

CURRICULUM VITAE

Brandon Keehn, Ph.D.

Purdue University

Speech, Language, and Hearing Sciences • Psychological Sciences
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ACADEMIC POSITIONS

7/2020 – Present	Purdue University Associate Professor, Department of Speech, Language, and Hearing Sciences Associate Professor, Department of Psychological Sciences	West Lafayette, IN
8/2014 – 6/2020	Assistant Professor, Department of Speech, Language, and Hearing Sciences Assistant Professor, Department of Psychological Sciences	
7/2011 – 8/2014	Boston Children’s Hospital / Harvard Medical School Postdoctoral Research Fellow	Boston, MA

EDUCATION

8/2006 – 6/2011	San Diego State University / University of California, San Diego Ph.D., Joint Doctoral Program in Language and Communicative Disorders	San Diego, CA
9/2000 – 6/2004	University of Washington B.S., Psychology	Seattle, WA

GRANTS

NIMH R21-MH121747: “An innovative model of early ASD diagnosis in the primary care setting: Integrating clinical evaluation and biomarkers to improve diagnostic accuracy”, 8/5/2020-8/4/2022, \$435,069 Co-PI (Co-PI: Rebecca McNally Keehn)

Showalter Trust Research Award: “Investigating the Cerebellar Crus I abnormalities in autism spectrum disorders using ultra-high resolution magnetic resonance spectroscopy imaging”, 7/1/20-6/30/21, \$75,000 (Co-PI: Uzay Emir, School of Health Sciences)

Clifford B. Kinley Trust: “An investigation of atypical sensory suppressive interactions in autism spectrum disorder”, 4/1/19-4/1/20, \$19,800 (PI)

NIMH R21-MH114095: “Understanding attentional strengths and weaknesses in autism spectrum disorder”, 5/1/18-4/30/20, \$414,785 (PI)

Launch the Future Incentive Grant: “Exploration of the attentional strengths and weaknesses of college freshmen with autism in STEM Majors: Impact on access and participation in active learning”, 7/1/18-6/30/19, \$20,500 (Co-I; Rose Mason, PI)

Purdue Autism Cluster Collaborative Research Grant: “Survey of perceived strengths and challenges of first year engineering students: Comparison of those with and without ASD”, 1/17-1/18, \$7,000 (Co-PI; Rose Mason, Co-PI)

Purdue Autism Cluster Collaborative Research Grant: “Expansion of the Purdue Autism Cluster summer camp”, 1/17-1/18, \$6,880 (Co-PI; Carolyn McCormick, Co-PI)

Gadamski Foundation: “Development of a Purdue Autism Cluster summer camp”, 9/16-9/17, \$7,600 (Co-PI; Emily Studebaker, Co-PI)

Gadamski Foundation: “Regional GABA variations in children with autism spectrum disorder: A novel 3D multi-voxel MRS investigation”, 9/16-9/17, \$8,800 (Co-PI; Ulrike Dydak, Co-PI)

Gadamski Foundation: “Development of eye-tracking technology for behavior assessment of the mouse model of Fragile X Syndrome”, 9/15-9/16, \$6,000 (Co-PI; Alex Chubykin, Co-PI)

Purdue Institute for Integrative Neuroscience: “Attentional strengths and GABAergic function in children with autism spectrum disorder”, 7/1/16-6/30/18, \$14,850 (Co-PI; Ulrike Dydak, Co-PI)

Autism Speaks: “Understanding the etiological significance of attentional disengagement in infants at-risk for ASD”, 2/1/12-7/31/14, \$95,000 (PI)

Grand Challenges Canada: “Early childhood cognitive stimulation and successful transition to preschool in a disadvantaged population in rural Pakistan”, 2/1/12-9/30/14, \$54,000 (Co-I; Aisha Yousafzai, Jelena Obradović, Co-PIs)

PEER-REVIEWED PUBLICATIONS [*indicates primary author(s); superscript numbers indicate co-author(s) mentored by the candidate: ¹undergraduate student, ²graduate student, ³postdoctoral scientist]

Takarae, Y., Zanesco, A., **Keehn, B.**, Chuckoskie, L., Müller, R-A., & Townsend, J. (2022). EEG microstates suggest atypical resting-state network activity in children and adolescents with autism spectrum disorder. *Developmental Science*.

Kadlaskar², G., Bergmann¹, S., McNally Keehn, R., Seidl, A., & **Keehn, B.** (2021). Electrophysiological measures of tactile and auditory processing in children with ASD. *Frontiers in Human Neuroscience*.

Keehn*, B., Kadlaskar², G., Bergmann¹, S., McNally Keehn, R., & Francis, A., (2021). Attentional disengagement and the locus coeruleus – norepinephrine system in children with autism spectrum disorder. *Frontiers in Integrative Neuroscience*, 15. doi: 10.3389/fnint.2021.716447

King², C. & **Keehn, B.** (2021). Implications sensory processing and attentional differences associated with autism in academic settings: An integrative review. *Frontiers in Psychiatry*, 12. doi: 10.3389/fpsy.2021.695825.

Kadlaskar², G., Bergmann¹, S., McNally Keehn, R., Seidl, A., & **Keehn, B.** (2021). Equivalent behavioral facilitation to tactile cues in children with autism spectrum disorder. *Brain Sciences*, 11(5), 625. doi.org/10.3390/brainsci11050625.

Pierce¹, S., Kadlaskar², G., Edmondson², D. A., McNally Keehn, R., Dydak, U., & **Keehn***, B. (2021). Associations between sensory processing and electrophysiological and neurochemical measures in children with ASD: An EEG-MRS study. *Journal of Neurodevelopmental Disorder*, 13, 5. doi.org/10.1186/s11689-020-09351-0.

Lory², C., Kadlaskar², G., McNally Keehn, R., Francis, A., & **Keehn***, B. (2020). Reduced heart rate variability and children with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 50(11), 4183-4190. doi: 10.1007/s10803-020-04458-8.

Wagner*, J., **Keehn, B.**, Tager-Flusberg, H., & Nelson, C.A. (2020). Attentional bias to fearful faces in infants at high risk for autism spectrum disorder. *Emotion*, 20(6), 980-992. doi: 10.1037/emo0000628.

Mash*, L.E., **Keehn, B.**, Linke, A.C., Liu, T.T., Helm, J.L., Haist, F., Townsend, J., Müller, R-A. (2020). Atypical relationships between spontaneous EEG and fMRI activity in autism. *Brain Connectivity* 10(1), 18-28. doi.org/10.1089/brain.2019.0693.

- Edmondson², D.A., Xia, P., McNally Keehn, R., Dydak, U., & **Keehn***, B. (2020) An MRS investigation of superior visual search abilities in children with autism spectrum disorder. *Autism Research* 13(4), 550-562. doi.org/10.1002/aur.2258.
- Kadlaskar², G., Seidl, A., Tager-Flusberg, H., Nelson, C.A., **Keehn***, B. (2020). Caregiver-infant audio-tactile communication in infants at-risk for autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 50(3), 1064-1072. doi.org/10.1007/s10803-019-04310-8.
- Hornung¹, T. Chan, W-H., Müller, R-A., Townsend, J. & **Keehn***, B. (2019). Dopaminergic hypo-activity and reduced theta-band power in autism spectrum disorder: A resting-state EEG study. *International Journal of Psychophysiology*, 146, 101-106. doi.org/10.1016/j.ijpsycho.2019.08.012.
- Keehn***, B., Kadlaskar², G., McNally Keehn, R., & Francis, A. (2019). Auditory attentional disengagement in children with autism spectrum disorder. *Journal of Autism and Developmental Disorders* 49, (10), 3999-4008. doi: 10.1007/s10803-019-04111-z.
- Kadlaskar², G., Seidl, A., Tager-Flusberg, H., Nelson, C.A., & **Keehn**, B. (2019). Atypical response to caregiver touch in infants at risk for autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 49(7), 2946-2955. doi: 10.1007/s10803-019-04021-0
- Keehn***, B., Westerfield, M. & Townsend, J. (2018). Cross-modal capture: Inefficient filtering in children with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 49(1), 385-390. doi: 10.1007/s10803-018-3674-y
- Keehn***, B., Westerfield, M., Müller, R-A., & Townsend, J. (2017). Autism, attention, and alpha oscillations: An electrophysiological study of attentional capture. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 2(6), 528-536. doi: 10.1016/j.bpsc.2017.06.006
- Tarullo*, A. R., Obradović, J., **Keehn, B.**, Rasheed, M. R., Siyal, S., Nelson, C. A., & Yousafzai, A. K. (2017). Gamma power in rural Pakistani children: Links to executive function and verbal ability. *Developmental Cognitive Neuroscience*, 26, 1-8. doi: 10.1016/j.dcn.2017.03.007
- Jao Keehn*, J., Sanchez, S. S., Stewart, C. R., Zhao, W., Grenesko, E. L., **Keehn, B.**, & Müller, R-A. (2017). Impaired downregulation of visual cortex during auditory processing is associated with autism symptomatology in children and adolescents with autism spectrum disorder. *Autism Research*, 10(1), 130-143. doi: 10.1002/aur.1636
- Keehn***, B. & Joseph, R.M. (2016). Exploring what's missing: What do target absent trials reveal about autism search superiority? *Journal of Autism and Developmental Disorders*, 46(5), 1686-1698. doi: 10.1007/s10803-016-2700-1
- Keehn***, B., Nair, A., Lincoln, A. J., Townsend, J., & Müller, R-A. (2016). Under-reactive but easily distracted: An fMRI investigation of attentional capture in autism spectrum disorder. *Developmental Cognitive Neuroscience*, 17, 46-56. doi: 10.1016/j.dcn.2015.12.002
- Keehn***, B. & Joseph, R.M. (2016). Slowed search in the context of unimpaired grouping in autism: Evidence from multiple conjunction search. *Autism Research*, 9(3), 333-339. doi: 10.1002/aur.1534
- Stewart*, C. R., Sanchez, S. S., Grenesko, E. L., Brown, C. M., **Keehn, B.**, Lincoln, A. J., & Müller, R-A. (2016). Sensory symptoms and processing of nonverbal auditory and visual stimuli in children with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 46(5), 1590-1601. doi: 10.1007/s10803-015-2367-z
- Keehn***, B., Vogel-Farley, V., Tager-Flusberg, H., & Nelson, C.A. (2015). Atypical hemispheric specialization for faces in infants at-risk for autism spectrum disorder. *Autism Research*, 8(2), 187-198. doi: 10.1002/aur.1438

- Joseph*, R. M., Fricker, Z., & **Keehn, B.** (2015). Activation of frontoparietal attention networks by non-predictive gaze and arrow cues. *Social Cognitive and Affective Neuroscience*, *10*(2), 294-301. doi: 10.1093/scan/nsu054
- Nair*, A., Keown, C., Datko, M., Shih, P., **Keehn, B.**, & Müller, R-A. (2014). Impact of methodological variables on functional connectivity findings in autism spectrum disorders. *Human Brain Mapping*, *35*(8), 4035-4048. doi: 10.1002/hbm.22456
- Keehn***, B., Wagner, J., Tager-Flusberg, H., & Nelson, C.A. (2013). Functional connectivity in the first year of life in infants at high risk for autism: A preliminary near-infrared spectroscopy study. *Frontiers in Human Neuroscience*, *7*. doi: 10.3389/fnhum.2013.00444
- Keehn***, B., Müller, R-A., & Townsend, J. (2013). Atypical attentional networks and the emergence of autism. *Neuroscience and Biobehavioral Reviews*, *37*(2), 164-183. doi: 10.1016/j.neubiorev.2012.11.014
- Keehn***, B., Shih, P., Brenner, L.A., Townsend, J. & Müller, R-A. (2012). Functional connectivity for an “island of sparing” in autism: An fMRI study of visual search. *Human Brain Mapping*, *34*(10), 2524-2537. doi: 10.1002/hbm.22084
- Shen*, M., Shih, P., Öttl, B., **Keehn, B.**, Leyden, K.M., Gaffrey, M.S., & Müller, R-A. (2012). Atypical lexicosemantic function of extrastriate cortex in autism spectrum disorder: Evidence from functional and effective connectivity. *Neuroimage*, *62*(3), 1780-1791. doi: 10.1016/j.neuroimage.2012.06.008
- Shih*, P., **Keehn, B.**, Oram, J., Leyden, K.M., Keown, C.L., & Müller, R-A. (2011). Atypical maturation and functional differentiation of superior temporal sulcus in autism: An fcMRI study. *Biological Psychiatry*, *70*(3), 270-277. doi: 10.1016/j.biopsych.2011.03.040
- Müller*, R-A., Shih, P., **Keehn, B.**, Deyoe, J., Leyden, K.M., & Shukla, D.K. (2011). Underconnected, but how? A survey of functional connectivity MRI studies in autism spectrum disorders. *Cerebral Cortex*, *21*(10), 2233-2243. doi: 10.1093/cercor/bhq296
- Shukla*, D.K., **Keehn, B.**, Smylie, D.M., & Müller, R-A. (2011). Microstructural abnormalities of short-distance white matter fiber tracts in autism spectrum disorder. *Neuropsychologia*, *49*(5), 1378-1382. doi: 10.1016/j.neuropsychologia.2011.02.022
- Shukla*, D.K., **Keehn, B.**, & Müller, R-A. (2011). Tract-specific analyses of diffusion tensor imaging show widespread white matter compromise in autism spectrum disorder. *Journal of Child Psychology and Psychiatry*, *52*(3), 286-295. doi: 10.1111/j.1469-7610.2010.02342.x.
- McPartland*, J.C., Webb, S.J., **Keehn, B.**, & Dawson, G. (2011). Patterns of visual attention to faces and objects in autism spectrum disorder. *Journal of Autism and Developmental Disorders*, *41*(2), 148-157. doi: 10.1007/s10803-010-1033-8
- Shukla*, D.K., **Keehn, B.**, Lincoln, A.J., & Müller, R-A. (2010). White matter compromise of callosal and subcortical fiber tracts in children with autism spectrum disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, *49*(12), 1269-1278. doi: 10.1016/j.jaac.2010.08.018
- Keehn***, B., Lincoln, A.J., Müller, R-A. & Townsend, J. (2010). Attentional networks in children and adolescents with autism spectrum disorder. *Journal of Child Psychology and Psychiatry*, *51*(11), 1251-1259. doi: 10.1111/j.1469-7610.2010.02257.x
- Shih*, P., Shen, M., Öttl, B., **Keehn, B.**, Gaffrey, M.S., & Müller, R-A. (2010). Atypical network connectivity for imitation in autism spectrum disorder. *Neuropsychologia*, *48*(10), 2931-2939. doi: 10.1016/j.neuropsychologia.2010.05.035

- Shukla*, D.K., **Keehn, B.**, & Müller, R-A. (2010). Regional homogeneity of fMRI time series in autism spectrum disorders. *Neuroscience Letters*, 476(1), 46-51. doi: 10.1016/j.neulet.2010.03.080
- Joseph*, R. M., **Keehn, B.**, Connolly, C., Wolfe, J., & Horowitz, T. (2009). Why is visual search superior in autism spectrum disorder? *Developmental Science* 12(6), 1083-1096. doi: 10.1111/j.1467-7687.2009.00855.x
- Keehn***, B., Brenner, L.A., Ramos, A.I., Lincoln, A.J., Marshall, S.P., & Müller, R-A. (2009). Brief report: Eye-movement patterns during an embedded figures test in individuals with ASD. *Journal of Autism and Developmental Disorders* 39(2), 383-387. doi: 10.1007/s10803-008-0608-0
- Keehn***, B. & Joseph, R.M. (2008). Impaired prioritization of novel onset stimuli in autism spectrum disorder. *Journal of Child Psychology and Psychiatry*, 49(12), 1296-1303. doi: 10.1111/j.1469-7610.2008.01937.x
- Keehn***, B., Brenner, L., Palmer, E., Lincoln, A. J., & Müller, R-A. (2008). Functional brain organization for visual search in ASD. *Journal of the International Neuropsychological Society*, 14(6), 990-1003. doi: 10.1017/S1355617708081356
- Joseph*, R. M., Ehrman, K., McNally, R., & **Keehn, B.** (2008). Affective response to eye contact and face recognition ability in children with ASD. *Journal of the International Neuropsychological Society*, 14(6), 947-955. doi: 10.1017/S1355617708081344

PEER-REVIEWED PUBLICATIONS UNDER REVIEW

- Lory², C., Rispoli, M., **Keehn, B.**, Mason, R., & Mason, B, Kang, S., Austin, A., Shannon, E., & Crosley, H. (under review). Repetitive behavior and heart rate variability in children with autism: Identifying subtypes through an integrated assessment model.

BOOK CHAPTERS

- Keehn***, B. (2020). Attentional Disengagement. In F. Volkmar (Ed), *Encyclopedia of Autism Spectrum Disorders* (2 ed.). New York, NY: Springer.
- Townsend*, J., **Keehn, B.**, & Westerfield, M. (2011). “Abstraction of mind”: Attention in autism. In M. I Posner (Ed.), *Cognitive Neuroscience of Attention* (2nd ed.). New York, NY: Guilford Press.

PAPER PRESENTATIONS [superscript numbers indicate co-author(s) mentored by the candidate:

¹undergraduate student, ²graduate student, ³postdoctoral scientist]

- Keehn, B.**, Kadlaskar², G., & McNally Keehn, R. (2022, May). Attentional strengths and weaknesses in autism spectrum disorder: The role of the locus coeruleus – norepinephrine system. Paper presented at the International Society for Autism Research Meeting, Austin, TX.
- McNally Keehn, R., Enneking, B., Hamrick, L., Ryan, T., Kadlaskar², G., Paxton, A., Monahan, P., Swigonski, N., Ciccarelli, M., & **Keehn, B.** (2022, May). Diagnostic accuracy within a statewide system of ASD evaluation. Paper presented at the International Society for Autism Research Meeting, Austin, TX.
- Lory², C., Rispoli, M., **Keehn, B.**, Mason, R., & Mason, B. (2022, May). Integrated assessment of repetitive behavior and heart rate variability through functional analysis and wearable technology. Paper presented at the Association for Behavioral Analysis International Annual Convention, Seattle, WA.
- Kadlaskar², G., Seidl, A., Tager-Flusberg, H., Nelson, C.A, & **Keehn, B.** (2020, July). Caregiver touch-speech communication and infants responses in 12-month-olds at high risk for autism spectrum disorder. Paper presented at the International Congress for Infant Studies, Glasgow, Scotland.
- Edmondson, D.A., Xia, P., **Keehn, B.**, & Dydak, U. (2019, May). An MRS investigation of superior visual search abilities in children with autism spectrum disorder: Evidence for enhanced top-down attentional filtering. Paper presented at the International Society for Magnetic Resonance in Medicine Meeting, Montreal, Canada.

Edmondson, D.A., Xia, P., **Keehn, B.**, & Dydak, U. (2018, June). Cortical GABA levels correlate with visual search performance in children with autism spectrum disorder. Paper presented at the International Society for Magnetic Resonance in Medicine Meeting, Paris, France.

Keehn, B. & Joseph, R. M. (2016, May). Exploring what's missing: What do target absent trials reveal about autism search superiority? Paper presented at the International Meeting for Autism Research, Baltimore, MD.

Keehn, B., Mumanachit, S.¹, Tager-Flusberg, H., & Nelson, C.A. (2015, March). Impaired social orienting in 'unaffected' siblings of children with autism spectrum disorder: A behavioral and event-related potential study. Paper presented at the biennial meeting the Society for Research in Child Development, Philadelphia, PA.

Keehn, B., Luyster, R., Vogel-Farley, V., Tager-Flusberg, H., & Nelson, C.A. (2012, May). Gamma-band activity and coherence in response to familiar and unfamiliar faces in infants at-risk for autism spectrum disorder. Paper presented at the International Meeting for Autism Research, Toronto, Canada.

Keehn, B., Westerfield, M., Lock, C., Vo, K., Zinni, M., Trauner, D., & Townsend, J. (2010, November). A comparison of overt visuospatial orienting abilities in children with autism, Williams syndrome, specific language impairment, perinatal brain lesions, and typical development. Paper presented at Neuroscience, San Diego, CA.

Shih, P., **Keehn, B.**, Oram, J., Leyden, K.M., Keown, C.L., & Müller, R-A. (2010, November). Atypical maturation and functional segregation within the posterior superior temporal sulcus in autism spectrum disorder. Paper presented at Neuroscience, San Diego, CA.

Cardinale, R.C., Shih, P., Keown, C.L., **Keehn, B.**, & Müller, R-A. (2010, November). Atypical lateralization of networks in autism spectrum disorder as detected by independent component analysis. Paper presented at Neuroscience, San Diego, CA.

Keown, C.L., Shih, P., **Keehn, B.**, & Müller, R-A. (2010, November). Investigation of functional networks with independent component analysis in autism spectrum disorder. Paper presented at Neuroscience, San Diego, CA.

Shen, M., Gaffrey, M., **Keehn, B.**, Villalobos, M., Shukla, D., & Müller, R-A. (2008, November). Functional connectivity of extrastriate cortex in autism: An fMRI study of semantic decision. Paper presented at Neuroscience, Washington D.C.

Keehn, B., Brenner, L.A., Palmer, E., Lincoln, A.J., & Müller, R-A. (2008, May). fMRI investigation of visual search in autism spectrum disorder. Paper presented at the International Meeting for Autism Research. London, England.

Sanchez¹, S., **Keehn, B.**, Brenner, L.A., Marshall, S.P., & Müller, R-A. (2008, May). Oculomotor correlates of enhanced visual search in autism spectrum disorder: A study of binocular coordination. Paper presented at the International Meeting for Autism Research. London, England.

Joseph, R.M, **Keehn, B.**, & Connolly, C. (2006, June). Mechanisms underlying superior visual search in autism. Paper presented at International Meeting for Autism Research, Montreal, Canada.

McPartland, J. Dawson, G., Webb, S., & **Keehn, B.** (2005, May). Patterns of visual attention and face recognition in Asperger Syndrome. Paper presented at the International Meeting for Autism Research, Boston, MA.

POSTER PRESENTATIONS [superscript numbers indicate co-author(s) mentored by the candidate:

¹undergraduate student, ²graduate student, ³postdoctoral scientist]

- Kadlaskar², G., Enneking, B., Hamrick, L., Ryan, T., McNally Keehn, R., & **Keehn, B.** (2022, July). Response to social and non-social tactile stimuli in children with and without autism spectrum disorder. Poster to be presented at the International Congress for Infant Studies, Ottawa, Canada.
- Lory², C., Kang, S., King², C., Crosley, H., Mason, R., & **Keehn, B.** (2021, May). Ecobehavioral assessment of instructional responding of college students with ASD in active learning classes. Poster presented at the Association for Behavioral Analysis International Annual Convention, Online only.
- Lory², C., Rispoli, M., Mason, R., **Keehn, B.**, & Mason, B., (2021, May). Examining sub-functions of automatically maintained stereotypy in children with ASD through a modified functional analysis. Poster presented at the Association for Behavioral Analysis International Annual Convention, Online only.
- Kim², Y., Kadlaskar², G., Bergmann¹, S., & **Keehn, B.** (2021, May). Measures of tonic and phasic activity of the locus coeruleus – norepinephrine system in children with autism spectrum disorder. Poster presented at the International Society for Autism Research Meeting, Online only.
- Keehn, B.**, Kadlaskar², G., Bergmann¹, S., & McNally Keehn, R. (2020, May). Understanding attentional strengths and weaknesses in autism spectrum disorder. Poster accepted at the International Society for Autism Research Meeting, Seattle, WA. (Conference cancelled)
- King², C., Lory², C., Kang, S., Bergmann¹, S., Mason, R., & **Keehn, B.** (2020, May). The impact of auditory distractors on visual search and classroom performance in college students with ASD. Poster accepted at the International Society for Autism Research Meeting, Seattle, WA. (Conference canceled)
- Kadlaskar², G., Bergmann¹, S., McNally Keehn, R., Seidl, A., & **Keehn, B.** (2020, May). Tactile processing in children with ASD: A behavioral and electrophysiological study. Poster accepted at the International Society for Autism Research Meeting, Seattle, WA. (Conference canceled)
- McNally Keehn, R., Kadlaskar², G., Paxton, A., **Keehn, B.**, Ciccarelli, M., & Swigonski, N. (2020, May). Validation of a statewide system of early ASD diagnosis: A preliminary report on diagnostic accuracy. Poster accepted at the International Society for Autism Research Meeting, Seattle, WA. (Conference canceled)
- Chukoskie, L., Vong, D., Rengarajan, S., **Keehn, B.**, & Townsend, J. (2020, May). Characterizing the metrics and timing of saccadic eye movements in children and adolescents with ASD. Poster accepted at the International Society for Autism Research Meeting, Seattle, WA. (Conference canceled)
- Pierce¹, S., Kadlaskar², G., & **Keehn, B.** (2019, October). Associations between resting-state EEG alpha-band power and atypical sensory processing and social communication impairments in children with autism spectrum disorder. Poster presented at Neuroscience, Chicago, IL.
- Keehn, B.**, Kadlaskar², G., & McNally Keehn, R. (2019, October). Measures of tonic and phasic activity of the locus coeruleus – norepinephrine system in children with autism spectrum disorder. Poster presented at Neuroscience, Chicago, IL.
- Keehn, B.**, Kadlaskar², G., & McNally Keehn, R. (2019, May). Attentional disengagement and the locus coeruleus – norepinephrine system in children with autism spectrum disorder. Poster presented at the International Society for Autism Research Meeting, Montreal, Canada.
- Kadlaskar², G., **Keehn, B.**, Seidl, A., Tager-Flusberg, H., & Nelson, C.A. (2019, May). Caregiver-infant tactile communication in infants at-risk for autism spectrum disorder. Poster presented at the International Society for Autism Research Meeting, Montreal, Canada.
- Mash, L.E., **Keehn, B.**, Gao, Y., Townsend, J., Liu, T.T., & Müller, R.-A. (2018, November) Atypical links between EEG and fMRI connectivity measures in autism spectrum disorders. Poster presented at Neuroscience, San Diego, CA.

- Kadlaskar², G., **Keehn, B.**, Seidl, A., Tager-Flusberg, H., & Nelson, C.A. (2018, May). Atypical response to caregiver touch in infants at risk for autism spectrum disorder. Poster presented at the International Society for Autism Research Meeting, Rotterdam, Netherlands.
- Keehn, B.**, Wagner, J., Tager-Flusberg, H., & Nelson, C.A. (2017, May). 'Sticky attention' and the development of impaired social orienting and atypical arousal regulation in infants at high risk for ASD. Poster presented at the International Meeting for Autism Research, San Francisco, CA.
- Keehn, B.**, Westerfield, M., Müller, R-A., & Townsend, J. (2017, April). An electrophysiological study of attentional capture in autism spectrum disorder. Poster presented at the Society for Research in Child Development, Austin, TX.
- Jao Keehn, J., Sanchez, S. S., Stewart, C. R., Zhao, W., Grenesko, E. L., **Keehn, B.**, & Müller, R-A. (2016, May) Children with ASD fail to downregulate visual cortex during auditory processing. Poster presented at the International Meeting for Autism Research, Baltimore, MD.
- Wagner, J., **Keehn, B.**, Tager-Flusberg, H., & Nelson, C.A. (2015, May). Attention shifting from emotional faces in high-risk infants and relations with later social-communicative behavior. Poster presented at the International Meeting for Autism Research, Salt Lake City, UT.
- Keehn, B.**, Rasheed, M., Siyal, S., Lee¹, M., Valdez¹, V., Obradović, J., Yousafzai, A., & Nelson, C.A. (2014, October). The effects of early childhood intervention on brain development in a disadvantaged population in rural Pakistan. Poster presented at Grand Challenges Annual Meeting, Seattle, WA.
- Keehn, B.**, Martin¹, J., Mumanachit¹, S., Tager-Flusberg, H., & Nelson, C.A. (2014, May). Behavioral and electrophysiological evidence of impaired social orienting in 'unaffected' siblings of children with autism spectrum disorder. Poster presented at the International Meeting for Autism Research, Atlanta, GA.
- Keehn, B.**, Wagner, J., Tager-Flusberg, H., & Nelson, C.A. (2013, May). The role of attentional disengagement on the emergence of joint attention and arousal regulation: A study of infants at-risk for ASD. Poster presented at the International Meeting for Autism Research, San Sebastian, Spain.
- Wagner, J., **Keehn, B.**, Marshall, S., Fox, S., Tager-Flusberg, H., & Nelson, C.A. (2013, May). Neural responses to familiar and unfamiliar faces in infants at high-risk for ASD: A near-infrared spectroscopy study. Poster presented at the International Meeting for Autism Research, San Sebastian, Spain.
- Keehn, B.**, Martin¹, J., Wagner, J., Tager-Flusberg, H., & Nelson, C.A. (2013, April). Functional connectivity in the first year of life in infants at high risk for autism: A near infrared spectroscopy study. Poster presented at the biennial meeting the Society for Research in Child Development, Seattle, WA.
- Ghane, M., Nair, A., **Keehn, B.**, Keown, C., Shih, P., Townsend., & Müller, R-A. (2012, March). Attention networks in autism spectrum disorders: A functional connectivity MRI study. Poster presented at the Cognitive Neuroscience Society Meeting, Chicago, IL.
- Keehn, B.**, Shih, P., Nair, A., Khan, A., Westerfield, M., Lincoln, A.J., Townsend, J., & Müller, R-A. (2011, May). Attentional capture in ASD: A combined fMRI-EEG study. Poster presented at the International Meeting for Autism Research, San Diego, CA.
- Spradling¹, J., Shukla, D.K., **Keehn, B.**, & Müller, R-A. (2011, May). The relationship between white matter integrity and attentional efficiency in children with autism spectrum disorder. Poster presented at the International Meeting for Autism Research, San Diego, CA.
- Leyden, K.M., Shih, P., **Keehn, B.**, & Müller, R-A. (2010, November). Atypical asymmetries of cortical thickness in autism spectrum disorder. Poster presented at Neuroscience, San Diego, CA.

- Spradling¹, J., **Keehn, B.**, & Müller, R-A. (2010, June). The relationship between cortical thickness and the efficiency of attentional networks in autism. Poster presented at the Annual Meeting of the Organization for Human Brain Mapping, Barcelona, Spain.
- Keehn, B.**, Brenner, L.A., Shih, P., Lincoln, A.J., & Müller, R-A. (2010, May). Functional activation and connectivity of dorsal and ventral attention networks in autism spectrum disorder: An fMRI study of visual search. Poster presented at the International Meeting for Autism Research, Philadelphia, PA.
- Shukla, D.K., **Keehn, B.**, & Müller, R-A. (2010, May). Reduced white matter integrity of the default mode network in children with autism spectrum disorder. Poster presented at the International Meeting for Autism Research, Philadelphia, PA.
- Shih, P., **Keehn, B.**, Oram, J., Leyden, K.M., & Müller, R-A. (2010, May). Reduced differentiation of functional networks subserved by posterior superior temporal sulcus in autism spectrum disorder. Poster presented at the International Meeting for Autism Research, Philadelphia, PA.
- Shukla, D.K., **Keehn, B.**, Lincoln, A.J., & Müller, R-A. (2009, June). Tract-specific patterns of white matter compromise in autism spectrum disorder. Poster presented at the Annual Meeting of the Organization for Human Brain Mapping, San Francisco, CA.
- Shih, P., Shen, M., Öttl, B., **Keehn, B.**, Gaffrey, M.S., & Müller, R-A. (2009, June). Functional and effective connectivity of the mirror neuron system in autism spectrum disorder. Poster presented at the Organization for Human Brain Mapping, San Francisco, CA.
- Sanchez, S., Stewart, C.R., Deyoe, J., Grenesko, E., **Keehn, B.**, & Müller, R-A. (2009, June). Bisensory integration in autism spectrum disorder: A fMRI study. Poster presented at the Organization for Human Brain Mapping, San Francisco, CA.
- Keehn, B.**, Lincoln, A.J., Müller, R-A., & Townsend, J. (2009, May). A study of attentional networks in individuals with autism spectrum disorder. Poster presented at the International Meeting for Autism Research, Chicago, IL.
- Keehn, B.**, Westerfield, M., Lincoln, A.J., & Townsend, J. (2009, May). Attention and cross-modal integration in children with autism spectrum disorder. Poster presented at the International Meeting for Autism Research, Chicago, IL.
- Shukla, D.K., **Keehn, B.**, Lincoln, A.J., & Müller, R-A. (2009, May). Probabilistic DTI tractography shows compromised connectivity between regions of atypically increased activity in children with autism spectrum disorder. Paper presented at the International Meeting for Autism Research, Chicago, IL.
- Jensen¹, B., **Keehn, B.**, Brenner, L.A., Lincoln, A.J., Marshall, S.P., & Müller, R-A. (2009, May). Increased eye-blink rate in autism spectrum disorder may reflect dopaminergic abnormalities. Poster presented at the International Meeting for Autism Research, Chicago, IL.
- Shukla, D.K., **Keehn, B.**, Brenner, L.A., & Müller, R-A. (2008, November). Regional homogeneity of fMRI activation in autism. Poster presented at Neuroscience, Washington D.C.
- DiNino¹, S., **Keehn, B.**, Brenner, L.A., Lincoln, A.J., Marshall, S.P., & Müller, R-A. (2008, May). Enhanced performance on the Embedded Figures Test in autism is not linked to cognitive effort: A pupil dilation study. Poster presented at the International Meeting for Autism Research. London, England.
- Shukla, D.K., **Keehn, B.**, Grenesko, E.L., Shen, M., Lincoln, A.J., & Müller, R-A. (2008, May). White matter integrity in patients with autism spectrum disorders. Poster presented at the International Meeting for Autism Research. London, England.

- Keehn, B.**, Brenner, L.A., Ramos, A.I., Lincoln, A.J., Marshall, S.P., & Müller, R-A. (2007, November). An eye-tracking investigation of embedded figures performance in individuals with autism. Poster presented at Neuroscience, San Diego, CA.
- Horowitz, T.S., Wolfe, J.M., **Keehn, B.**, Connolly, C., & Joseph, R.M. (2007, May). Is superior visual search in autism due to memory in search? Poster presented at the Vision Sciences Society, Sarasota, FL.
- Keehn, B.**, Fine, A., Connolly, C., & Joseph, R.M. (2007, May). Slowed visual search in the absence of top-down information in autism. Poster presented at International Meeting for Autism Research, Seattle, WA.
- Keehn, B.**, Fine, A., Connolly, C., & Joseph, R.M. (2007, April). Bottom-up modulation of attention in autism: A visual search experiment. Poster presented at the biennial meeting of the Society for Research in Child Development, Boston, MA.
- Keehn, B.**, Connolly, C., & Joseph, R.M. (2006, June). Implicit face perception in autism. Poster presented at International Meeting for Autism Research, Montreal, Canada.
- Joseph, R.M., Verbalis, A., McNally, R., **Keehn, B.**, Connolly, C., & Tager-Flusberg, H. (2005, May). Developing a quantitative measure of face emotion recognition in autism. Poster presented at the International Meeting for Autism Research, Boston, MA.
- McNally, R., **Keehn, B.**, Connolly, C., Dominick, K., Joseph, R.M. (2005, May). Affective dysregulation and repetitive behaviors in autism. Poster presented at the International Meeting for Autism Research, Boston, MA.
- McPartland, J. Dawson, G., Webb, S., & **Keehn, B.** (2005, April). Object form and face recognition impairments in Asperger Syndrome. Poster presented at the biennial meeting of the Society for Research in Child Development, Atlanta, GA.

INVITED TALKS

- Keehn, B.** (2021, December). Attentional strengths and weaknesses in autism spectrum disorder: The role of the locus coeruleus – norepinephrine system. Purdue University, Cognitive Psychology Colloquium, West Lafayette, IN.
- Keehn, B.** (2021, September). Associations between sensory processing and electrophysiological and neurochemical measures in children with ASD: An EEG-MRS study. Purdue University, Purdue Autism Research Center Colloquium, West Lafayette, IN.
- Keehn, B.** (2020, February). ‘Abstraction of mind’: Attention in autism spectrum disorder. Purdue University, Human Development and Family Studies Colloquium, West Lafayette, IN.
- Keehn, B.** (2019, October). The locus coeruleus – norepinephrine system and attention in autism. Purdue University, Neuroscience Colloquium, West Lafayette, IN.
- Keehn, B.** (2019, September). Atypical auditory attentional disengagement in autism spectrum disorder. Purdue University, Cognitive Psychology Colloquium, West Lafayette, IN.
- Keehn, B.** (2018, October). The brain bases of atypical attentional reorienting in ASD. Purdue University, Purdue Autism Research Conference, West Lafayette, IN.
- Keehn, B.** (2017, November). An fMRI and EEG study of attentional capture in autism spectrum disorder. Purdue University, Cognitive Psychology Colloquium, West Lafayette, IN.

Keehn, B. (2015, November). Failing to specialize? Evidence of reduced cerebral lateralization from processing strengths and weaknesses in autism spectrum disorder. Purdue University, Clinical Psychology Colloquium, West Lafayette, IN.

Keehn, B. (2014, October). Understanding superior visual search skills in autism spectrum disorder. Purdue University, Cognitive Psychology Colloquium, West Lafayette, IN.

Keehn, B. (2013, October). Functional connectivity in infants at high risk for autism: An fcNIRS study. MIT, Simons Center for the Social Brain, Cambridge, MA.

Keehn, B. (2013, June). Attention and the emergence of autism spectrum disorder. Massachusetts General Hospital, North Shore Medical Center, Salem, MA.

Keehn, B. & Müller, R-A. (2010, August). Eye movements and attention in autism spectrum disorders. Paper presented at the American Psychological Association Annual Convention, San Diego, CA.

PROFESSIONAL SERVICE

Editorial Board Member

Journal of Autism and Developmental Disorders

Ad Hoc Reviewer

American Journal of Psychiatry, 2012 – 2017, 2020; Autism Research, 2013 – 2021; Autism, 2015 – 2018; Brain Imaging and Behavior, 2014; Brain Research, 2018; Child Development, 2009, 2013, 2015; Cognitive Development, 2012 ; Developmental Cognitive Neuroscience, 2015; Developmental Psychology, 2013, 2014; Developmental Science, 2012, 2013, 2015; Frontiers in Developmental Psychology; Frontiers in Human Neuroscience, 2012, 2013, 2020; Journal of Cognition, 2020; Journal of Autism and Developmental Disorders, 2010 – 2021; Journal of Developmental and Physical Disabilities, 2019; Journal of Neurodevelopmental Disorders, 2015-2021; Journal of Neuroscience, 2019; Molecular Autism, 2019-2020; Neuroimage: Clinical, 2015; Neuroscience and Biobehavioral Reviews, 2014, 2017; PLOS One, 2013, 2014, 2015; Scientific Reports, 2020

Grant Reviewer

National:

NIH, Special Emphasis Panel, Child Psychopathology and Developmental Disabilities Study Section, ad hoc reviewer, 2019

NIH, Child Psychopathology and Developmental Disabilities Study Section, ad hoc reviewer, 2015

International:

National Science Centre (Polish granting organization), ad hoc reviewer, 2016

Reviewer for Society Meetings

International Meeting for Autism Research Abstract Reviewer, 2015 - 2022

TEACHING EXPERIENCE

Instructor

Department of Speech, Language, and Hearing Sciences, Purdue University

Department of Psychological Sciences

SLHS 418 / PSY 418 / HDFS 418: Understanding Autism	Sp 15, F 15, 16, 17, 18, 19, 20
SLHS 519 / PSY 591: Developmental Cognitive Neuroscience	F 15; Sp 15, 16, 18, 20
SLHS 519: Language and Social Communication in Autism	Sp 16, F 16, 17, 18, 19, 20
SLHS 519: Evidence-Based Practice I	Sp 21
HONR 399: Autism Spectrum Disorder	Sp 18, 20

Department of Psychology, Harvard University

PSY 980b: Developmental Disabilities Sp 14

Department of Psychology, Northeastern University

Research Supervision

Graduate thesis committee chair: Kim, Y., in progress (Purdue); Kadlaskar, G., 2020 (Purdue); King, C., 2021 (Purdue); Rotondo, M., 2017 (Purdue); Twyman, A., 2017 (Purdue); *Graduate thesis committee member:* Neo, W., in progress (Purdue); Alvar, A., in progress (Purdue); Chong, P., in progress (Purdue); Hill, K., 2020 (Purdue); Lory, C., in progress (Purdue); Kissinger, S., 2019 (Purdue); Ryan Peters, 2019 (Purdue); Griffin-Oliver, C., 2018 (Purdue); Brooks, M., 2018 (Purdue); Ancel, E., 2018 (Purdue); Shamloo, F., 2016 (Purdue); Ghane, M., 2012 (SDSU); *Undergraduate senior theses:* Hamilton, A., in progress (Purdue); Pierce, S., 2020 (Purdue); Beckman, P2020 (Purdue); Clafin, S., 2019 (Purdue); Hornung, T., 2018 (Purdue); Martin, J., 2013 (Harvard); Mumanachit, S., 2013 (Harvard); Lee, M., 2015 (Harvard) *Undergraduate independent research projects:* Valdes. V., 2016 (Harvard)

AWARDS AND HONORS

2019	Purdue University Focus Award (as part of the Purdue Autism Cluster)
2012	International Society for Autism Research Dissertation Award
2010	San Diego State University Travel Award
2009	Inamori Fellowship Award
2008	International Meeting for Autism Research Student Travel Award

PROFESSIONAL MEMBERSHIPS

2007 –	Society for Neuroscience
2007 –	Society for Research on Child Development
2005 –	International Society for Autism Research