

2001-2004 Assistant Researcher
 Institute for Brain Aging and Dementia
 University of California, Irvine

Research Interests

- spatial cognition
- attention and working memory
- perception and action in the auditory system
- normal aging and age-related cognitive disorders

Technical Experience

- Event-related potentials and EEG recording in humans
- Transcranial magnetic and electrical stimulation in humans
- Eye tracking and various psychophysiological methods in humans
- Extracellular single-unit recording in freely behaving rats
- Stereotaxic surgery, neurotoxic lesions, and electrode implantation

Membership in Professional Societies and Service

- Cognitive Neuroscience Society (CNS)
- Association for Psychological Science (APS)
- Association for Research in Otolaryngology (ARO)
- Psychonomic Society, Fellow (2017)
- Auditory Perception and Cognition Society (APCAM)
- International Evoked Response Audiometry Study group
- Editorial Boards: Clinical Neurophysiology (2011-2017), Journal of Psychophysiology (2011-Present)
- Member NIH special emphasis panel (ZRG1 ETTN-K 10), June 2012, October 2012, February 2013, June 2015, November 2017
- Member NIH Sensory and Motor Neuroscience, Cognition and Perception Fellowship Study Section (ZRG1 F02B-D), October 2013, February 2014, 2015, 2016
- Member NIH special emphasis panel (ZRG1 IFCN-Q 55), October 2014
- Member NIH special emphasis panel (ZRG1 ETTN-G (12), March 2018
- Member NIH special emphasis panel ZRG1 IFCN-Y (03), February 2018
- NIDCD reviewer for NIH loan repayment program, March 2019, March 2020
- AD hoc member NIH: Mechanisms of Sensory, Perceptual, and Cognitive Processes (SPC) Study Section, June 2014. February 2017; Cognition and Perception Study Section (CP), October 2016, June 2019

Grants and Contracts

Current

NIH (2015-2021). Principal Investigator. Shifting auditory spatial attention: cognitive and neural mechanisms. \$1,378,657 total costs.

NIH (2018-2021). Principal Investigator. Development of brain-computer interface methods to influence brain dynamics in stuttering. \$387,172 total costs.

Mitre Corp. (2020). Principal Investigator. Cyber Security Usability Assessment.
\$50,000 total costs.

Completed

NIH (2012-2017). COBRE (Jazwinski, PI). Principal investigator, Project 2. Spatial attention networks and cognitive aging. \$1,117,695 total costs.

NSF (2015-2016). (Calhoun, PI). Faculty research mentor. Developmental Chronnecto-Genomics (Dev-CoG): A Next Generation Framework for Quantifying Brain Dynamics and Related Genetic Factors in Childhood. \$2,946,389 total costs.

NSF (2009-2014). Principal Investigator. "CAREER: Cortical processing of auditory spatial information". \$768,443 total costs.

Tulane Research Enhancement Fund (2008-2010). Principal investigator. "Cognition and brain function in healthy aging". \$16,800 total costs.

Louisiana State University (2008-2009). Co-Investigator. Cognitive effects of electrical stimulation of the subthalamic nucleus. \$50,000 total costs.

NIH R01 (2002-2006). Co-investigator. "Cognitive and neurophysiological changes in mild cognitive impairment". \$1,053,530 total costs.

UC Irvine Health Sciences Research Imaging Center (2002). Principal Investigator. "Functional neuroanatomy of episodic memory in mild cognitive impairment". \$4,000 total costs.

Courses

Undergraduate:

- Cognitive Neuroscience (Tulane, PSYC/NSCI 438/638)
- Cognitive Neuroscience lab (Tulane, PSYC/NSCI 658)
- Cognitive Neuroscience (UT San Antonio, PSY 4343)

Graduate:

- Cognitive Neuroscience (Tulane, PSYC 703)
- Cognitive Psychology (Tulane, PSYC 707)
- Sensory and Motor Systems (Tulane, PSYC 708)
- Co-Director of Interdisciplinary Seminar on Aging (Tulane, AGST 702, 704)
- Human Cognition (UT San Antonio, PSY 5343)
- Applied Cognitive Psychology (UT San Antonio, PSY 7133)
- Biopsychology (UT San Antonio, PSY 7103)

Student thesis advising

- Kate Yurgil Psychology: M.S. 2008, Ph.D. 2010
- Laura Manning Psychology: M.S. 2007, Ph.D. 2011

- Lauren Stowe Psychology Ph.D. 2011
- Jeremy Nelson Neuroscience Ph.D. 2012
- Carolyn Pauker Neuroscience Ph.D. 2014
- Debra Karhson Neuroscience Ph.D. 2014
- Sandeepa Sur Aging Studies Ph.D. 2016
- Max Anderson Neuroscience M.S. 2014, Ph.D. 2018
- Lisa Chinn Psychology M.S. 2016. Ph.D. 2019 (co-advised)
- John Meyers Neuroscience M.S. 2014, Ph.D. 2019
- Stefanie Rader Neuroscience: M.S. 2006
- John Holmes Psychology: M.S. 2009
- Kelsey Ward Neuroscience: M.S. 2010
- Chris Holdgraf Neuroscience: M.S. 2010
- Michael Girgis Psychology M.S. 2013
- Xavier Readus Neuroscience M.S. 2013
- Felicia Obialo Neuroscience M.S. 2015
- Jenna Winston Neuroscience M.S. 2016
- Justin Randall Psychology M.S. 2019
- Carolyn Pauker Neuroscience: B.S. 2006, undergraduate honors thesis
- recipient of Arnold Gerall Prize in Neuroscience
- Steven Bright Neuroscience: B.S. 2007, undergraduate honors thesis
- recipient of Arnold Gerall Prize in Neuroscience
- Thomas Eskew Psychology: B.S. 2009, undergraduate honors thesis
- recipient of Rosa Cahn Hartman prize in Psychology
- Michael Seay Neuroscience: B.S. 2012, undergraduate honors thesis
- recipient of Arnold Gerall prize in Psychology
- Carly Rosen Neuroscience: B.S. 2016, undergraduate honors thesis
- recipient of Arnold Gerall prize in Psychology

Administrative experience

Department of Psychology, Tulane University

- Graduate training committee (2004 – 2015)
- 4+1 Admissions, Chair (2012 – 2016)
- Colloquium committee (2006 – 2011)
- Academic appeals committee (2007 – 2011)
- Various search committees

Program in Neuroscience, Tulane University

- Steering committee (2011 – 2016)

Tulane Center for Aging

- Colloquium committee (2008 – 2010)
- Seminar series coordinator (2008 – 2012)

School of Science and Engineering, Tulane University

- Grievance committee (2009 – 2011)

- Graduate Studies committee (2015 – 2016)

University of Texas, San Antonio

- Committee: Conflict of Interest in Research & Intellectual Property (2016 – Present)
- Graduate Admissions Committee (2016 – Present)
- Various search and advisory committees

Publications*

*Engineering conference papers in next section

Cherry K.E., Elliott E.M., Golob E.J., Brown J.S., Kim S, Jazwinski S.M. (submitted).

Strategic Encoding and Retrieval Processes in Verbal Recall among Older Adults.

Montanez R, Golob E, Xu S (submitted). Human cognition through the lens of social engineering cyberattacks.

Anderson M.T., Kaminski N.R., Mock J.R., Golob E.J. (submitted). Numbers in short-term memory bias auditory spatial perception.

Chinn L.K, Myers J.C., Sur S., Golob E.J. (submitted). Theta coherence in dynamic cognitive control networks.

Golob E.J, Nelson J.T., Scheuerman J., Venable K.B., Mock J.R. (submitted). Auditory spatial attention gradients and vigilance.

Sur S. & Golob E.J. (2020). Neural correlates of auditory sensory memory dynamics in the aging brain. *Neurobiology of Aging*, 88: 128-136.

Myers J.C., Mock J.R., Golob E.J. (2020). Listening for the self: Auditory-motor prediction facilitates perception of self-generated sounds. *Scientific Reports*, 10:1496.

Golob E.J. & Mock J.R. (2020). Dynamics of auditory spatial attention gradients. *Cognition*, 194. <https://doi.org/10.1016/j.cognition.2019.104058>

Golob E. & Mock J.R. (2019). Auditory spatial attention capture, disengagement, and response selection in normal aging. *Attention, perception, and psychophysics*, 81(1): 270-280.

Eskine K.E., Anderson A.E., Sullivan M., Golob E.J. (2018). Effects of music listening on creative cognition and semantic memory retrieval. *Psychology of Music*.

Chinn L.K., Pauker C.S., Golob E.J. (2018). Dynamics of cognitive control and midline theta activity across multiple timescales. *Neuropsychologia*. PMID: 29410123

Lutfi-Proctor D.A., Elliott E.M., Golob E.J. (2018). Spatial integration and the

- underlying mechanisms of cross-modality interference. *Journal of Cognition*, 1(1): p5, 1–15.
- Golob E.J., Lewald J., Getzmann S., Mock J.R. (2017). Numerical value biases sound localization. *Scientific Reports*, 7. PMID: 29222526
- Golob E.J., Winston J., Mock J.R. (2017). Impact of verbal and spatial short-term memory load on auditory spatial attention gradients. *Frontiers in Neuroscience*, November 6. PMID: 29218024
- Karhson D. S. & Golob E.J. (2016). Atypical sensory reactivity influence on auditory attentional control in adults with autism spectrum disorders. *Autism Research*, 9(10): 1079-1092. PMID: 26778164
- Golob E.J., Lewald J., Jungilligens J., Getzmann S. (2016). Interaction of number magnitude and stimulus position in auditory localization of speech. *Perception*, 45(1-2): 165-179. PMID: 26562857
- Getzmann S., Golob E.J., Wascher E. (2016). Focused and divided attention in a simulated cocktail-party situation: ERP evidence from younger and older adults. *Neurobiology of Aging*, 41: 138-149. PMID: 27103527
- Mock J.R., Foundas, A.L., & Golob E.J. (2016). Cortical activity during cued picture naming predicts individual differences in stuttering severity. *Clinical Neurophysiology*, 127: 3093–3101. PMID: 27472545
- Mock J.R., Seay M.J., Charney D.R., Holmes J.L., Golob E.J. (2015). Rapid cortical dynamics associated with auditory spatial attention gradients. *Frontiers in Neuroscience*, June 2. PMID: 26082679
- Mock J.R., Foundas, A.L., & Golob E.J. (2015). Speech preparation in adults with persistent developmental stuttering. *Brain and Language*, 149: 97–105. PMID: 26197258
- Karhson D. S. & Golob E.J. (2015). The role of right inferior parietal cortex in auditory spatial attention: A repetitive transcranial magnetic stimulation study. *PLOS One*. 10(12):e0144221. PMID: 26636333
- Nelson J.T., McKinley R.A., Golob E.J., Warm J.S., Parasuraman R. (2014). Enhancing vigilance in operators with prefrontal cortex transcranial direct current stimulation (tDCS). *Neuroimage*, 85: 909-917. PMID: 23235272
- Yurgil K.A. & Golob E.J. (2013). Cortical potentials in an auditory oddball task reflect individual differences in working memory capacity. *Psychophysiology*. 50(12): 1263-1274. PMID: 24016201

- Stowe L.M. & Golob E.J. (2013). Evidence that the Lombard effect is frequency-specific in humans. *Journal of the Acoustical Society of America*, 134(1): 640-7
PMID: 23862838. PMC3985863
- Foundas A.L., Mock J.R., Corey D.M., Golob E.J., Conture E.G. (2013). The speecheasy device in stuttering: Left ear-placement enhances fluency. *Brain and Language*, 26(2): 141-150. PMID: 23712191
- Mock J.R., Foundas A.L., Golob E.J. (2011). Modulation of sensory and motor cortex activity during speech preparation: an ERP and TMS study. *European Journal of Neuroscience*, 33(5):1001-1011. PMID: 21261757
- Golob E.J. & Holmes J.L. (2011). Cortical mechanisms of auditory spatial attention in a target detection task. *Brain Research*. 1384: 128-139. PMID: 21295017
- Mock J.R., Foundas A.L., Golob E.J. (2011). Selective influence of auditory distractors on motor cortex excitability. *Neuroreport*, 22(16): 830-833. PMID: 21904250
- Yurgil K. & Golob E.J. (2010). Neural activity before and after conscious perception of a multistable stimulus. *Neuropsychologia*, 48(10): 2952-2958. PMID: 20542046
- Irimajiri R., Golob E.J., Starr A (2010). ApoE genotype and auditory cortical sensory and cognitive potentials in healthy older females. *Neurobiology of Aging*, 31(10): 1799-1804. PMID: 18976833
- Golob E.J., Ringman J.M., Irimajiri R., Bright S., Schaffer B., Medina L.D., Starr A (2009). Cortical event-related potentials in preclinical familial Alzheimer's disease. *Neurology*, 73(20): 1649-1655. PMID: 19917987
- Wang H., Golob E., Bert A., Nie K, Chu Y., Dick M, Mandelkern M., Su MY (2009). Alterations in regional brain volume and individual MRI-guided perfusion in mild cognitive impairment correlated with memory function. *Journal of Geriatric Psychiatry and Neurology*, 22(1): 35-45. PMID: 19150973
- Rader S.K., Holmes, J.L., Golob E.J. (2008). Auditory event-related potentials during a spatial working memory task. *Clinical Neurophysiology*, 119: 1176-1189. PMID: 18313978
- Golob E.J., Irimajiri R., Starr A. (2007). Auditory cortical activity in amnesic mild cognitive impairment: relationship to subtype and conversion to dementia. *Brain*, 130(3): 740-52.
- Irimajiri R., Michalewski H.J., E.J. Golob, Starr A. (2007). Cholinesterase inhibitors affect somatosensory but not visual cortical activities in amnesic mild cognitive impairment. *Brain Research*, 1145:108-16.

- Wang H., Golob E.J., Su M.Y. (2006). Vascular volume and blood-brain barrier permeability in hippocampus and cerebellum measured with dynamic contrast-enhanced MRI in mild cognitive impairment. *Journal of Magnetic Resonance Imaging*, 24(3): 695-700.
- Bennett I.J., Golob E.J., Parker E.S., Starr A. (2006). Memory evaluation in mild cognitive impairment using recall and recognition tasks. *Journal of Clinical and Experimental Neuropsychology*, 28(8): 1408-1422.
- Scalise A., Pittaro-Cadore I., Golob E.J., Gigli G.L. (2006). Absence of postexercise and delayed facilitation of motor cortex excitability in restless legs syndrome: evidence of altered cortical plasticity? *Sleep*, 29(6): 770-775.
- Golob E.J., Ovasapyan V., Starr A. (2005). Event-related potentials accompanying motor preparation and stimulus expectancy in the young, young-old and oldest-old. *Neurobiology of Aging*, 26(4): 531-542
- Bassett J.P., Zugaro M.B., Muir G.M., Golob E.J., Wiener S.I., Muller R.U., Taube J.S. (2005). Passive movements of the head do not abolish anticipatory firing properties of head direction cells. *Journal of Neurophysiology*, 93(3): 1304-1316.
- Irimajiri R., Golob E.J., Starr A. (2005). Auditory brainstem, middle- and long-latency evoked potentials in mild cognitive impairment. *Clinical Neurophysiology*, 116(8): 1918-29.
- Golob E.J. & Starr A. (2004). Serial position effects in auditory event-related potentials during working memory retrieval. *Journal of Cognitive Neuroscience*, 16(1): 40-52.
- Golob E.J. & Starr A. (2004). Visual encoding differentially affects event-related potentials during working memory retrieval. *Psychophysiology*, 41(2): 186-192.
- Bennett I.J., Golob E.J., Starr A. (2004). Age-related differences in auditory event-related potentials during a cued attention task. *Clinical Neurophysiology*, 115(11): 2602-2615.
- Stackman R.W., Golob E.J., Bassett J. P., Taube J.S. (2003). Passive transport disrupts directional path integration by rat head direction cells. *Journal of Neurophysiology*, 90(5): 2862-2874.
- Golob E.J., Pratt H., Starr A. (2002). Preparatory slow potentials and event-related potentials in an auditory cued attention task. *Clinical Neurophysiology*, 113(10): 1544-1557.
- Golob E.J., Johnson J.K., Starr A. (2002). Auditory event-related potentials during target detection are abnormal in mild cognitive impairment. *Clinical Neurophysiology*,

113(1): 151-161.

Golob E.J. & Taube J.S. (2002). Influence of aversive reinforcement on reorientation in a spatial working memory task. *Behavioural Brain Research*, 136(1): 309-316.

Golob E.J., Miranda G.G., Johnson J.K., Starr A. (2001). Sensory cortical interactions in aging, mild cognitive impairment, and Alzheimer's disease. *Neurobiology of Aging*, 22(5): 755-763.

Golob E.J., Stackman R.W., Wong A.C., & Taube J.S. (2001). On the behavioral significance of head direction cells: Neural and behavioral dynamics on spatial reference and working memory tasks. *Behavioral Neuroscience*, 115(2): 285-304.

Golob E.J. & Starr A. (2000). Age-related qualitative differences in auditory cortex responsiveness as a function of memory load. *Clinical Neurophysiology*, 111(12): 2234-2244.

Golob E.J. & Starr A. (2000). Effects of stimulus sequence on event-related potentials and reaction time during target detection in Alzheimer's disease. *Clinical Neurophysiology*, 111(8): 1438-1449.

Golob E.J. & Taube J.S. (1999). Head direction cells in rats with hippocampal or overlying neocortical lesions: Evidence for impaired angular path integration. *Journal of Neuroscience*, 19(16): 7198-7211.

Golob E.J. & Taube J.S. (1998). Recordings of postsubiculum head direction cells following lesions of the laterodorsal thalamic nucleus. *Brain Research*, 780(1): 9-19.

Goodridge J.P., Dudchenko P.A., Worboys K.A., Golob E.J., & Taube J.S. (1998). Cue control and head direction cells. *Behavioral Neuroscience*, 112(4): 749-761.

Golob E.J. & Taube J.S. (1997). Head direction cells and episodic spatial information in rats without a hippocampus. *Proceedings of the National Academy of Sciences, U.S.A.*, 94, 7645-7650.

Taube J.S. & Golob E.J. (1997). Computational functions of the hippocampus: Does it encode all episodic memories? *Molecular Psychiatry*, 2(6), 442-445.

Taube J.S., Goodridge J.P., Golob E.J., Dudchenko P.A., & Stackman R.W. (1996). Processing the head direction cell signal: A review and commentary. *Brain Research Bulletin*, 40(5-6), 477-484.

Peer-reviewed conference papers, book chapters, & technical reports

Liu Z, Mock J, Huang Y, Golob E (2019). Predicting Auditory Spatial Attention from EEG using Single- and Multi-task Convolutional Neural Networks. *IEEE International Conference on Systems, Man, and Cybernetics*.

- Panwar S, Rad P, Quarles J, Golob E, Huang Y (2019). A Semi-Supervised Wasserstein Generative Adversarial Network for Classifying Driving Fatigue from EEG signals. *IEEE International Conference on Systems, Man, and Cybernetics*.
- Mock J., Myers J., Robbins K., Irani F., Golob E.J. (2019). Phase synchrony between brain regions predicts disfluent brain states in people who stutter. *American Speech-Language-Hearing Association (ASHA) annual convention*.
- Valecha R, Gonzalez A, Mock J.R., Golob E.J., Rao H.R. (2019). Investigating phishing susceptibility – An analysis of neural Measures. *Neuro-Information Systems Retreat 2019*. in *Information Systems and Neuroscience*. Editors: F. Davis, R. Riedl, J. vom Brocke, P.M. Léger, A. Randolph, T. Fischer.
- Scheuerman J, Venable K.B., Anderson M.T., Golob E.J. (2019). Modeling Spatial Auditory Attention in ACT-R: A Constraint-Based Approach. *Association for the Advancement of Artificial Intelligence conference*.
- Myers J.C., Mock J.R., Irani F., Robbins K.A., Golob E.J. (2018). Single-trial classification of disfluent brain states in adults who stutter. *IEEE International Conference on Systems, Man, and Cybernetics*.
- Chinn L.C. & Golob E.J. (2017). Attention Allocation Dynamically Responds to Context. *7th Joint IEEE International Conference on Development and Learning*.
- Scheuerman J, Venable K.B., Anderson M.T., Golob E.J. (2017). Modeling spatial auditory attention: handling equiprobable attended locations. *Cognition and Artificial Intelligence for Human-Centred Design*.
- Golob E.J., Venable K.B., Anderson M.T., Scheuerman J. (2017). Computational modeling of auditory spatial attention. *Annual Conference of the Cognitive Science Society*.
- Mock J.R., Irani F., Golob E.J. (2017). Pre-speech brain activity associated with fluent and stuttered speech. *American Speech-Language-Hearing Association annual Convention*.
- Golob E.J., Venable K.B., Anderson M.T., Benzell J.A., Scheuerman J. (2016). Modelling auditory spatial attention with constraints. *International Workshop on Artificial Intelligence and Cognition, 4th edition*.
- Dorr B, Galescu L, Golob E.J., Venable K.B., Wilks Y (2015). Companion-based Ambient Robust Intelligence (CARING). *Association for the Advancement of Artificial Intelligence, 29th Annual Meeting*.
- Golob, E.J (2015). Review of “Auditory event-related potentials to words:

Implications for Audiologists”, Jerger, Martin, Fitzharris. *International Journal of Audiology*.

Golob E.J., Pratt H., Starr A. (2009). Learning and memory in normal aging: Event-related potentials, EEG, and reaction time. pp. 107-201. in *New Encyclopedia of Neuroscience*. Larry R. Squire (Editor-in-Chief). Elsevier.

Smith L.M. & Golob E.J (2008). Assessment of stimulus-feature selectivity in self-monitoring using the Lombard effect. *American Speech-Language-Hearing Association*.

Starr A. & Golob E.J. (2006). Cognitive Factors Modulating Auditory Cortical Potentials. in *Auditory Evoked Potentials: Basic Principles and Clinical Application*. Robert Burkhard, Manny Don, Jos Eggermont (Eds.). Lippincott Williams & Wilkins.

Blair H.T., Sharp P.E., Cho J., Goodridge J.P., Stackman R.W., Golob E.J., Taube J.S. (1998). Path integration in the rat head-direction circuit. In: *Advances in Neural Information Processing Systems*. Vol. 10. D.S. Touretzky, M.C. Mozer, M.E. Hasselmo (Eds.). MIT Press.

Abstracts

Chinn L.K., Myers J.C., Golob E.J. (2018). Theta phase synchrony in a spatial cognitive control network. *Society for Neuroscience Abstracts*, 44

Myers J.C., Mock J.R., Golob E.J. (2018). Neural oscillations predict stuttering disfluency on a single trial basis. *Society for Neuroscience Abstracts*, 44

Scheuerman J., Anderson M.T., Mock J.R., Venable K.B, Golob E.J. (2018). Computational Model of Spatial Auditory Attention in ACT-R. *Cognitive Science Society*.

Golob E.J. & Mock J.R. (2018). Mismatch negativity as an index of auditory spatial attention gradients. *Association for Research in Otolaryngology*, ARO Annual Midwinter Meeting.

Valecha R., Mock J., Golob, E.J., Rao H.R. (2017). An investigation of unconscious processing of phishing messages – Towards developing an antidote to phishing victimization. *7th Annual Interdisciplinary Symposium on Decisions Neuroscience*.

Myers J., Mock J.R., Golob E.J. (2017). Feedforward motor enhancement of auditory sensory thresholds. *Cognitive Neuroscience Society*.

Golob E.J., Winston J, Mock J.R. (2017). Impact of verbal and spatial short-term memory load on auditory spatial attention gradients. *Association for Research in Otolaryngology*, ARO Annual Midwinter Meeting.

- Golob E.J., Scheuerman J., Anderson M.T., Mock J.R., Venable K.B. (2016). Computational modeling of auditory spatial attention. *Psychonomic Society*.
- Anderson MT, Scheuerman J, Benzell J.A., Venable K.B., & Golob E.J (2016). Modeling auditory spatial attention with AI constraint-based approaches. *Cognitive Neuroscience Society*.
- Mock J.R., Charney D.R., Holmes J.L., & Golob E.J. (2016). Auditory spatial attention control in the aging brain. *Cognitive Neuroscience Society*.
- Chinn L.K., Pauker C.S, & Golob E.J. (2016). Timescales of cognitive control during an auditory Simon Task. *Cognitive Neuroscience Society*.
- Golob E.J. & Mock J.R. (2016). Dynamics of auditory spatial attention gradients. *Association for Research in Otolaryngology, ARO Annual Midwinter Meeting*.
- Chinn L.K. & Golob E.J. (2015). The impact of musical experience on cognitive control during an auditory Simon task. *Association for Psychological Science Convention*.
- Anderson M.T. & Golob E.J. (2015). Numbers retained in short-term memory bias auditory spatial attention. *Association for Psychological Science Convention*.
- Anderson, A, Eskine K, Golob E. (2015). Effects of music listening on creativity and semantic memory retrieval. *Association for Psychological Science Convention*.
- Myers J.C., Mock J.R., & Golob E.J. (2014). Effects of speech motor preparation on auditory perception. *Midwest Auditory Research Conference*.
- Seay M.J., Mock J.R., & Golob E.J. (2014). Cortical representations of absolute and relative sound locations during an auditory spatial attention task. *Annual Meeting of the Society for Neuroscience*.
- Karhson D. & Golob E.J. (2014). Neural Correlates of cognitive control and attentional orienting in adults with Autism Spectrum Disorders. *International Meeting for Autism Research*.
- Sur S. & Golob E.J. (2014). Neural correlates of auditory attentional control in the Simon task. *Cognitive Aging Conference*.
- Karhson D. & Golob E.J. (2013). Perceptual load modulates neural correlates of auditory attention in Autism Spectrum Disorders. *Cognitive Neuroscience Society*.
- Charney D.R. & Golob E.J. (2012). Individual differences as a function of normal aging and working memory capacity. *Cognitive Neuroscience Society*.

- Mock J.R., Foundas A.L., Golob E.J. (2012). Speech Preparation in adults who stutter. *Cognitive Neuroscience Society*.
- Mock J.R., Foundas A.L., Golob E.J. (2012). Auditory responsiveness during a delayed naming paradigm in adults who stutter. *American Academy of Neurology*.
- Cherry K.E., Golob E.J., Elliott E.M., Silva Brown J., Yu Q., Volaufova J., Jazwinski S.M. (2011). Strategic encoding and retrieval processes in verbal recall among oldest-old adults. *The Gerontologist*, 51, 128-129.
- Pauker C.S. & Golob E.J. (2011). Effects of global probabilities on cortical processing during an auditory Simon task. *Cognitive Neuroscience Society*.
- Foundas A.L., Mock J.R., Corey D.M., Golob E.J., Conture E. (2011) Altered Auditory Feedback in Developmental Stuttering: Effects of Attention. *Neurology* 76: A506. *American Academy of Neurology*.
- Mock J.R., Foundas A.L., Golob E.J. (2010). Influence of sound location and handedness on motor-evoked potentials. *29th International Congress of Clinical Neurophysiology*.
- Karhson D.S. & Golob E.J. (2010). Influence of repetitive TMS to right inferior parietal cortex on auditory spatial processing. *Organization for Human Brain Mapping*.
- Yurgil K. & Golob E.J. (2010). Working memory capacity and neural mechanisms of attentional control. *Cognitive Neuroscience Society*.
- Karhson D.S. & Golob E.J. (2010). The effect of repetitive TMS to the right inferior parietal cortex on auditory spatial attention. *Cognitive Neuroscience Society*.
- Badr Y., Manning L., Golob E.J. Richter E. (2010). The effect of deep brain stimulation of the subthalamic nucleus on executive function in Parkinson's disease. *Louisiana Neurosurgical Society*.
- Manning L.M. & Golob E.J. (2009). Representation of key in non-verbal working memory: an event-related potential study. *Cognitive Neuroscience Society*.
- Holmes J.L. & Golob E.J. (2008). Auditory object codes and spatial attention: an event-related potential analysis. *Society for Neuroscience Abstracts*, 34.
- Nelson J.T. & Golob E.J. (2008). The effect of repetitive TMS to the left dorsolateral prefrontal cortex on auditory event-related potentials. *Society for Neuroscience Abstracts*, 34.
- Mock J.R., Foundas A.L., Golob E.J. (2008). The influence of speech-motor programming

- on auditory cortical responses. *Society for Neuroscience Abstracts*, 34.
- Holmes J.L. & Golob E.J. (2007). The influence of spatial attention and sound location on auditory event-related potentials. *Society for Neuroscience Abstracts*, 33.
- Autin K.M. & Golob E.J. (2007). Pre and post stimulus activity in dichotic listening: an auditory ERP study. *Society for Neuroscience Abstracts*, 33.
- Autin K.M. & Golob E.J. (2007). Auditory event-related potentials and perceptual judgments of speech. XX Biennial Symposium of the International Evoked Response Audiometry Study Group.
- Starr A., Golob E.J., Irimajiri R, Michalewski H.J. (2007). Sensory cortical changes accompany aging, mild cognitive decline, and dementia. XX Biennial Symposium of the International Evoked Response Audiometry Study Group.
- Golob E.J., Irimajiri R., Starr A. (2007). Auditory cortical activity is abnormal in early cognitive decline and anticipates subsequent conversion to dementia. 5th International Symposium and Workshop on "Objective Measures in Cochlear and Brainstem Implants".
- Golob E.J., Manning L.M., & Rader S.K. (2006). ERP correlates of attention and working memory. *International Organization for Psychophysiology*.
- Golob E.J. & Rader S.K (2006). Influence of sound location and behavioral relevance on auditory event-related potentials. *Society for Neuroscience Abstracts*, 32.
- Rader S.K., Manning L.K., & Golob E.J. (2006). Auditory event-related potentials and processing of speech and musical sounds during passive listening and target detection. *Society for Neuroscience Abstracts*, 32.
- Manning L.K., Brown L.E., & Golob E.J. (2005). Lateralization of auditory processing for speech and music: an event-related potential analysis. *Society for Neuroscience Abstracts*, 31.
- Rader S.K., & Golob E.J. (2005). Auditory event-related potentials during a spatial working memory task. *Society for Neuroscience Abstracts*, 31.
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Conference and invited lectures

“Brain dynamics: making the most of what you have”. Neurofeedback and biofeedback mini-conference. San Antonio, Texas. 10-19

“Predicting Auditory Spatial Attention from EEG using Single- and Multi-task Convolutional Neural Networks. IEEE International Conference on Systems, Man, and Cybernetics. Bari, Italy. 10-19

“Brain dynamics: making the most of what you have”. Louisiana State University Health Sciences Center. New Orleans, LA. Research Day Keynote. 04-19

“Eavesdropping on the brain: understanding neural codes and their applications. Texas A&M University, San Antonio. 11-18

“Attention systems and layers of intelligence”. Southern Society for Philosophy and Psychology. Keynote. 03-18

“On the role of loudness in auditory spatial attention gradients”. Annual Meeting of the Psychonomic Society. Vancouver, BC, Canada. 11-17

“Effects of numerosity on auditory spatial perception”. Armadillo research conference. Texas A&M University. College Station, TX. 10-17

“Impact of verbal and spatial short-term memory load on auditory spatial attention gradients”. Association for Research in Otolaryngology (ARO) Annual meeting. 02-17

- “Adjustments of cognitive control on different timescales”. Southeastern Psychological Association Annual Meeting. 04-16
- “Dynamics of auditory spatial cognition”. University of Texas, San Antonio. San Antonio, TX. 12-15.
- “Impact of musical experience on attention control and working memory capacity”. Southern Society for Philosophy and Psychology. New Orleans, LA. 04-15
- “Control of auditory spatial attention in normal aging”. University of South Florida. Tampa, FL. 11-14
- “Control of auditory spatial attention in normal aging”. American Psychological Association Convention. Washington, DC. 08-14
- “Music and brain aging”. Performing Arts Medicine Association satellite conference, American Medical Society for Sports Medicine. New Orleans, LA. 04-14
- “Control of spatial attention in aging”. International Conference on Aging and Cognition. Dortmund, Germany. 04-13
- “Music and brain aging”. Louisiana State University Life Course and Aging Center. Baton Rouge, LA. 02-13
- “Interactions between perception and action in the auditory system”. School of Allied Health Professions. Louisiana State University Health Sciences Center. 11-12
- “Spatial cognition and attention control”. IDeA Conference. North Dakota State University. Fargo, ND. 07-12
- “Cortical dynamics in cognitive aging”. Leibniz Centre for Working Environment and Human Factors. Dortmund, Germany. 10-11
- “EEG analyses of cortical dynamics in normal and abnormal aging”. International Cognitive Neuroscience Conference. Mallorca, Spain. 09-11
- “Spatial cognition and attention”. University of Texas, Dallas and Center for Brain Health. Dallas, TX. 02-11
- “Top-down influences on sensory processing in normal aging”. International Conference on Aging and Cognition. Dortmund, Germany. 10-10
- “Auditory cortical activity measures identify those individual mild cognitive impairment (MCI) subjects who will convert to Alzheimer’s dementia (AD)”. International Conference on Aging and Cognition. Dortmund, Germany. 10-10
- “Spatial cognition as a model system for understanding brain and cognitive aging”. Department of Psychology. Louisiana State University. 09-10
- “Top-down and bottom-up interactions in auditory cortical processing”. Dept. of Cell Biology and Anatomy. Louisiana State University. 10-09
- “Influence of speech motor programming on auditory and motor cortex responsiveness”. Israel Society for Neuroscience. Eilat, Israel. 12-08
- “Mild Cognitive impairment and dementia: a multidisciplinary approach”. Invited symposium presented at “Brain and behavior: Advances in Neuroimaging” conference. Tulane University. 12-07
- “Cortical processing of speech and sound location information in humans”. Center for Cognitive Science. University of Louisiana, Lafayette. 10-07
- “ERP correlates of attention and working memory”. Invited symposium presented at International Organization of Psychophysiology meeting. Istanbul, Turkey. 08-06.
- “Memory, aging, and early Alzheimer’s disease: A cognitive neuroscience perspective”.

- Program in Neuroscience seminar. Tulane University. 10-04.
- “Event-related potentials and mild cognitive impairment”. Invited symposium presented at EEG and Clinical Neuroscience Society Conference. Irvine, CA. 09-04.
- “Working Memory and Age-Related Changes in Brain Function”. Department of Psychology. University of South Florida. 01-04.
- “Working Memory and Age-Related Changes in Brain Function”. Department of Psychology. Texas A&M University. 01-04.
- “Working Memory and Age-Related Changes in Brain Function”. Department of Psychology. Tulane University. 12-03.
- “Neurophysiological analysis of processing speed reductions in aging and mild cognitive impairment”. Invited symposium presented at EEG and Clinical Neuroscience Society Conference. Houston, TX. 09-03.
- “Working Memory and Age-Related Changes in Brain Function. Department of Psychology and Kennedy Center. Vanderbilt University. 12-02.
- “Event-related potentials and mild cognitive impairment”. Alzheimer’s Disease Research Centers of California Annual Conference. Lake Arrowhead, CA. 10-02.
- “Event-related potentials and mild cognitive impairment”. Invited symposium presented at International Organization of Psychophysiology meeting. Montreal, Canada. 07-02.
- “Cortical Interactions, Working Memory, and Age-related Changes in Brain Function” School of Psychology, Georgia Institute of Technology. 01-02.
- “Electrophysiological dynamics of working memory retrieval”. Perception Group, Department of Cognitive Sciences, University of California, Irvine. 05-01.
- “Electrophysiological changes in mild cognitive impairment and dementia”. Co-presented with Arnold Starr at Grand Rounds, Department of Neurology, University of California, Irvine. 10-00.
- “Auditory cortical activity during working memory tasks”. Presented at “Things Auditory” Group, Department of Neurobiology and Behavior, University of California, Irvine. 05-00.
- “Strategies for early diagnosis of Alzheimer’s disease using cognitive evoked potentials”. Co-presented with Arnold Starr at Texas Tech University. 11-99

Referee:

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Journals: Neurobiology of Aging; Clinical Neurophysiology; Journal of the American Medical Association (JAMA); Cerebral Cortex; European Journal of Neuroscience; Biological Psychology; Journal of Neuroscience; Neuroimage; Behavioural Brain Research; Journal of the Acoustical Society of America; Neurology; Psychophysiology; Neuroscience Letters; Audiology and Neurotology; Neuropsychology; Journal of Neurology Neurosurgery and Psychiatry; Journal of Psychophysiology; International Journal of Psychophysiology; Neuropsychologia; Macedonian Journal of Medical

Sciences; European Journal of Psychological Assessment; Journal of Geriatric Psychiatry and Neurology; Human Brain Mapping; Journal of Alzheimer's Disease; Journal of Clinical Neurophysiology; PLOS One; Aging, Neuropsychology and Cognition; Journal of Diabetes and its Complications; Frontiers in Psychology; Intelligence; Attention, Perception, & Psychophysics