

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
Affiliate Faculty in Psychology
University of Oklahoma Health Sciences Center
University of Oklahoma

EDUCATION

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| 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

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|-------------------------|--|
| Jan. 2005- Dec. 2005 | Research Assistant Cognition Lab The University of Georgia; Athens, GA Supervisor: Dr. Richard Marsh |
| Aug. 2005- May 2006 | Honors Undergraduate Research Scholar Synesthesia and Language The University of Georgia; Athens, GA Supervisor: Dr. Brent Berlin |

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| 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

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|------------------------|--|
| 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 |

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| 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 PSY3803 – Physiological Psychology PSY3114 – Research Methods in Psychology II |

HONORS AND AWARDS

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| 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 <i>Journal of Neurodevelopmental Disorders</i> ”, this paper (Wang et al., 2013) also awarded permanent “Highly Accessed” metric on BioMed Central |

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 Familiality 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. (2015). 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. Genetic sources of subcomponents of event-related potential in the dimension of psychosis analyzed from the BSNIP study. *American Journal of Psychiatry*, epub ahead of print DOI: 10.1176/appi.ajp.2014.13101411.

Clementz, B.A., Sweeney, J.A., Hamm, J.P., Ivleva, E.I., **Ethridge, L.E.**, Pearlson, G.D., Keshavan, M., Tamminga, C.A. Identification of distinct psychosis biotypes using brain-based biomarkers. *American Journal of Psychiatry*, 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., Brahmabhatt, 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 great 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.

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

GRANT FUNDING

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.

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.

Role: Investigator

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 hypersensitivity in Fragile X Syndrome

Role: Sub-award PI (data analysis site PI)

AFFILIATIONS AND SERVICE

Psi Chi Psychological Honors Society (2005-present)

Society for Psychophysiological Research (2007-2011)

Society for Neuroscience (2007-present)

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)

Broader Scientific and Community Service:

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

Georgia Science and Engineering Fair (2010 judge)

Autism Speaks volunteer (2012 – present)

Texas Fragile X Association Volunteer (2013-2014)

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

CONTINUING EDUCATION - WORKSHOPS

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| 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 |