, S.M., Iacono, W.G., Clementz, B.A. (2013) Genetic influences on composite neural activations supporting visual target identification. *Biological Psychology*, 92(2):329-341.
- Hamm, J.P., **Ethridge, L.E.**, Shapiro, J.R., Pearlson, G., Tamminga, C.A., Sweeney, J.A., Keshavan, M.S., Thaker, G., Clementz, B.A. (2013) Family history of psychosis moderates auditory neural abnormalities in non-psychotic bipolar disorder. *Bipolar Disorders*, 15: 774-786.
- Wang, J., Barstein, J., **Ethridge, L.E.**, Mosconi, M., Takarae, Y., Sweeney, J.A. (2013) Resting state EEG abnormalities in autism spectrum disorders. *Journal of Neurodevelopmental Disorders*, 5(1):24. *(“Highly accessed” designation awarded through BioMed Central)

- Hamm, J.P., **Ethridge, L.E.**, Boutros, N.N., Keshavan, M.S., Sweeney, J.A., Pearlson, G.D., Tamminga, C.A., Clementz, B.A. (2014) Diagnostic Specificity and Familiarity of Early versus Late Evoked Potentials to Auditory Paired-Stimuli across the Schizophrenia-Bipolar Psychosis Spectrum. *Psychophysiology*, 51(4): 348-357.
- Ethridge, L.E.** Soilleux, M., Nakonezny, P.A., Reilly, J.L., Hill, S.K., Keefe, R.S.E., Gershon, E.S., Pearlson, G., Tamminga, C.A., Keshavan, M.S., Sweeney, J.A. (2014). Behavioral response inhibition in psychotic disorders: Diagnostic specificity, familiarity, and relation to generalized cognitive deficit. *Schizophrenia Research*, 159(2-3): 491-498.
- Ethridge, L.E.**, Hamm, J.P., Pearlson, G.D., Tamminga, C.A., Sweeney, J.A., Keshavan, M.S., Clementz, B.A. (2015). Event-related potential and time-frequency endophenotypes for schizophrenia and psychotic bipolar disorder. *Biological Psychiatry*, 77(2): 127-136.
- Narayanan, B., **Ethridge, L.E.**, O'Neil, K., Dunn, S., Mathew, I., Tandon, N., Calhoun, V.D., Ruano, G., Kocherla, M., Windemuth, A., Clementz, B.A., Tamminga, C.A., Sweeney, J.A., Keshavan, M.S., Pearlson, G.D. (2015). Genetic sources of subcomponents of event-related potential in the dimension of psychosis analyzed from the BSNIP study. *American Journal of Psychiatry*, 172(5): 466-478.
- Clementz, B.A., Sweeney, J.A., Hamm, J.P., Ivleva, E.I., **Ethridge, L.E.**, Pearlson, G.D., Keshavan, M., Tamminga, C.A. (2016). Identification of distinct psychosis biotypes using brain-based biomarkers. *American Journal of Psychiatry*, 173(4):373-384.
- Ethridge, L.E.**, White, S.P., Mosconi, M.W., Wang, J., Byerly, M.J., Sweeney, J.A. (2016). Reduced habituation of auditory evoked potentials indicate cortical hyperexcitability in Fragile X Syndrome. *Translational Psychiatry*, 6: e787.
- Wang, J., **Ethridge, L.E.**, Mosconi, M.W., White, S.P., Binder, D.K., Pedapati, E.V., Erickson, C. A., Byerly, M.J., Sweeney, J.A. (2017). A resting EEG study of neocortical hyperexcitability and altered functional connectivity in Fragile X Syndrome. *Journal of Neurodevelopmental Disorders*, 9:11.
- Hudgens-Haney, M.E., **Ethridge, L.E.**, Knight, J.B., McDowell, J.E., Keedy, S.K., Pearlson, G.D., Tamminga, C.A., Keshavan, M.S., Sweeney, J.A., Clementz, B.A. (2017). Intrinsic neural activity differences among psychotic illnesses. *Psychophysiology*, 54(8), 1223–1238.
- Shou, G., Mosconi, M.W., Wang, J., **Ethridge, L.E.**, Sweeney, J.A., Ding, L. (2017). Electrophysiological signatures of atypical intrinsic brain connectivity networks in autism. *Journal of Neural Engineering*, 14(4):046010.
- Ethridge, L.E.**, White, S.P., Mosconi, M.W., Wang, J., Pedapati, E.V., Erickson, C., Byerly, M.J., Sweeney, J.A. (2017). Neural synchronization deficits linked to cortical hyperexcitability and auditory sensitivity in Fragile X Syndrome. *Molecular Autism*, 8:22.

Hudgens-Haney, M.E., **Ethridge, L.E.**, Knight, J.B., McDowell, J.E., Keedy, S.K., Pearlson, G.D., Tamminga, C.A., Keshavan, M.S., Sweeney, J.A., Clementz, B.A. (2017). Psychosis subgroups differ in intrinsic neural activity but not task-specific processing. *Schizophrenia Research*, in press.

PRESENTATIONS AND CONFERENCE ABSTRACTS

Ethridge, L.E., Malone, S., Iacono, W.G., Clementz, B.A. (2007). ERP source analysis of genetic influences on early and late processing in a visual oddball task. Poster presented at Society for Psychophysiological Research 2007 Annual Meeting, Savannah, GA.

Ethridge, L.E., Brahmhatt, S., Gao, Y., McDowell, J.E., Clementz, B.A. (2008). Task parameters and task-switching: not all saccade paradigms are created equal. Poster presented at Society for Psychophysiological Research 2008 Annual Meeting, Austin, TX.

***Ethridge, L.E.**, Malone, S., Iacono, W.G., Clementz, B.A. (2009). Genetic influences on early and late processing in a visual oddball task: ERP voltage mapping and current source density measures. Talk presented at GA/SC Neuroscience Conference Annual Meeting, Athens, GA.

Knight, J.B., Ethridge, L.E., Clementz, B.A., Marsh, R.L. (2009). Neural substrates of prospective memory. Poster presented at GA/SC Neuroscience Conference Annual Meeting, Athens, GA.

Hamm, J.P., Dyckman, K.A., Ethridge, L.E., McDowell, J.E., Clementz, B.A. (2009). Pre-gap alpha phase and preparatory cortical signals during gap determine express versus regular saccade generation. Poster presented at Fifteenth International Congress on Event-Related Potentials of the Brain (EPIC), Bloomington, IN.

Ethridge, L.E., Malone, S., Iacono, W.G., Clementz, B.A. (2010). ERP voltage mapping and surface laplacian measures mediate observed genetic influences on early and late processing in a visual oddball task. Poster presented at Cognitive Neuroscience Society 2010 Annual Meeting, Montreal, Canada.

***Ethridge, L.E.**, Spillers, G.J., Unsworth, N., Clementz, B.A. (2010). Operation span capacity and attentional modulation during the antisaccade task: An EEG study. Talk presented at SENN/GASCNC Neuroscience Consortium, Atlanta, GA.

Ethridge, L.E., Reilly, J.L., Keedy, S.K., McDowell, J.E., Sweeney, J.A., Clementz, B.A. (2010). Modulation of Neural Bias Signals Preceding Anti-saccades as an Endophenotype for Schizophrenia. Poster presented at Human Brain Mapping 2010 Annual Meeting, Barcelona, Spain.

Ethridge, L.E., Reilly, J.L., Keedy, S.K., McDowell, J.E., Sweeney, J.A., Clementz, B.A. (2010). Modulation of Neural Bias Signals Preceding Anti-saccades as an

Endophenotype for Schizophrenia. Poster presented at 2010 NIH Graduate Research Festival, Bethesda, MD.

***Ethridge, L.E.** (2011). Genetic influences on composite neural activations supporting visual target identification. Invited talk at NIMH Mood and Anxiety Disorders Program, Bethesda, MD.

***Clementz, B.A., Hamm, J.P., Ethridge, L.E., Shapiro, J.** (2011). Auditory ERPs for discerning psychosis risk among bipolar and schizophrenia families. Talk presented at Society for Psychophysiological Research 2011 Annual Meeting, Boston, MA.

Ethridge, L.E., Hamm, J.P., Shapiro, J.R., Thaker, G., Summerfelt, A.T., Keedy, S.K., Stevens, M.C., Pearlson, G., Boutros, N.N., Tamminga, C.A., Sweeney, J.A., Keshavan, M.S., Clementz, B.A. (2012). Neural Activations During Auditory Oddball Processing as Endophenotypes for Schizophrenia and Psychotic Bipolar Disorder. Poster presented at UC Irvine 8th International Imaging Genetics Conference, Irvine, CA.

Ethridge, L.E., Hamm, J.P., Shapiro, J.R., Thaker, G., Summerfelt, A.T., Keedy, S.K., Stevens, M.C., Pearlson, G., Boutros, N.N., Tamminga, C.A., Sweeney, J.A., Keshavan, M.S., Clementz, B.A. (2012). Late Beta Accentuation and Decreased N2 Amplitude to Auditory Oddball Stimuli Discriminate Psychosis Groups and Co-occur in First-Degree Relatives. Poster presented at Society for Biological Psychiatry 2012 Annual Meeting, Philadelphia, PA.

Hamm, J.P., Ethridge, L.E., Shapiro, J.R., Parker, E.M., Clementz, B.A. (2012). Auditory evoked oscillations discriminate major mood and psychotic diagnoses. Poster presented at Society for Biological Psychiatry 2012 Annual Meeting, Philadelphia, PA.

Ethridge, L.E., Reilly, J.L., McDowell, J.E., Clementz, B.A., Frankovich, K., Krafft, C.E., Pierce, J.E., Keshavan, M.S., Pearlson, G., Tamminga, C.A., Thaker, G., Sweeney, J.A. (2012). Poor antisaccade performance in schizophrenia related to speed of visual orienting: a cluster analysis. Poster presented at 2012 Society for Neuroscience Annual Meeting, New Orleans, LA.

Ethridge, L.E., Reilly, J.L., Harris, M.S.H., Sweeney, J.A. (2013) Risperidone normalizes neurophysiological markers of attentional deficits in untreated first episode psychosis. Poster presented at 2013 International Congress on Schizophrenia Research Annual Meeting, Orlando, FL.

Ethridge, L.E., Hamm, J.P., Shapiro, J.R., Summerfelt, A.T., Keedy, S.K., Stevens, M.C., Pearlson, G., Tamminga, C.A., Boutros, N.N., Keshavan, M.S., Thaker, G., Clementz, B.A., Sweeney, J.A. (2013). Early sensory processing deficits during an auditory oddball task are greater than P3 abnormalities and more consistently familial across psychotic disorders. Poster presented at 2013 International Congress on Schizophrenia Research Annual Meeting, Orlando, FL.

Soilleux, M., Reilly, J., **Ethridge, L.E.**, Nakonezny, P., Hill, S., Gold, J., Gershon, E., Tamminga, C., Pearlson, G.D., Keshavan, M., Sweeney, J. (2013). Behavioral response inhibition in schizophrenia and bipolar disorder. Poster presented at 2013 International Congress on Schizophrenia Research Annual Meeting, Orlando, FL.

*Clementz, B.A., **Ethridge, L.E.**, Hamm, J.P., Reilly, J.L., Thaker, G., Tamminga, C.A., Keshavan, M., Pearlson, G.D., Sweeney, J. (2013) Multivariable indicators of distinct and shared heritable disease risk for schizophrenia and psychotic bipolar disorder families. Talk presented at 2013 International Congress on Schizophrenia Research Annual Meeting, Orlando, FL.

Ethridge, L.E., White, S.P., Mosconi, M.W., Wang, J., Greene, R., Soilleux, M., Bylery, M.J., Sweeney, J.A. (2014) Neurophysiological Correlates of Sensory Hypersensitivities in ASD and Fragile X Syndrome. Poster presented at 2014 Gordon Research Conference on Fragile X and Autism-Related Disorders, West Dover, VT.

Hayrynen, L.K., Hamm, J.P., **Ethridge, L.E.**, Tamminga, C.A., Sweeney, J.A., Pearlson, G.D., Keshavan, M.S., Clementz, B.A. (2014). Aberrant long-range neural synchronization in schizophrenia. Poster presented at Society for Psychophysiological Research 2014 Annual Meeting, Atlanta, GA.

Hudgens-Haney, M.E., **Ethridge, L.E.**, McDowell, J.E., Sweeney, J.A., Clementz, B.A. (2014). Endophenotypes discriminate psychosis groups better than clinical diagnoses. Poster presented at Society for Psychophysiological Research 2014 Annual Meeting, Atlanta, GA.

Knight, J.B., Hudgens-Haney, M.E., **Ethridge, L.E.**, Sweeney, J.A., Clementz, B.A. (2014). Abnormalities in control-modulated evoked and intrinsic oscillatory synchronization across the schizophrenia-bipolar psychosis spectrum. Poster presented at Society for Neuroscience 2014 Annual Meeting, Washington, DC.

*Hudgens-Haney, M.E., Knight, J.B., **Ethridge, L.E.**, Sweeney, J.A., Clementz, B.A. (2014). Modulation of distributed neural synchrony across the schizophrenia-bipolar spectrum. Talk presented at Society for Neuroscience 2014 Annual Meeting, Washington, DC.

Clementz, B.A., Hudgens-Haney, M.E., Knight, J.B., **Ethridge, L.E.**, Pearlson, G.D., Keshavan, M.S., Tamminga, C.A., McDowell, J.E., Sweeney, J.A. (2014). Psychosis biotypes account for variations in neural synchrony during cognitive control: findings from the Bipolar-Schizophrenia Network on Intermediate Phenotypes. Poster presented at American College of Neuropsychopharmacology 2014 Annual Meeting, Phoenix, AZ.

Hudgens-Haney, M.E., Knight, J.B., **Ethridge, L.E.**, McDowell, J.E., Sweeney, J.A., Clementz, B.A. Alpha synchrony during cognitive control across the schizophrenia-bipolar spectrum: findings from the Bipolar-Schizophrenia Network on Intermediate Phenotypes. Poster presented at International Congress on Schizophrenia Research 2015 Annual Meeting, Colorado Springs, CO.

*Clementz, B.A., Hudgens-Haney, M.E., Knight, J.B., **Ethridge, L.E.**, McDowell, J.E., Sweeney, J.A. Modulation of visual cortex activity in psychosis as a function of cognitive control during saccadic tasks. Talk presented at International Congress on Schizophrenia Research 2015 Annual Meeting, Colorado Springs, CO.

*McBride, B.J. & **Ethridge, L.E.** Early identification and treatment for autism: Moving forward with biotechnology. Grand Rounds in Pediatrics talk co-presented at University of Oklahoma Health Sciences Center, March 25, 2015; Oklahoma City, OK.

Ethridge, L.E., White, S.P., Mosconi, M.W., Wang, J., Byerly, M.J., Sweeney, J.A. Sensory processing abnormalities, ASD features, and modulation of auditory evoked potentials in Fragile X Syndrome. Poster presented at International Meeting for Autism Research 2015, Salt Lake City, UT.

*McBride, B.J. & **Ethridge, L.E.** Advances in autism. Talk/webcast presented statewide to SoonerStart staff. Oklahoma Health Department, June 25, 2015; Oklahoma City, OK.

***Ethridge, L.E.** Investigating EEG biomarkers for Autism Spectrum Disorders: Habituation to sound and sensory hypersensitivity in Fragile X Syndrome and the *fmr1* mouse model. Talk for NeuroMunch Seminar Series, Sept. 25, 2015, Norman, OK.

***Ethridge, L.E.** Investigating EEG biomarkers for Autism Spectrum Disorders: Habituation to sound and sensory hypersensitivity in Fragile X Syndrome and the *fmr1* mouse model. Invited talk to Oklahoma Center for Neuroscience Seminar Series, Oct. 2, 2015, Oklahoma City, OK.

Ethridge, L.E., White, S.P., Mosconi, M.W., Wang, J., Erickson, C.A., Byerly, M.J., Sweeney, J.A. Neural synchronization deficits linked to cortical hyper-excitability and auditory sensitivity in Fragile X Syndrome. Poster presented at the 2016 Gordon Research Conference on Fragile X and Autism-Related Disorders, West Dover, VT.

Pedapati, E., Sweeney, J., Erickson, C., **Ethridge, L.**, Mooney, L, Hong, M., Guilfoyle, J., Gilbert, D. Measurement of sensorimotor cortex inhibition using transcranial magnetic stimulation: A potential biomarker of cortical excitability in Fragile X Syndrome. Poster presented at the 2016 Gordon Research Conference on Fragile X and Autism-Related Disorders, West Dover, VT.

Ethridge, L.E., White, S.P., Mosconi, M.W., Wang, J., Erickson, C.A., Byerly, M.J., Sweeney, J.A. Neural synchronization deficits linked to cortical hyper-excitability and auditory sensitivity in Fragile X Syndrome. Poster presented at Society for Psychophysiological Research 2016 Annual Meeting, Minneapolis, MN

DeStefano, L., Wang, J., White, S.P., Mosconi, M.W., Sweeney, J.A., **Ethridge, L.E.** Auditory neural oscillatory synchronization abnormalities across the gamma frequency range in

autism spectrum disorder. Poster presented at Society for Psychophysiological Research 2016 Annual Meeting, Minneapolis, MN.

Tate, L.R., Woodruff, N., Clementz, B.A., **Ethridge., L.E.** Analysis of MEG as related to spatial transformation and top-down control of saccade behavior. Poster presented at Society for Psychophysiological Research 2016 Annual Meeting, Minneapolis, MN.

McKinzie, S., **Ethridge. L.** Neural correlates of self-perception in individuals who vary in social engagement. Poster presented at Society for Psychophysiological Research 2016 Annual Meeting, Minneapolis, MN.

*Indicates a talk. Presenter is underlined for all presentations.

GRANT FUNDING

Current.

Oklahoma Center for Neuroscience Seed Grant PI: Ethridge 2017-2018

Dense Phenotyping of Reward Processing in Comorbid ADHD+ASD

This project allows for enrollment of an extended cohort of children with comorbid ADHD+ASD, including females and those with intellectual disability, to our larger project “*Neurobiology of error monitoring as phenotypic specifiers in comorbid ADHD+ASD*” currently funded by COMAA.

Role: PI

HRSA UH4MC30745 PI: Bard 2017-2019

A Collaborative Learning Innovation for Addressing Engagement/Retention of Home Visiting Clients

This project evaluates EEG biomarkers for risk perception and impulsivity in parents at risk for abusing or neglecting their children, as well as self-control/impulsivity in their at-risk toddlers. Biomarkers will be assessed relative to engagement success in the home visiting programs as well as behavioral measures of risk perception and risk-taking behavior.

Role: Co-Investigator

OUHSC College of Medicine Alumni Association Award PI: Ethridge/Bax 2016-2018

Neurobiology of error monitoring as phenotypic specifiers in comorbid ADHD+ASD

The project evaluates neural response to errors made during a flanker task, as well as neural response to social vs non-social feedback on these errors, with the goal of parsing neural differences in attentional vs. basic processing vs. motivational activity in children with comorbid ADHD+ASD as compared to those with singular diagnoses (ASD or ADHD).

Role: PI

State of Montana PI: Byerly 2016-2017

Deep TMS for Alzheimer’s Disease

The goal of this project is to examine EEG as a treatment outcome measure for neural changes resulting from deep TMS treatment in individuals with Alzheimer’s Disease.

Role: Co-investigator

John Merck Fund PI: Portera-Cailiau/Berry-Kravis 2016-2019

GABA-mediated mechanisms of altered sensory perception in Fragile X syndrome

The goal of this project is to examine the biological mechanisms underlying tactile defensiveness in humans with FXS and rodent models of FXS with a focus on GABA mediated function.

Role: Co-investigator

Phelan McDermid Syndrome Foundation Pilot Study PI: Powell 2016-2018

Electrophysiological Biomarkers of Phelan-McDermid Syndrome

The goal of this project is to use dense phenotyping to better characterize individuals with the rare genetic disorder Phelan-McDermid Syndrome. EEG testing for basic sensory processing and speech perception will be conducted to evaluate differences and similarities between these individuals and those with FXS from other ongoing projects.

Role: Consultant

NINDS/NeuroNEXT PI: Berry-Kravis 2016-2020

Effects of AFQ056 on Language Learning in Young Children with Fragile X Syndrome (FXS)

The overall goals are to change the paradigm for development of mechanism targeted pharmacotherapy in neurodevelopmental disorders and provide a definitive test of the mGluR theory in humans by determining whether AFQ056, an mGluR5 negative modulator, can enhance neural plasticity in the form of language learning during an intensive language intervention in very young children with fragile X syndrome.

Role: Consultant

NIMH/NICHD 1U54 HD082008-01 PI: Huber/Sweeney 2014-2019

Mechanisms, circuits and treatment of FXS sensory dysfunction in mice and humans

Sub-award 150508 (PI: Ethridge) *Mechanisms of Neocortical and Sensory Hyperexcitability in Fragile X Syndrome*

The goal of the project in collaboration with UT Southwestern Medical Center is to characterize EEG phenotypes as treatment outcome measures for acute pharmacological intervention in individuals with Fragile X Syndrome. Dr. Ethridge's responsibilities include study design, EEG data quality control, advanced analysis of EEG data including coordination with rodent EEG studies from additional study sites, as well as manuscript preparation.

Role: Co-investigator

Completed.

Presbyterian Health Foundation Equipment Grant PI: Ethridge 2016-2017

Mobile EEG for Rural Research Initiatives in Under-served Communities

This equipment grant funded the purchase of a mobile research-grade EEG system for use in projects serving the State of Oklahoma, specifically projects evaluating treatment outcome in a State-wide early behavioral intervention for toddlers with autism, a home-based intervention for

parents at risk for abusing or neglecting their children, and a biomarker study of neural response to errors in children with comorbid ASD+ADHD.

Role: PI

HRSA D89MC23154 PI: Bard 2016-2017
OUHSC CCAN Independent Evaluation of the State of Oklahoma Competitive MIECHV EBHV Project

This project evaluates EEG biomarkers for social/emotional processing in parents at risk for abusing or neglecting their children, as well as social/emotional processing in their at-risk toddlers. Differentiating biomarkers will be examined for normalization following a home-visitation intervention.

Role: Co-Investigator

Singer Foundation Seed Grant PI: Carlson 2014-2015
Descriptive Study of Cardiac and Cerebrovascular Reactivity during Sleep in Preclinical Mild Cognitive Impairment with Lewy Bodies and Amnesic Mild Cognitive Impairment.

The goal of this project is to examine decreases in cerebral oxygenation and cerebrovascular reactivity changes during sleep in individuals with MCI using polysomnography and actigraphy. Dr. Ethridge's responsibilities include advanced analysis of EEG data from polysomnography recordings and manuscript preparation.

Role: Investigator

OUHSC and Presbyterian Health Foundation PI: Carlson 2014-2015
Comparison of Cerebral Oxygenation and Cerebrovascular Reactivity during Sleep in Preclinical Mild Cognitive Impairment with Lewy Bodies and Amnesic Mild Cognitive Impairment.

The goal of this project is to compare the relative influence of decreases in cerebral oxygenation and cerebrovascular reactivity changes during sleep on cognitive function in individuals with MCI using polysomnography and actigraphy. Dr. Ethridge's responsibilities include advanced analysis of EEG data from polysomnography recordings and manuscript preparation.

Role: Investigator

AFFILIATIONS AND SERVICE

Psi Chi Psychological Honors Society (2005-present)
Society for Psychophysiological Research (2007-present)
Society for Neuroscience (2007-2015)
International Society for Autism Research (2015-present)
Oklahoma Center for Neuroscience (2015-present)
Lifetime Member: Phi Beta Kappa Honors Society
Lifetime Member: Phi Eta Sigma Honors Society

Institutional Service:

OU Elite Retention Squad Member (2014-present)
University College Action Center Faculty Member for PSY1113 (2014-2015)
Judging Committee: Outstanding First Year Experience Student Award (2015)

Data and Safety Monitoring Board Member for Project DATA (PI: McBride) IRB Assessment (2015)

Faculty Advisor for inaugural chapter of Autism Speaks U University of Oklahoma (2015-present)

First Year Research Experience (FYRE) Program Faculty Mentor (2016-present)

Broader Scientific and Community Service:

Georgia Science and Engineering Fair (2010 judge)

Autism Speaks volunteer (2012 – present)

Texas Fragile X Association Volunteer (2013-2014)

Autism Piece Walk Oklahoma Autism Center Booth Volunteer (2015)

Ad-hoc reviewer for: Schizophrenia Research, PLoS ONE, Psychophysiology, Neuroscience Letters, BioMed Research International, BMC Medicine, American Journal of Psychiatry, Bipolar Disorders, Biological Psychology, Heliyon, Molecular Autism, NeuroImage, Experimental Brain Research. NeuroImage: Clinical

ADDITIONAL EXPERIENCE/WORKSHOPS

May 2008	2-Week Multi-modal Imaging Short Course at Martinos Center for Bio-Imaging
June 2010	Imaging Genetics Workshop at Organization for Human Brain Mapping Annual Meeting
Jan. 2012	SOLAR Workshop at UC Irvine International Imaging Genetics Conference
Feb. 2015	Worth Intro Psychology Teaching Workshop