

Curriculum Vita
ELENA K. FESTA

Department of Cognitive, Linguistic & Psychological Sciences
Brown University
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EDUCATION

- 1998 Ph.D., Experimental Psychology
 “Integration mechanism for visual motion processing” (Advisor: Dr. Leslie Welch)
 Department of Psychology, Brown University, Providence, RI
- 1994 Sc.M, Experimental Psychology
 “Perceptual structure and attention: Their effects on performance in divided and selective attention tasks” (Advisor: Dr. Bryan Shepp)
 Department of Psychology, Brown University, Providence, RI
- 1992 A.B., Psychology with Psychobiology Concentration
 Department of Psychology, College of the Holy Cross, Worcester, MA

ACADEMIC APPOINTMENTS

- 2019 - Present Senior Lecturer
 Department of Cognitive, Linguistic & Psychological Sciences,
 Brown University, Providence, RI
- 2013 - 2019 Lecturer
 Department of Cognitive, Linguistic & Psychological Sciences,
 Brown University, Providence, RI
- 2011 - 2013 Dean of Pembroke College Visiting Assistant Professor
 Department of Cognitive, Linguistic & Psychological Sciences,
 Brown University, Providence, RI
- 2005 - 2011 Assistant Professor (Research)
 Department of Psychology, Brown University, Providence, RI
- 2000 - 2005 Postdoctoral Fellow in Cognitive Neuropsychology
 Department of Psychology, Brown University, Providence, RI
- 1998 - 2000 Visiting Assistant Professor (Research)
 Department of Psychology, Brown University, Providence, RI

RESEARCH INTERESTS

Cognitive neuroscience of perception, attention and memory; contributions of early life factors to risk and resilience to cognitive decline in aging; behavioral and neural correlates of sensory integration deficits in Alzheimer’s disease; applied cognitive neuroscience and driving performance in aging and dementia; combined behavioral and physiological approaches to early detection of older adults at-risk for Alzheimer’s disease.

PROFESSIONAL AFFILIATIONS

Association for Psychological Science
Cognitive Neuroscience Society
International Society to Advance Alzheimer Research and Treatment
Vision Sciences Society
International Neuropsychological Society
Society for Neuroscience

HONORS AND FELLOWSHIPS

2022	Karen T. Romer Award for Excellence in Advising Brown University, Providence, RI
2000 - 2003	National Research Service Award Postdoctoral Research Fellowship National Institutes of Health/National Institute of Aging
1996 - 1997	Dissertation Research Fellowship Award Brown University, Providence, RI
1996	Sigma Xi, Scientific Research Society Brown University Chapter
1996	National Eye Institute Travel Fellowship Grant Association for Research in Vision and Ophthalmology
1994	Conference Travel Award for CVS Symposium University of Rochester
1991 - 1992	Psi Chi National Honor Society College of the Holy Cross, Worcester, MA

RESEARCH SUPPORT

<i>Mechanisms of Risk and Resilience to Age-Related Cognitive Decline: A 60-Year Prospective Prenatal Cohort</i> National Aging Institute (1R01 AG069265-01) (Co-Investigator)	\$5,389,550 09/15/20 – 04/30/25
<i>Novel Cognitive Markers of Early Alzheimer's Disease</i> National Aging Institute (1R01 AG064002-01A1) (Principal Investigator-subcontract and Co-Investigator)	\$260,934 09/01/20 – 04/30/25
<i>Monitoring, Extracting, and Decoding Indicators of Cognitive Workload (MEDIC II-E)</i> US Army Medical Research Acquisition Activity (W81XWH20C0058) (Principal Investigator-subcontract)	\$128,680 08/10/20 – 02/09/23
<i>Comprehensive Frameworks of Perceptual Learning</i> National Eye Institute (3R01EY027841-02S1) (Consultant)	\$394,300 06/01/19 – 05/31/22
<i>Mechanisms of Motivation and Cognitive Control in Healthy Older Adults</i> Scientific Research Network on Decision Neuroscience and Aging (Co-Investigator)	\$48,413 06/01/19 – 05/31/20
<i>Combined EEG and Pupillometry Measures of Language Processing as Markers for Early Detection of Alzheimer's Disease</i> Brown University Research Seed Funding Award (Co-Investigator)	\$40,400 02/09/18 – 06/30/20
<i>Cognitive Assessment and Prediction to Promote Individualized Capability Augmentation and Reduce Decrement</i> NASA Small Business and Research Funding (SBIR-NNX16CJ08C) (Principal Investigator-subcontract)	\$59,439 06/08/16 – 12/08/17

<i>Naturalistic Assessment of the Driving Ability of Cognitively Impaired Elders</i> National Institute of Aging (2R01-AG16335-06A1) (Co-Investigator)	\$1,506,839 05/15/07 – 04/30/13
<i>Efficacy of qEEG Neurocognitive Training in Early-Stage Alzheimer's Disease</i> Alzheimer's Association (IIRG-07-59553) (Principal Investigator)	\$239,362 09/01/07 – 06/30/11
<i>Quantitative EEG and Neurofeedback in Patients with Alzheimer's Disease</i> Brown University Brain Science Program's Pilot Research Award (Principal Investigator)	\$5,000 04/01/06 – 03/31/07
<i>Using Physiological Measurements & Artificial Neural Networks to Monitor and Predict Cognitive States</i> Brown University Research Seed Funding Award (Research Associate)	\$81,620 04/01/05 – 03/31/07
<i>Multisensory Integration in Alzheimer's Disease</i> Collaboration for Translational Brain Research, Brown University (Co-Investigator)	\$19,209 11/01/03 – 10/31/04
<i>Behavioral and Electrophysiological Investigation of Semantic Memory in Alzheimer's Disease</i> Alzheimer's Association (IIRG-03-6198) (Research Associate)	\$182,160 10/01/03 – 09/30/07
<i>A Longitudinal Study of Hazardous Drivers with Dementia</i> National Institute of Aging (R01-AG16335) (Research Associate)	\$1,200,000 09/15/01 – 04/30/07
<i>Feature Integration and Attention in Alzheimer's Disease</i> National Research Service Award (F32-AG05843) (Postdoctoral Fellow)	\$113,160 06/01/00 – 05/31/03
<i>Arousal, Attention and Priming in Alzheimer's Disease</i> National Institute of Aging (R01-AG15375) (Research Associate)	\$298,916 4/01/99 – 3/31/04

PUBLICATIONS AND SUBMITTED MANUSCRIPTS (‡ denotes trainee)

- ‡Blujus, J.K., Cole, M.W., **Festa, E.K.**, Buka, S.L., Salloway, S.P., Heindel, W.C., & Oh, H., and the Alzheimer's Disease Neuroimaging Initiative. (2022). Functional redundancy of the posterior hippocampi is selectively disrupted in non-demented older adults with β -amyloid deposition, *Scientific Reports*, *submitted*.
- ‡Rmus, M., ‡He, M., Baribault, B., Walsh, E.G., **Festa, E.K.**, Collins, A.G.E., & Nassar, M. (2022). Age-related decline in prefrontal glutamate predicts failure to efficiently deploy working memory in the service of learning, *eLife*, *under revision*.
- ‡Siefert, E.M., ‡He, M., **Festa, E.K.**, & Heindel, W.C. (2022). Pupil size tracks cue-trace interactions during episodic memory retrieval, *Psychophysiology*, *under revision*.
- Wang, T, Martinez, M, **Festa, E.K.**, Heindel, W.C., & Song, J-H. (2022). Age-related enhancement in visuomotor learning by a dual-task, *Scientific Reports*, 12, 5679. <https://doi.org/10.1038/s41598-022-09553-7>.
- Matthews, N., Welch, L., **Festa, E.K.**, & Bruno A.A. (2021). Double dissociation in radial and rotational motion sensitivity, *PLOS ONE*, e0246094, <https://doi.org/10.1371/journal.pone.0246094>.

- [†]Korthauer, L.E., Heindel, W.C., [†]Lai, L.Y., Tremont, G., Ott, B.R., **Festa, E.K.** (2020). Impaired integration of object feature knowledge in amnesic mild cognitive impairment, *Neuropsychology*, 34, 699-712, <https://doi.org/10.1037/neu0000670>.
- [†]Lai, L.Y., Frömer, R., **Festa, E.K.**, & Heindel, W.C. (2020). Age-related changes in the neural dynamics of bottom-up and top-down processing during visual object recognition: An electrophysiological investigation. *Neurobiology of Aging*, 94, 38-49, <https://doi.org/10.1016/j.neurobiolaging.2020.05.010>.
- [†]He, M. Heindel, W.C., Nassar, M.R., [†]Siefert, E.M., & **Festa, E.K.** (2020). Age-related changes in the functional integrity of the phasic alerting system: A pupillometric investigation, *Neurobiology of Aging*, 91, 136-147, <https://doi.org/10.1016/j.neurobiolaging.2020.02.025>.
- Matthews N, Welch L, **Festa E.K.**, Bruno A.A., Schafer K (2020) Global depth perception alters local timing sensitivity. *PLOS ONE* 15(1): e0228080, <https://doi.org/10.1371/journal.pone.0228080>.
- [†]Lynn, A, **Festa, E.K.**, Heindel, W.C., & Amso, D. (2020). What underlies visual selective attention development? Evidence that visual selective attention performance depends on age-related improvements in visual feature binding, *Journal of Experimental Child Psychology*, 191, <https://doi.org/10.1016/j.jecp.2019.104732>.
- [†]Venkatesan, U.M., Margolis, S.A., Tremont, G., **Festa, E.K.**, & Heindel, W.C. (2020). Forward to the past: Revisiting the role of immediate recognition in the assessment of episodic memory, *Journal of Experimental and Clinical Neuropsychology*, 42(2), 160-170, <https://doi.org/10.1080/13803395.2019.1697210>.
- [†]Karpouzian-Rogers, T., Heindel, W.C., Ott, B.R., Tremont, G., & **Festa, E.K.** (2020). Phasic alerting enhances spatial orienting in healthy aging but not in mild cognitive impairment, *Neuropsychology*, 34(2), 144-154, <https://doi.org/10.1037/neu0000593>.
- Margolis, S.A., **Festa, E.K.**, Papandonatos, G.D., [†]Korthauer, L.E., [†]Gonsalves, M.A., Oberman, L.M., Heindel, W.C., Ott, B.R. (2019). Letter to the Editors: A Pilot Study of Repetitive Transcranial Magnetic Stimulation in Primary Progressive Aphasia, *Brain Stimulation*, 12, 1340-1342, <https://doi.org/10.1016/j.brs.2019.06.001>.
- [†]Korthauer, L.E., Salmon, D.P., **Festa, E.K.**, Galasko, D. & Heindel, W.C. (2019). Alzheimer's disease and the processing of uncertainty during choice task performance: Executive dysfunction within the Hick/Hyman law, *Journal of Experimental and Clinical Neuropsychology*, 41(4), 380-389, <https://doi.org/10.1080/13803395.2018.1564813>.
- Matthews, N., Welch, L., **Festa, E.** (2018) Superior visual timing sensitivity in auditory but not visual world class drum corps experts, *eNeuro*, Nov-Dec 5(6), <https://doi.org/10.1523/ENEURO.0241-18.2018>.
- Davis, J.D., Wang, S., **Festa, E.K.**, Luo, G., Moharrer, M., Bernier, J., Ott, B.R. (2018). Detection of risky driving behaviors in the naturalistic environment in healthy older adults and mild Alzheimer's disease, *Geriatrics*, 3(2), 13, <https://doi.org/10.3390/geriatrics3020013>.
- Santos, C.Y., Johnson, L.N., Sinoff, S.E., **Festa, E.K.**, Heindel, W.C., Snyder, P.J. (2018). Early change in retinal structural anatomy during the preclinical stage of Alzheimer's disease, *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*, 10, 196-209, <https://doi.org/10.1016/j.dadm.2018.01.003>.
- [†]Venkatesan, U.M., **Festa, E.K.**, Ott, B.R., & Heindel, W.C. (2018). Differential contributions of selective attention and sensory integration to driving performance in healthy aging and Alzheimer's disease, *Journal of the International Neuropsychological Society*, 24(5), 486-497, <https://doi.org/10.1017/S1355617717001291>.
- Festa, E.K.**, [†]Katz, A.P., Ott, B.R., Tremont, G. & Heindel, W.C. (2017). Dissociable effects of aging and mild cognitive impairment on bottom-up audiovisual integration, *Journal of Alzheimer's Disease*, 59, 155-167, doi 10.3233/JAD-161062.
- Landy, K.M., Salmon, D.P., Galasko, D., Filoteo, J.V., **Festa, E.K.**, Heindel, W.C., Hansen, L.A. & Hamilton, J.M. (2015). Motion discrimination in dementia with Lewy bodies and Alzheimer's disease, *Neurology*, 85, 1376-1382, <https://doi.org/10.1212/WNL.0000000000002028>.
- [†]Kane, A.E., **Festa, E.K.**, Salmon, D.P., Heindel, W.C. (2015). Repetition priming and cortical arousal in healthy aging and Alzheimer's disease, *Neuropsychologia*, 70, 145-155, <https://doi.org/10.1016/j.neuropsychologia.2015.02.024>.

- Ott, B.R., Davis, J.D., Papandonatos, G.D., Hewitt, S., **Festa, E.K.**, Heindel, W.C., Snellgrove, C.A., & Carr, D.B. (2013). Assessment of Driving-Related Skills Prediction of Unsafe Driving in Older Adults in the Office Setting, *Journal of the American Geriatrics Society*, 61, 1164-1169, <https://doi.org/10.1111/jgs.12306>.
- Matthews, N., Welch, L., **Festa, E.** & Clement, A. (2013). Remapping time across space, *Journal of Vision*, 13(8):2, 1-15, <https://doi.org/10.1167/13.8.2>.
- Heindel, W.C., **Festa, E.K.**, Ott, B.R., Landy, K., & Salmon, D.P. (2013). Prototype learning and dissociable categorization systems in Alzheimer's disease, *Neuropsychologia*, 51, 1699-1708, <https://doi.org/10.1016/j.neuropsychologia.2013.06.001>.
- Festa, E.K.**, Ott, B.R., Manning, K., Davis, J.D., & Heindel, W.C. (2013). The effect of cognitive status on self-regulatory driving behavior in older adults: An assessment of naturalistic driving using in-car video recordings, *Journal of Geriatric Psychiatry and Neurology*, 26(1), 10-18, <https://doi.org/10.1177/0891988712473801>.
- Davis, J.D., Papandonatos, G.D., Miller, L.A., Hewitt, S., **Festa, E.K.**, Heindel, W.C., & Ott, B.R. (2012). Road test and naturalistic driving performance in healthy and cognitively impaired older adults: Does environment matter? *Journal of the American Geriatrics Society*, 60, 2056-2062, <https://doi.org/10.1111/j.1532-5415.2012.04206.x>.
- Festa, E.K.**, Heindel, W.C., & Ott, B.R. (2010). Dual-task conditions modulate the efficiency of selective attention mechanisms in Alzheimer's disease, *Neuropsychologia*, 48, 3252-3261, <https://doi.org/10.1016/j.neuropsychologia.2010.07.003>.
- Daiello, L.A., Ott, B.R., **Festa, E.K.**, Friedman, M., Miller, L.A., Heindel, W.C. (2010). Effects of cholinesterase inhibitors on visual attention in drivers with Alzheimer's disease, *Journal of Clinical Psychopharmacology*, 30, 245-251, <https://doi.org/10.1097/JCP.0b013e3181da5406>.
- Ott, B.R., Heindel, W.C., Papandonatos, G.D., **Festa, E.K.**, Davis, J.D., Daiello, L.A. & Morris, J.C. (2008). A longitudinal study of drivers with dementia, *Neurology*, 70, 1171-1178, <https://doi.org/10.1212/01.wnl.0000294469.27156.30>.
- Ott, B.R., **Festa, E.K.**, Amick, M.M., Grace, J., Davis, J.D. & Heindel, W.C. (2008). Computerized maze navigation and on-road performance by drivers with dementia, *Journal of Geriatric Psychiatry and Neurology*, 21(1), 18-25, <https://doi.org/10.1177/0891988707311031>.
- Wu, L., Neskovic, P., Reyes, E., **Festa, E.** & Heindel, W. (2007). Classifying n-back EEG data using entropy and mutual information features, *European Symposium of Artificial Neural Networks (ESANN) Proceedings*, 61-66.
- Festa, E.K.**, Ott, B.R. & Heindel, W.C. (2006). Considering phasic alerting in Alzheimer's disease: Comment on Tales et al. (2006), *Neuropsychology*, 20(6), 757-760, <https://doi.org/10.1037/0894-4105.20.6.757>.
- Gitten, J.C., [†]Winer, J., **Festa, E.K.**, & Heindel, W.C. (2006). Conditional associative learning of spatial and object information in children with attention-deficit/hyperactivity disorder, *Child Neuropsychology*, 12, 39-56, <https://doi.org/10.1080/09297040500205579>.
- Festa, E.K.**, [†]Insler, R.Z., Salmon, D.P., Paxton, J., Hamilton, J.M. & Heindel, W.C. (2005). Neocortical disconnectivity disrupts sensory integration in Alzheimer's disease, *Neuropsychology*, 19(6), 728-738, <https://doi.org/10.1037/0894-4105.19.6.728>.
- Grace, J., Amick, M.M., D'Abreu, A.D., **Festa, E.K.**, Heindel, W.C., & Ott, B.R. (2005). Neuropsychological deficits associated with driving performance in patients with Parkinson's disease and Alzheimer's disease, *Journal of the International Neuropsychological Society*, 11, 766-775, <https://doi.org/10.1017/S1355617705050848>.
- Festa-Martino, E.**, Ott, B.R. & Heindel, W.C. (2004). Interactions between phasic alerting and exogenous orienting: Effects of normal aging and Alzheimer's disease, *Neuropsychology*, 18(2), 258-268, <https://doi.org/10.1037/0894-4105.18.2.258>.
- Festa-Martino, E.** & Welch, L. (2001). Motion capture depends on signal strength, *Perception*, 30(4), 489-510, <https://doi.org/10.1068/p3177>.
- Festa, E.K.** & Welch, L. (1997). Recruitment mechanisms in speed and fine-direction discrimination tasks. *Vision Research*, 37, 3129-3143, [https://doi.org/10.1016/s0042-6989\(97\)00118-1](https://doi.org/10.1016/s0042-6989(97)00118-1).

MANUSCRIPTS IN PREPARATION (‡ denotes trainee)

- Festa, E.K., Ott, B.R., & Heindel, W.C.** Preattentive binding in healthy aging and Alzheimer's disease: Neuropsychological evidence for a two-stage model of feature integration, *in preparation*.
- Festa, E.K., †He, M., †Korthauer, L.E., Ott, B.R., Heindel, W.C.** Light- and task-induced pupillary responses as indirect markers of cholinergic and noradrenergic function in prodromal Alzheimer's disease, *in preparation*.
- Heindel, W.C., Papandonatos, G.D, **Festa, E.K., & Buka, S.L.** Childhood cognitive ability and subsequent education both contribute to later-life cognition, *in preparation*.
- ‡Sant, S.M., †Cesarini, E., Heindel, W.C. & **Festa, E.K.** Repetition priming of novel geometric shapes is associated with cortical arousal in young adults but spatial attention in older adults, *in preparation*.
- ‡Cesarini, E., †Sant, S.M., Heindel, W.C. & **Festa, E.K.** Relation of neuropsychological measures of executive control to semantic processing in healthy aging, *in preparation*.
- Festa, E.K., †Sant, S.M., †Cesarini, E., †Blujus, J.K., Buka, S.L., & Heindel, W.C.** The effects of early childhood adversity on verbal fluency, *in preparation*.
- Heindel, W.C., **Festa, E.K., Santos, C.Y., †Venkatesan, U.M., Badre, D., & Snyder, P.J.** Brain β -Amyloid accumulation is associated with deficient controlled memory retrieval mechanisms in cognitively normal elderly, *in preparation*.
- Heindel, W.C., **Festa, E.K., Landy, K.M., Salmon, D.P., Filoteo, J.V., Galasko, D., Hamilton, J.M.** Impaired motion segmentation processing in Parkinson's disease, *in preparation*.
- Heindel, W.C., †He, M., †Hoang, M., †Jeong, C.Y., & **Festa, E.K.** Differential pupillary old/new memory effects under implicit versus explicit retrieval conditions, *in preparation*.
- ‡Amichetti, N., †Jeong, C.Y., Frömer, R., **Festa, E.K., & Heindel, W.C.** Assessment of changes in language processing in older adults at-risk for Alzheimer's disease using EEG and pupillometry, *in preparation*.
- Festa, E.K. & Heindel, W.C.** Phasic alerting interacts with exogenous but not endogenous attentional orienting: Evidence for a shared sensory enhancement mechanism, *in preparation*.
- ‡He, M., Heindel, W.C., & **Festa, E.K.** A modified attentional network using the Simon task: A new tool and method for assessing the attentional networks and their interactions, *in preparation*.
- ‡Figuroa, C.M., Heindel, W.C., Ott, B.R. & **Festa, E.K.** Differential contributions of bottom-up and top-down attentional processes in predicting driving performance in early Alzheimer's disease: A longitudinal examination, *in preparation*.

CONFERENCE PRESENTATIONS/ABSTRACTS (‡ denotes trainee)

- ‡Ip, J., Heindel, W.C., & **Festa, E.K.** Age-related effects of audiovisual semantic congruency on living and nonliving object perception. Cognitive Neuroscience Society Meeting, San Francisco, CA, March 25-28, 2023.
- ‡Desmond, G.M., Frömer, R., He, M., †Kim, I.Y., Heindel, W.C., & **Festa, E.K.** Bottom-up and top-down processes underlying LC-NA system activity revealed by simultaneous pupillometry and EEG. Cognitive Neuroscience Society Meeting, San Francisco, CA, March 25-28, 2023.
- ‡Kim, I.Y., **Festa, E.K., †Desmond, G.M., He, M., Heindel, W.C., & Frömer, R.** Distinct EEG markers of higher-level rule selection and lower-level response selection in a hierarchical control task. Cognitive Neuroscience Society Meeting, San Francisco, CA, March 25-28, 2023.
- ‡Jian, W., He, M., **Festa, E.K., Heindel, W.C.** Dissociable pupillary response patterns during explicit and implicit memory retrieval. Cognitive Neuroscience Society Meeting, San Francisco, CA, March 25-28, 2023.
- Gemelli, Z.T., **Festa, E.K., Heindel, W.C., †Price, S., & Korthauer, L.E.** Age-related differences in electrophysiological dynamics on a flanker and semantic retrieval task. Cognitive Neuroscience Society Meeting, San Francisco, CA, March 25-28, 2023.

- [†]Sant, S.M., [‡]Cesarini, E., Heindel, W.C., & **Festa, E.K.** Repetition priming of novel geometric shapes is associated with cortical arousal in young adults but spatial attention in older adults. International Neuropsychological Society Meeting, San Diego, CA, February 2023.
- Korthauer, L.E., **Festa, E.K.**, Gemelli, Z.T., He, M., & Heindel, W.C. Uncertainty representation in mild cognitive impairment: Comparing internally cued versus externally driven uncertainty. International Neuropsychological Society Meeting, San Diego, CA, February 2023.
- Nitschke, S., Shaff N., Wertz, C., Stone, D., Vakhtin, A., Mayer, A., **Festa, E.K.**, Heindel, W.C., Salmon, D.P., Suarez Cedeno, G., Deligtisch, A., Richardson, S.P., & Ryman, S. Compensatory functional activation during motion discrimination in Parkinson's disease. International Neuropsychological Society Meeting, San Diego, CA, February 2023.
- Bracken, B.K., Winder, A., Hager, B., Endsley, M.R., & **Festa, E.K.** Assessing Situation Awareness (SA) Using Single- or Dual-Location Functional Near Infrared Spectroscopy (fNIRS). 16th International Joint Conference on Biomedical Engineering Systems and Technologies, Lisbon, Portugal, February 2023.
- Jacobs, D.M., **Festa, E.K.**, Galasko, D.R., Salmon, D.P., Smirnov, D.S., Marangi, C.A., & Heindel, W.C. Visual sensory binding is associated with CSF neurogranin in cognitively healthy older adults. Alzheimer's Association International Conference, San Diego, CA, July 2022.
- Bracken, B.K., Winder, A., Hager, B., Endsley, M., & **Festa, E.** Assessing situation awareness (SA) and cognitive workload to maximize effectiveness of military medical training. Military Health System Research Symposium (MHSRS) 2022.
- Rmus, M., He, M., Baribault, B., **Festa, E.**, Collins, A., & Nassar, M. Reinforcement learning and working-memory changes across lifespan: Bridging cognition, computation and neuroscience. Cognitive Neuroscience Society Meeting, San Francisco, CA, April 23-26, 2022.
- Korthauer, L.E., Gemelli, Z., Price, S., **Festa, E.K.**, & Heindel, W.C. Electrophysiological dynamics of response inhibition and controlled semantic retrieval. Organization for Human Brain Mapping, Glasgow, Scotland, June 19-23, 2022.
- Blujus, J.K., Cole, M.W., **Festa, E.K.**, Correia, S., Salloway, S., Heindel, W.C., Oh, H. Right posterior hippocampal redundancy reflects brain aging without beta-amyloid deposition. Organization for Human Brain Mapping, Glasgow, Scotland, June 19-23, 2022.
- [†]Foster, R., Smith, C., **Festa, E.K.** Course Redesign for Critical Thinking and Scientific Literacy Development. Association of American Colleges and Universities, Virtual, November 5-7, 2020.
- Bracken, B.K., Leather, C., Endslev, M., **Festa, E.**, Tobyne, S., Winder, A., Farry, M. Assessing situational awareness (SA) and cognitive workload to maximize effectiveness of military medical training. Military Health System Research Symposium, Kissimmee, FL, August 24-27, 2020.
- [†]Siefert, E.M., [‡]He, M., **Festa, E.K.**, & Heindel, W.C. Cue-trace interactions during episodic memory retrieval: Synergistic ephory and the pupillary old/new effect. Context and Episodic Memory Symposium, Philadelphia, PA, August 17-19, 2020.
- Festa, E.K.**, [‡]He, M., [‡]Korthauer, L.E., Ott, B.R., Heindel, W.C. Light- and task-induced pupillary response as indirect markers of cholinergic and noradrenergic function in prodromal Alzheimer's disease. Alzheimer's Association International Conference, July 2020.
- Kavanaugh, B., Tirrell, E., McLaughlin, N., Sherman, A., Carpenter, L., **Festa, E.**, ... & Parade, S. (2020). Gamma Oscillations as a Potential Marker of Cognitive Control in Childhood Psychopathology. *Biological Psychiatry*, 87(9), S175.
- Jacobs, D.M., **Festa, E.K.**, Salmon, D.P., Galasko, D.R., Heindel, W.C. Visual sensory binding in preclinical Alzheimer's disease. Alzheimer's Association International Conference, Los Angeles, CA, July 2019.
- Matthews, N., Welch, L., **Festa, E.**, Bruno, A. Depth from motion alters radial and rotational motion-defined temporal order judgments. Vision Sciences Society, St. Pete Beach, FL, May 2019.

- Bracken, B.K., **Festa, E.K.**, [†]Sun, H.-S., Leather, C., Strangman, G. Validation of the fNIRS Pioneer™, a Portable, Durable, Rugged Functional Near-Infrared Spectroscopy (fNIRS) Device. 12th International Joint Conference on Biomedical Engineering Systems and Technologies, Prague, Czech Republic, February 2019.
- [†]Korthauer, L.E., [†]Lai, L.Y., Tremont, G., Ott, B.R., Heindel, W.C., & **Festa, E.K.** Amyloid burden is associated with perceptual binding deficits within semantic memory. International Neuropsychological Society Meeting, New York, NY, February 2019.
- [†]Karpouzian-Rogers, T., Heindel, W.C., Ott, B.R., Tremont, G., & **Festa, E.K.** Phasic alerting and exogenous attentional orienting in aging and mild cognitive impairment. International Neuropsychological Society Meeting, New York, NY, February 2019.
- Lynn, A, **Festa, E.K.**, Heindel, W.C., & Amso, D. Feature integration across the dorsal and ventral streams in childhood. FLUX: The Society for Developmental Cognitive Neuroscience, Berlin, Germany, September 2018.
- Margolis, S.A., **Festa, E.K.**, [†]Korthauer, L.E., [†]Gonsalves, M.A., Oberman, L.M., Heindel, W.C., & Ott, B.R. Repetitive Transcranial Magnetic Stimulation in Primary Progressive Aphasia and Behavioral Variant Frontotemporal Dementia: A Case Series. Alzheimer's Association International Conference, Chicago, IL, July 2018.
- Bracken, B.K., **Festa, E.K.**, [†]Sun, H.-S., Leather, C., Strangman, G., Palmon, N.; Silva, F., Pacheco, M., de Frederick, B. Development and Validation of a Portable, Durable, Rugged Functional Near-Infrared Spectroscopy (fNIRS) Device. 2nd International Neuroergonomics Conference, Philadelphia, PA, June 2018.
- Lynn, A, **Festa, E.K.**, Heindel, W.C., & Amso, D. Feature integration across the dorsal and ventral streams in childhood. Vision Sciences Society, St. Pete Beach, FL, May 2018.
- Matthews, N., Welch, L., & **Festa, E.** Visual timing sensitivity in a world class drum corps. Vision Sciences Society, St. Pete Beach, FL, May 2018.
- Welch, L., Matthews, N., **Festa, E.**, & Schafer, K. Double dissociation in radial and rotational motion-defined temporal order judgments. Vision Sciences Society, St. Pete Beach, FL, May 2018.
- [†]He, M., **Festa, E.K.**, & Heindel, W.C. A synergistic ephory account of pupillary old/new effects during episodic memory. Cognitive Neuroscience Society Meeting, Boston, MA, March 2018.
- [†]Lai, L., Heindel, W.C., & **Festa, E.K.** Stimulus integrity modulates the effect of context on object recognition. Cognitive Neuroscience Society Meeting, Boston, MA, March 2018.
- [†]Korthauer, L.E., Salmon, D.P., **Festa, E.K.**, Galasko, D., & Heindel, W.C. Response time associated with stimulus uncertainty but not response uncertainty discriminates Alzheimer's disease from healthy aging. International Neuropsychological Society Meeting, Washington D.C., February 2018.
- [†]Venkatesan, U.M., **Festa, E.K.**, Ott, B.R., & Heindel, W.C. Disentangling deficits in semantic integration and retrieval in aging and Alzheimer's disease. International Neuropsychological Society Meeting, Washington D.C., February 2018.
- [†]Venkatesan, U.M., Margolis, S.A., Heller, B., Tremont, G., **Festa, E.K.** & Heindel, W.C. Forward to the past: Revisiting the role of immediate recognition in assessing episodic memory. National Academy of Neuropsychology, Boston, MA, October 2017.
- Festa, E.K.**, Heindel, W.C., Santos, C.Y. & Snyder, P.J. Audiovisual sensory integration is sensitive to beta-amyloid load in the preclinical stage of Alzheimer's disease. Alzheimer's Association International Conference, London, England, July 2017.
- Heindel, W.C., **Festa, E.K.**, Santos, C.Y., Venkatesan, U.M., Badre, D. & Snyder, P.J. Controlled semantic retrieval is sensitive to changes in beta-amyloid load in preclinical Alzheimer's disease: A neurocognitive stress test for Alzheimer-related disruptions to frontotemporal pathways. Alzheimer's Association International Conference, London, England, July 2017.
- [†]Schwartz, A.E., **Festa, E.K.** & Heindel, W.C. Effects of timbre distortion and arousal on memory for vocal and instrumental melodies. Association for Psychological Science, Boston, MA, May 2017.

- [†]He, M., [†]Siefert, E.M., **Festa, E.K.**, Nassar, M.R., & Heindel, W.C. Characterization of task-evoked pupillary responses reflecting LC-NA activity-potential indices for cognitive reserve. Brown University's 20th Annual Mind Brain Research Day, Providence, RI, March 2017.
- [†]Lai, L., **Festa, E.K.**, Serre, T., Ott, B.R., & Heindel, W.C. Rapid visual categorization reveals disrupted ventral stream processing in early Alzheimer's disease. Cognitive Neuroscience Society Meeting, San Francisco, CA, March 2017.
- [†]Venkatesan, U.M., **Festa, E.K.**, Ott, B.R., & Heindel, W.C. What drives driving: Differences in the relationship of visual search and sensory binding to driving performance between healthy aging and Alzheimer's disease. International Neuropsychological Society Meeting, New Orleans, LA, February 2017.
- Bracken, B.K., Palmon, N., Irvin, S., Elkin-Frankston, S., Strangman, G. & **Festa, E.** Cognitive assessment and prediction to promote individualized capability augmentation and reduce decrement (CAPT PICARD). NASA Human Research Program Investigators' Workshop, Galveston, TX, January 2017.
- Festa, E.K.**, Wang, T, Heindel, W.C., & Song, J-H. The effects of cognitive aging on attentional context in visuomotor learning. Society for Neuroscience Meeting, San Diego, CA, November 2016.
- [†]Figuroa, C.M., **Festa, E.K.**, Ott, B.R., & Heindel, W.C. Sensitivity of component attentional measures to subtle cognitive changes and real-world driving performance in early Alzheimer's disease: A longitudinal examination. International Neuropsychological Society Meeting, Boston, MA, February 2016
- Festa, E.K.**, [†]Katz, A.P., Ott, B.R., & Heindel, W.C. Perceptual binding of audiovisual speech information is disrupted at the preclinical stage of Alzheimer's disease. Alzheimer's Association International Conference, Boston, MA, July 2013.
- Heindel, W.C., **Festa, E.K.**, Ott, B.R., Sofer, I., & Serre, T. Rapid visual categorization as a sensitive measure of early Alzheimer's disease. Alzheimer's Association International Conference, Boston, MA, July 2013.
- Matthews, N., Welch, L., **Festa, E.** & Clement, A. Remapping time across space. Vision Sciences Society, May 2013.
- Heindel, W.C., **Festa, E.K.**, Landy, K, & Salmon, D.P. Category learning impairments in Alzheimer's disease depends on the mode of acquisition. Cognitive Neuroscience Society Meeting, Chicago, IL, April 2012.
- Festa, E.K.**, Ott, B.R., Tremont, G., & Heindel, W.C. Impaired binding of perceptual information within semantic memory in early-stage Alzheimer's disease: Behavioral evidence for disrupted functional connectivity. Cognitive Neuroscience Society Meeting, Chicago, IL, April 2012.
- Festa, E.K.**, Ott, B.R., Tremont, G., & Heindel, W.C. Neocortical disconnectivity disrupts semantic binding in Alzheimer's disease. International Conference on Alzheimer's Disease, Paris, France, July 2011.
- Davis, J.D., Papandonatos, G.D, Miller, L.A., Knott, S.L., **Festa, E.K.**, Heindel, W.C., Barco, P, & Ott, B.R. Road Test and Naturalistic Driving Behavior in Older Adults with and without Memory Loss: Environment Matters. International Neuropsychological Society Meeting, Boston, MA, February 2011.
- Festa, E.K.** & Heindel, W.C. Category-specific differences in multisensory integration: An ERP investigation of semantic congruency effects for living and nonliving items. Cognitive Neuroscience Society Meeting, Montreal, Canada, April 2010.
- Festa, E.K.**, Heindel, W.C., Connors, N.C., Hirshberg, L., Ott, B.R. Neurofeedback training enhances the efficiency of cortical processing in normal aging. Cognitive Neuroscience Society Meeting, San Francisco, CA, March 2009.
- Heindel, W.C., **Festa, E.K.**, [†]Set, S., Miller, L.A., Davis, J.D., Ott, B.R. Integrating features across and within cortical streams in visual search: Differential effects of aging and Alzheimer's disease. Cognitive Neuroscience Society Meeting, San Francisco, CA, March 2009.
- Festa, E.K.**, Papandonatos, G.D., Ott, B.R., Heindel, W.C. Cognitive factors associated with longitudinal decline in driving skills in patients with Alzheimer's disease. International Conference on Alzheimer's Disease, Chicago, IL, July 2008.
- Daiello, L.A., Ott, B.R., **Festa, E.K.**, Heindel, W.C. Cholinesterase inhibitors improve visual attention in drivers with Alzheimer's disease. International Conference on Alzheimer's Disease, Chicago, IL, July 2008.

- Kane, A.E., **Festa, E.K.**, Heindel, W.C., Salmon, D.P. The integrity of priming in Alzheimer's disease depends on the nature of the representation rather than the fate of activation. International Neuropsychological Society Meeting, Waikoloa, HI, February 2008.
- Ott, B.R., Heindel W.C., Papandonatos, G., **Festa, E.K.**, Davis, J.D., Daiello, L.A., Morris, J.C. A longitudinal study of drivers with dementia, American Neurological Association, Washington D.C., October 2007.
- Festa, E.K.**, Ott, B.R., Heindel, W.C. The effect of dual-task engagement on response-selection interference in aging and Alzheimer's disease. Cognitive Neuroscience Society Meeting, New York, NY, May 2007.
- Strangman, G.E., **Festa, E.K.**,[†]Moran, L., Gitten, J.C., Heindel, W.C. Perceptual fusion of mismatched audiovisual information requires working memory: An fMRI study of the McGurk effect. Cognitive Neuroscience Society Meeting, New York, NY, May 2007.
- Heindel, W.C.,[†]Long, V.V., **Festa, E.K.**, Taylor, J.R. Category-specific effects of automatic and controlled semantic processing: An event-related potential investigation of normal and reversed semantic priming effects. Cognitive Neuroscience Society Meeting, New York, NY, May 2007.
- Davis, J.D., Tremont, G., Ott, B.R., **Festa, E.K.**, Heindel, W.C. Longitudinal analysis of neuropsychological functioning and on-road performance in drivers with mild dementia. International Neuropsychological Society Meeting, Portland, OR, February 2007.
- Ott, B.R., **Festa, E.K.**, Amick, M., Grace, J., Davis, J., Heindel, W.C. Computerized maze navigation and on-road performance in drivers with dementia. International Conference on Alzheimer's Disease and Related Disorders, Madrid, Spain, July 2006.
- Grace, J., Amick, M., D'Abreu, A., **Festa, E.K.**, Heindel, W.C., Ott, B.R. Relationship between neuropsychological tests and on-road driving in Parkinson's disease. International Neuropsychological Society Meeting, St. Louis, MO, February 2005.
- Festa-Martino, E.**,[†]Ebesutani, C. & Heindel, W.C. Phasic alerting and spatial orienting interact under peripheral but not central cuing conditions: Evidence for a selective enhancement of sensory processing. Vision Sciences Society, May 2004.
- Festa-Martino, E.**,[†]Ebesutani, C., Taylor, J.R. & Heindel, W.C. Phasic arousal selectively enhances sensory processing in exogenous orienting. Cognitive Neuroscience Society Meeting, New York, NY, March 2003.
- Festa-Martino, E.**,[†]Insler, R.Z., Salmon, D.P., Paxton, J, Hamilton, J.M. & Heindel, W.C. Impaired sensory integration in Alzheimer's disease. International Neuropsychological Society Meeting, Honolulu, HI, February 2003.
- [†]Corriveau, K., **Festa-Martino, E.**,[†]Winer, J., Gitten, J. & Heindel, W.C. Dissociation between two types of word-form priming in developmental dyslexia. International Neuropsychological Society Meeting, Honolulu, HI, February 2003.
- [†]Corriveau, K., **Festa-Martino, E.**,[†]Winer, J., Gitten, J. & Heindel, W.C. Increased visual persistence in children with developmental dyslexia. International Neuropsychological Society Meeting, Honolulu, HI, February 2003.
- [†]Winer, J., Gitten, J.,[†]Corriveau, K., **Festa-Martino, E.** & Heindel, W.C. Conditional associative learning of spatial and object information in ADHD. International Neuropsychological Society Meeting, Honolulu, HI, February 2003.
- Festa-Martino, E.**,[†]Gindes, A. & Heindel, W. Driving and covert orienting: Differential effects of dual-task conditions on selective attention and arousal. Vision Sciences Society, May 2002.
- Festa-Martino, E.**, Heindel, W & Ott, B. (2001). Differential effects of aging and Alzheimer's disease on selective attention and arousal. *Investigative Ophthalmology and Visual Science (Suppl.)*, 42, S852.
- [†]Rissman, J., Heindel, W., & **Festa-Martino, E.** Orientation-specific holistic processing of human faces. Cognitive Neuroscience Society Meeting, New York, NY, March 2001.
- Heindel, W., **Festa-Martino, E.**, & Ott, B. Retrieval from Semantic Memory: Differential effects of aging and Alzheimer's disease. Cognitive Neuroscience Society Meeting, San Francisco, CA, March 2000.

- Festa-Martino, E. & Shepp, B. (1999).** The search for features in a selective attention task. *Investigative Ophthalmology and Visual Science (Suppl.)*, 40, S346.
- Festa-Martino, E. & Shepp, B.** What's in a Name? : Some matches are better than others. Eastern Psychological Association Meeting, Boston, MA, April 1999.
- Festa, E.K. & Welch, L. (1998).** Perceived speed of motion metamer depends upon component signal strength. *Investigative Ophthalmology and Visual Science (Suppl.)*, 39, S426.
- Festa, E.K. & Welch, L.** Perceived speed of compound stimulus depends on component signal strength. Eastern Psychological Association Meeting, Boston, MA, February 1998.
- Festa, E.K. & Welch, L. (1997).** Motion capture depends on signal strength. *Investigative Ophthalmology and Visual Science (Suppl.)*, 38, S74.
- Ascher, D., Welch, L. & **Festa, E.K.** (1996). Adaptation to stationary gratings results in an increase in apparent speed of moving gratings. *Investigative Ophthalmology and Visual Science (Suppl.)*, 37, S917.
- Festa, E.K. & Welch, L. (1996).** Apparent direction does not depend on transparency/ non-transparency. *Investigative Ophthalmology and Visual Science (Suppl.)*, 37, S739.
- Festa, E.K. & Welch, L. (1995).** Multiple recruitment mechanisms in motion. *Investigative Ophthalmology and Visual Science (Suppl.)*, 36, S636.
- Festa, E.K. & Shepp, B.** Practice and encoding time affect retrieval of stimulus representation. Eastern Psychological Association Meeting, Providence, RI, April 1994.

INVITED COLLOQUIA/LECTURES

- Festa, E.K. Attentional network interactions in healthy aging and Alzheimer's disease. Invited lecture in graduate core course (CLPS2001) in the Department of Cognitive, Linguistic and Psychological Sciences, Brown University, Providence, RI, November 2021.
- Festa, E.K. Attentional processing differences in healthy aging and Alzheimer's disease. Invited lecture in graduate core course (CLPS2001) in the Department of Cognitive, Linguistic and Psychological Sciences, Brown University, Providence, RI, October 2020.
- Festa, E.K. Episodic memory in healthy aging and Alzheimer's disease. Invited lecture in graduate core course (CLPS2001) in the Department of Cognitive, Linguistic and Psychological Sciences, Brown University, Providence, RI, December 2017.
- Festa, E.K. Disrupted multisensory integration as a marker of early Alzheimer's disease. Talk presented at the Brown University Clinical Psychology Training Consortium, Alpert Medical School, June 2017.
- Festa, E.K. Effects of music on measures of arousal, mood, attention and memory: An age-related study. Talk presented at the Alzheimer's Disease and Memory Disorders Center Meeting, Rhode Island Hospital, Providence, RI, May 2012.
- Festa, E.K. Assessing the efficacy of neurofeedback training in healthy aging and Alzheimer's disease. Talk presented at the Alzheimer's Disease and Memory Disorders Center Meeting, Rhode Island Hospital, Providence, RI, March 2011.
- Festa, E.K. Attention and sensory integration in Alzheimer's disease. Invited colloquium at Roger Williams University, Bristol, RI, January 2010.
- Festa, E.K. Cognitive neuroscience: Linking mind to brain. Invited lecture in the Psychology of Consciousness undergraduate course at Roger Williams University, Bristol, RI, January 2010.
- Festa, E.K. The unraveling of sensory integration in Alzheimer's disease. Invited lecture at the Brown University Alzheimer's Activist Group, Providence, RI, December 2009.
- Festa, E.K. The ties that bind: Understanding the changes in attention and sensory integration in aging and Alzheimer's disease. Invited lecture at Laurel Meade Assisted Living Community Center, Providence, RI, March 2009.

- Festa, E.K. Breaking the ties that bind: Attention and sensory integration in Alzheimer's disease. Invited colloquium at Hamilton College, Clinton, NY, January 2009.
- Festa, E.K. Breaking the ties that bind: Attention and sensory integration in Alzheimer's disease. Invited colloquium at Syracuse University, Syracuse, NY, January 2009.
- Festa, E.K. Non-memory impairments in Alzheimer's disease: Breaking the ties that bind. Invited colloquium at Cleveland State University, Cleveland, OH, December 2008.
- Festa, E.K. Improvements in attentional processing with neurofeedback training in healthy aging. Talk presented at the Alzheimer's Disease and Memory Disorders Center Meeting, Rhode Island Hospital, Providence, RI, September 2008.
- Festa, E.K. & Heindel, W.C. Assessing the efficacy of neurofeedback training in aging and Alzheimer's disease: A cognitive neuroscience approach. Invited Talk for the 39th Annual meeting of the Applied Psychophysiology and Biofeedback Society, Daytona, FL, May 2008.
- Festa, E.K. & Heindel, W.C. A New Look at Alzheimer's Disease: Can neurofeedback training be an effective behavioral intervention? Invited Talk for the 38th Annual meeting of the Applied Psychophysiology and Biofeedback Society, Monterey, CA, February 2007.
- Festa, E.K. Sensory Integration: A potential neurocognitive marker for early detection of Alzheimer's disease. Talk presented at the Alzheimer's Disease and Memory Disorders Center Meeting, Rhode Island Hospital, Providence, RI, April 2006
- Festa-Martino, E. Beyond the forgetting: Attention, sensory integration, and neocortical dysfunction in Alzheimer's Disease. Invited colloquium at Connecticut College, New London, CT, March 2004.
- Festa-Martino, E. Recovery of Brain Function. Lecture given in the Behavioral Neuroscience Course (PY314), Connecticut College, April 2004.
- Festa-Martino, E. Effects of aging and Alzheimer's disease on spatial orienting and phasic arousal. Talk presented at the Alzheimer's Disease and Memory Disorders Clinic Meeting, Memorial Hospital, Pawtucket, RI, December 2003.
- Festa-Martino, E. Attention, arousal and driving in aging and dementia. Invited colloquium at Assumption College, Worcester, MA, February 2002.
- Festa-Martino, E. Psychophysics of color and motion processing. Lecture given in the fMRI GISP undergraduate seminar, Brown University, November 2001.
- Festa-Martino, E. Differential effects of aging and Alzheimer's disease on attention. Talk presented at the Alzheimer's Disease Memorial Hospital Research Meeting, Pawtucket, RI, February 2001.
- Festa-Martino, E. Motion capture produces metamers. Invited colloquium at Smith-Kettlewell Eye Research Institute, San Francisco, CA, April 1998.

TEACHING EXPERIENCE

Courses Taught at Brown University:

Cognitive Neuropsychology	Spring 2018, 2021, 2022, 2023
Mind, Brain & Behavior: An Interdisciplinary Approach	Fall 2017 – 2022 (6 semesters)
Directed Readings in Alzheimer's Disease and Sleep Chronobiology	Fall 2016
Seminar in Cognitive Neuropsychology	Spring 2015, 2016
Introduction to Psychology with Laboratory	Spring 2012 – 2017 (6 semesters)
Brain Damage and the Mind	2007 – 2019 (11 semesters)
Seminar in Cognitive Aging and Dementia	2009 – 2023 (10 semesters)
Seminar in Cognitive Neuroscience: Visual Attention	Fall 2007
Quantitative Methods in Psychology	Summer 2002

Advising/Student Committees at Brown University:

Cognitive Neuroscience Advisor	2022 - present
CLPS Director of Undergraduate Studies	2020 - 2022
CLPS Honors Advisor	2018 - 2019, 2020 - present
Psychology Concentrator Advisor	2014 - 2019
Undergraduate Curriculum Committee Member	2014 - 2019
Health Careers Advisory Committee	2017 - 2019
Psychology Honors Advisor	2014 - 2018
First-year Undergraduate Advisor	2013 - 2016
Sophomore Undergraduate Advisor	2008 - 2017
Graduate Student Dissertation Committee Member	2011 - 2020
Graduate Student Preliminary Exam Committee Member	2008 - 2020
Graduate Student First-year Project Committee Member	2006 - present

Research and Independent Study Supervision at Brown University (1999-Present)

Undergraduate Honors Projects (Primary advisor):

- Isaac Kim, “Age-related changes in the dynamics of cognitive flexibility: A neural systems perspective”, *to be defended in April 2023*.
- Abigail Perelman, “Neural signatures of working memory and feature binding in a motion-object tracking task”, *April 2022*
- Chris Schutte**, “Aging and the influence of gains and losses on memory encoding and retrieval: A combined behavioral and pupillometric evaluation”, *April 2021*
- Charlotte Jeong**, “The effects of aging and risk of Alzheimer’s disease on the neural dynamics of predictive processing during language comprehension: An electrophysiological investigation”, *April 2020*.
- Jennifer Dzul, “Are distractors really that distracting? A closer look into target vs distractor sensitivity in older adults”, *April 2020. (co-mentored with Amitai Shenhav)*.
- Anna Schwartz, “The effects of timbre distortions, arousal, and spatial orienting on memory for vocal and instrumental melodies”, *April 2018*.
- Mingjian He*, “Characterization of task-evoked pupillary responses reflecting LC-NA activity- potential indices for cognitive reserve”, *April 2017*
- Meghan Gonsalves, “The effect of repetitive transcranial magnetic stimulation on naming and inhibitory control in frontotemporal dementia”, *April 2017*
- Michelle Jolson, “The effects of happy versus sad mood on false memory”, *April 2016*.
- Emily Thurston*, “Influences of top-down and bottom-up factors on audiovisual speech processing”, *April 2016*.
- Allison Chernov**, “Effects of aging and Alzheimer’s disease on processing efficiency in rapid visual categorization”, *April 2013*.
- Andrew Katz, “Audiovisual speech integration in healthy aging and preclinical Alzheimer’s disease: The disruption of perceptual binding as a sensitive marker for early detection”, *April 2013*.
- Karen Duong, “Effects of healthy aging and Alzheimer’s disease on performance in a rapid visual categorization task”, *April 2012*.
- MariaLisa Itzoe, “Effects of music on measures of arousal, mood, attention, and memory: An age-related study”, *April 2012*.
- Dara Steinberg, “Selective attention in aging and Alzheimer’s disease: A laboratory assessment and relationship to naturalistic driving performance”, *April 2009*.
- Samantha Set*, “Integrating features across and within visual streams: Effects of aging and Alzheimer’s disease on visual search”, *April 2008*.

Undergraduate Honors Projects (Secondary advisor):

- Grace Desmond, “The effects of aging on neural mechanisms of cognitive reserve”, *to be defended in April 2023*.
- Eleni Gkini, “The effects of healthy and pathological aging on the bottom-up and top-down modulation of locus coeruleus activity: A pupillometric study”, *April 2021*
- Elizabeth Seifert***, “Cue/Trace interactions during episodic memory retrieval: Synergistic ephory and the pupillary old/new effect”, *April 2019*.
- Spencer Price***, “Electrophysiological dynamics of controlled semantic retrieval”, *April 2018*.
- Michelle Hoang, “Noradrenergic modulation of cortical arousal and repetition priming: A pupillometric investigation of locus coeruleus function”, *April 2017*.
- Jamie Pospishil, “Behavioral changes in frontal and temporal components of semantic processing in aging and dementia”, *April 2016*.
- Andrea Posa, “The efficacy of neurofeedback training on behavioral and electrophysiological measures in normal aging”, *April 2008*.
- Victor V. Long***, “Electrophysiological investigation of automatic and controlled processes in semantic priming”, *April 2006*.
- Caroline Habbert, “Multimodal integration amidst cortical disconnection? The McGurk effect and Alzheimer’s disease”, *April 2004*.
- Chad Ebesutani*, “Interaction between phasic arousal and exogenous orienting in normals”, *April 2003*.
- Rachel Z. Insler, “Differential effects of color and luminance information on motion perception in aging and Alzheimer’s disease”, *April 2002*.
- Jesse Rissman, “Orientation-specific holistic processing of human faces: Exploring the relationship between selective attention and perceptual representation”, *April 2000*.

****Recipient of the Harold Schlosberg Memorial Premium; **Recipient of the Muriel Fain Sher Premium;***

******Recipient of the Cognitive Neuroscience Premium***

Undergraduate Independent Studies (Primary advisor):

- Yunjong Cho, “Light and spatial perception: Utilizing Brown University’s YURT for creating a virtual reality experience”, *Fall 2019*.
- Noa Mintz & Carissa Perez, “Effects of healthy aging on motivation and cognitive control processes”, *Fall 2019*.
- Isabel Riches, “Language processing in older adults at-risk for Alzheimer’s disease using EEG and pupillometry”, *Fall 2019*.
- Abigail Perelman, Eleni Gkini & Anna Kaneb, “Effects of healthy aging on episodic memory retrieval using pupillometry”, *Fall 2019*.
- Olabade Omole, “Effect of boredom and cognitive load on EEG and fNIRS measures of brain activity in healthy young adults”, *Spring 2017*.
- Dumichel Harley, “Effect of healthy aging on rate of visuomotor learning under dual task conditions”, *Fall 2015*.
- Ming Jian He, “Assessing attentional network impairments in healthy aging and Alzheimer’s disease using ex-Gaussian reaction time distribution analyses”, *Spring 2015*.
- Gillian Michaelson, “Long-term memory for category information: Effects of mode of learning on prototype retention”, *Spring 2014*.
- Stefan Rodriguez, “Influence of lexicality and articulation on audiovisual speech perception of McGurk stimuli”, *Fall 2013*.
- Alina Petteruti, “Effect of audiovisual temporal offsets on lexical speech perception in healthy young and elderly adults”, *Fall 2012*.
- Donnelle Latimer, “Immediate effects of neurofeedback training on qEEG measures of brainwave activity in healthy elderly and Alzheimer’s disease patients”, *Fall 2011*.
- Brittany Anderson, “Category-specific effects of color information on object recognition: A behavioral investigation of the perceptual basis of semantic memory”, *Fall 2008*.
- Sarah Calaug, “Electrophysiological investigations of cross-modal semantic integration”, *Spring 2008*.

Undergraduate Independent Studies (Co-advisor):

- Cassandra Fisher, “From reminiscing to sound strengthening: an investigation of how parental reading styles are influenced by early childhood storybook reading interventions”, *Spring 2016*
- Jessica Larson, “Audiovisual integration in aging and Alzheimer’s Disease: an fMRI study”, *Spring 2006*.
- Phoenix Kalen, “Effects of aging and Alzheimer’s disease on driving performance”, *Spring 2001*.
- Anna Gindes, “Effect of attention deficits on driving performance in Alzheimer’s disease”, *Spring 2001*.
- Elizabeth Corey, “Effect of perceptual representation on illusory conjunctions”, *Fall 1999*.

PhD Graduate Students (Co-advisor):

- Wen Jian, “Relation of locus coeruleus function to memory performance”, *ongoing*.
- Jessica Ip, “Effects of healthy aging and Alzheimer’s disease on multisensory perception”, *ongoing*.
- Leslie Lai, “Age-related changes in bottom-up and top-down processing mediating visual recognition”, *April 2019*.

MSc Graduate Students (Co-advisor):

- Ming Jian He, “Effects of healthy aging on task-evoked pupillary responses: Relation of LC-NA Activity to cognitive reserve”, *April 2018*.
- Charles King, “Effects of object boundaries on attentional cueing: Support for object guided spatial attention”, *May 2007*.
- Lynelle Cortellini, “Category-specific processing within semantic memory: Effects of foveal versus parafoveal presentation”, *May 2007*.
- Ellen Goldman, “Attentional and perceptual processing in Alzheimer’s disease”, *May 2000*.

Clinical Psychology Resident Trainer (Co-advisor):

- Tatiana Karpouzian Rogers, “Arousal and Attentional Mechanisms in Aging and Alzheimer’s Disease”, July 2018- June 2019
- Laura Korthauer, “Cognitive Neuroscience of Alzheimer’s Disease”, July 2017- June 2018
- Umesh Venkatesan, “Sensory Binding and Attentional Mechanisms in Alzheimer’s disease”, *July 2016-June 2017*.
- Christina Figueroa, “Cognitive Neuroscience of Alzheimer’s Disease”, *July 2015- June 2016*.

Other Advising Roles:

Teaching UTRA Mentor: Emi Fogg & Broderick Allan, Development of “Mind, Brain and Behavior: An Interdisciplinary Approach” Course, *Summer 2017*.

Research UTRA Mentor:

- Saraphina Forman, “Analyzing graphs generated from viewing patterns of 2D art”, *Fall 2022*.
- Isaac Kim, “Age-related changes in the dynamics of cognitive flexibility: A neural systems perspective”, *Summer 2022*.
- Grace Desmond, “The effects of aging on neural mechanisms of cognitive reserve”, *Summer 2022*.
- Abigail Perelman, “Age-related changes in the neural signatures of attention in a motion-object tracking task: A combined EEG and pupillometry study”, *Summer 2021*
- Anna Schwartz, “The influence of musical auditory processing on cognitive function, mood, and arousal in healthy aging and Alzheimer’s disease”, *Summer 2016*
- Emily Thurston, “Feature binding and memory in aging and dementia”, *Summer 2015*.
- Maria Lisa Itzoe, “Age-related effects of music on measures of arousal and working memory”, *Summer 2011*.

Behavioral Decision Sciences Capstone Faculty Advisor

- Wesley Rockett, “The effects concussions on decision making in college athletes”, *Fall 2022*.
- Gianna DeVincenzo, “Aging and empathy: Effort-based prosociality decreases with age”, *Fall 2021*.

K99 Co-Advisor: Matt Nassar, “Cognitive and Molecular Challenges to Statistical Inference across Healthy Aging”, *July 2017- June 2019*.

Connecticut College Summer Internship Supervisor: Katherine McDonald, “Sensory Binding and Semantic Memory in Epilepsy Patients”, *Summer 2015*.

PROFESSIONAL ACTIVITIES AND SERVICE

Ad Hoc Reviewer for:	1996 - Present
<i>Granting Agencies</i> - Alzheimer's Association; National Science Foundation; Canada Foundation for Innovation; The Retirement Research Foundation; Belgian Alzheimer Foundation	
<i>Journals</i> - Alzheimer's & Dementia; Alzheimer's Research & Therapy; Archives of Clinical Neuropsychology; Behavioral Neuroscience; Cortex; Investigative Ophthalmology & Visual Science; Journal of Applied Gerontology; Journal of Gerontology: Psychological Science; Journal of Neurophysiology; Journal of Vision; Neurobiology of Aging; Neuropsychologia; Neuropsychology; Neuropsychology Review; Perception; PLOS; Psychological Science; Traffic Injury Prevention; Vision Research	
<i>Textbook Publishers</i> – W.W. Norton: InQuizitive Course Author for Cognition 8e; Test bank & Course Pack Quiz Reviewer for Cognition 8e; Chapter Reviewer for Psychological Sciences 7e	
Editorial Board Member of <i>Journal of Alzheimer's Disease</i>	2018
Brown University UTRA Mentoring Program	2023
Brown University Junior Faculty Mentor	2020 - 2021
Evidence-Based Teaching and Course Development Activities:	
How I Grade: Evidence-based Practices for Remote Exams <i>Harriet W. Sheridan Center for Teaching and Learning, Brown University</i>	July 2020
Anchor Online Course Design Institute (Participant and Facilitator) <i>Harriet W. Sheridan Center for Teaching and Learning, Brown University</i> <i>Digital Learning and Design, Brown University</i>	June & July 2020
Zern Endowment Curriculum Development Grant for STEM courses <i>Harriet W. Sheridan Center for Teaching and Learning, Brown University</i>	2019
Sheridan Teaching Seminar-Reflective Teaching (Certificate I) Program <i>Harriet W. Sheridan Center for Teaching and Learning, Brown University</i>	2018 - 2019
Interactive Workshop: Performing Culturally Sustaining Literacy Pedagogies <i>Harriet W. Sheridan Center for Teaching and Learning, Brown University</i>	July 2019
Writing Across the Curriculum Faculty Workshop <i>Harriet W. Sheridan Center for Teaching and Learning, Brown University</i>	June 2018
Active Learning in Large Lecture Halls Workshop <i>Harriet W. Sheridan Center for Teaching and Learning, Brown University</i>	March 2018
Scaffolding Assignments to Improve Student Learning Workshop <i>Harriet W. Sheridan Center for Teaching and Learning, Brown University</i>	February 2018
Research Development Training:	
Live Z-Score Neurofeedback Training with Brain Master Workshop <i>Stress Therapy Solutions</i>	January 2007
Matlab Programming Course <i>Department of Neuroscience, Brown University</i>	January 2003
Visiting Fellowship Program in Functional MRI <i>MGH-NMR Center, Boston, MA</i>	June 2001