

**Jennifer Zuk, PhD, CCC-SLP**

635 Commonwealth Avenue, Boston University, Boston, MA 02215

[jzuk@bu.edu](mailto:jzuk@bu.edu) • 978-505-8817 • <https://sites.bu.edu/zuklab/>**Current Position**

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| <b>Boston University, Boston, MA</b>  | 2020 - Present   |
| <b>Assistant Professor</b> , Department of Speech, Language, and Hearing Sciences |  |
| 2020 -  | <i>Lab Director</i> : Communication and Neurodevelopment Lab                   |
| 2020 -  | <i>Affiliated Faculty</i> : Center for Systems Neuroscience                    |
| 2021 -  | <i>Affiliated Faculty</i> : Undergraduate & Graduate Programs for Neuroscience |
| 2021 -  | <i>Affiliated Faculty</i> : Department of Linguistics                          |

**Education and Training**

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| <b>Boston Children's Hospital/Harvard Medical School, Boston, MA</b>   | 2018 - 2020 |
| Postdoctoral Research Fellow, Laboratories of Cognitive Neuroscience   |             |
| <b>Spaulding Rehabilitation Hospital, Boston, MA</b>   | 2018 - 2020 |
| Clinical Fellow in Speech-Language Pathology   |             |
| <b>Harvard University, Cambridge, MA</b>   | 2018        |
| Ph.D. in Speech and Hearing Bioscience and Technology  |             |
| Dissertation: <i>Sowing seeds of literacy: Factors that promote language and reading acquisition along the developmental trajectory from infancy to school age</i> |             |
| <b>MGH Institute of Health Professions, Charlestown, MA</b>  | 2015        |
| Training for Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP)   |             |
| <b>Harvard Graduate School of Education, Cambridge, MA</b>   | 2010        |
| Ed. M. in Mind, Brain, and Education   |             |
| <b>Case Western Reserve University, Cleveland, OH</b>  | 2009        |
| Dual Degree: B.S. in Music Education & B.A. in Cognitive Science, <i>cum laude</i>   |             |

**Awards and Honors**

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| American Speech-Language-Hearing Association (ASHA) Early Career Contributions in Research Award | 2021 |
| Cognitive Neuroscience Society Postdoctoral Fellowship Award                                     | 2020 |
| Harvard University Distinction in Teaching Award   | 2019 |
| Harvard Brain Initiative Young Scientist Travel Award  | 2019 |
| Harvard University Distinction in Teaching Award   | 2018 |
| Albert J. Ryan Fellow  | 2017 |
| Society for Music Perception and Cognition Student Award   | 2015 |
| Mariani Foundation Scholarship for the Neurosciences & Music V conference                        | 2014 |
| Harvard Graduate School of Arts & Sciences Summer Research Grant                                 | 2014 |
| Harvard Graduate School of Arts & Sciences Conference Grant                                      | 2014 |
| The Doris Young Hartsock Prize for outstanding performance in music education                    | 2009 |
| Case Western Reserve University Creative All-Star Award  | 2009 |
| Cleveland Music School Settlement honored volunteer award in music therapy                       | 2009 |
| Mortar Board National College Senior Honor Society   | 2008 |
| Who's Who in American Universities and Colleges  | 2007 |

(Updated April 2023)

## Professional Recognition

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### Peer-Reviewed Publications:

\*Authors contributed equally, +Indicates trainees

1. Mues, M.\*+, **Zuk, J.\***, Norton, E., Gabrieli, J., Hogan, T.P., Gaab, N. (2023). Clarifying the relationship between early speech-sound production abilities and subsequent reading outcomes. *Journal of Speech, Language, and Hearing Research* [in press].
2. Davison, K.\*+, **Zuk, J.\***, Mullin, L., Ozernov-Palchik, O., Norton, E., Gabrieli, J.D.E., Yu, X., Gaab, N. (2023). Examining the relationship between shared book reading at home, white matter organization in kindergarten, and subsequent language and reading abilities: a longitudinal investigation. *Journal of Cognitive Neuroscience*, 35(2), 259-275.
3. Andrade, P., Mullensiefen, D., Andrade, O., Dunstan, J., **Zuk, J.**, Gaab, N. (2023). Sequence Processing in Music predicts Reading Skills in Young Brazilian Readers: A Longitudinal Study. *Journal of Learning Disabilities*, 1-18.
4. **Zuk, J.**, Vanderauwera, J., Turesky, T., Yu, X., Gaab, N. (2022). Neurobiological predispositions for musicality: White matter in infancy predicts school-age music aptitude. *Developmental Science*, e13365.
5. Yu, X., Ferradal, S., Dunstan, J., Carruthers, C., Sanfilippo, J., **Zuk, J.**, Zöllei, L., Gagoski, B., Ou, Y., Grant, P.E., Gaab, N. (2022). Patterns of Neural Functional Connectivity in Infants at Familial Risk of Developmental Dyslexia. *JAMA Network Open*: 5(10), e2236102.
6. Spencer, C.+ , Davison, K.+ , Boucher, A., **Zuk, J.** (2022). Speech Perception Variability in Childhood Apraxia of Speech: Implications for Diagnosis and Treatment. *Language, Speech, and Hearing Services in Schools*, 1-16.
7. Turesky, T.K., Sanfilippo, J., **Zuk, J.**, Ahtam, B., Gagoski, B., Lee, A., Garrisi, K., Dunstan, J., Carruthers, C., Vanderauwera, J., Yu, X., Gaab, N. (2022). Home language and literacy environment and its relationship to socioeconomic status and white matter structure in infancy. *Brain Structure and Function*, 1-13.
8. **Zuk, J.**, Yu, X., Sanfilippo, J., Figuccio, M., Dunstan, J., Carruthers, C., Turesky, T., Grant, E., Gaab, N. (2021). White matter in infancy is prospectively associated with language outcomes in kindergarten. *Developmental Cognitive Neuroscience*, 50, 100973.
9. **Zuk, J.**, Dunstan, J., Norton, E., Yu, X., Ozernov-Palchik, O., Wang, Y., Hogan, T.P., Gabrieli, J.D.E. & Gaab, N. (2021). Multifactorial pathways facilitate resilience among kindergarteners at risk for dyslexia: A longitudinal behavioral and neuroimaging study. *Developmental Science*, 24(1), e12983.
10. Yu, X., Ferradal, S., Sliva, D., Dunstan, J., Carruthers, C., Sanfilippo, J., **Zuk, J.**, Zöllei, Z., Boyd, E., Gagoski, B., Grant, P.E., Gaab, N. (2021). Functional connectivity in infancy and toddlerhood predicts long-term language and pre-literacy outcomes. *Cerebral Cortex*, 00, 1-12.
11. Yu, X., **Zuk, J.**, Mauer, M., Ozernov-Palchik, O., Raney, T., Beach, S., Norton, E.S., Gabrieli, J.D.E., & Gaab, N. (2020). Putative protective neural mechanisms in prereaders with a family history of dyslexia who subsequently develop typical reading skills. *Human Brain Mapping*, 41(10), 2827-2845.
12. Ozernov-Palchik, O., Norton, E.S., Wang, Y., Beach, S.D., **Zuk, J.**, Wolf, M., Gabrieli, J.D.E., & Gaab, N. (2019). The relationship between socioeconomic status and white matter microstructure in pre-reading children: A longitudinal investigation. *Human Brain Mapping*, 1-14.
13. **Zuk, J.**, Purdue, M., Becker, B., Yu, X., Chang, M., Raschle, N.R., & Gaab, N. (2018). Neural correlates of phonological processing: disrupted in children with reading disorders and enhanced in children with musical training. *Developmental Cognitive Neuroscience*, 34, 82-91.
14. **Zuk, J.**, & Gaab, N. (2018). Evaluating the roles of predisposition and training in shaping the musician's brain: a developmental perspective. *Annals of the New York Academy of Sciences*, 1423(1), 40-50.
15. Yu, X., **Zuk, J.**, & Gaab, N. (2018). What factors facilitate resilience in developmental dyslexia? Examining protective and compensatory mechanisms across the developmental trajectory. *Child Development Perspectives*, 12(4), 240-246.
16. **Zuk, J.**, Iuzzini, J., Cabbage, K., Green, J., Carrell, T., Hogan, T.P. (2018). Poor speech perception is not a core deficit of childhood apraxia of speech: preliminary findings. *Journal of Speech, Language, and Hearing Research*, 61(3), 583-592.
17. Yu, X., Raney, T., Perdue, M.V., **Zuk, J.**, Ozernov-Palchik, O., Becker, B.C., Raschle, N.M. & Gaab, N. (2018). Emergence of the neural network underlying phonological processing from the pre-reading to the emergent reading stage: a longitudinal study. *Human Brain Mapping*, 39(5), 2047-2063.

(Updated April 2023)

**(Peer-Reviewed Publications, Continued)**

18. Cabbage, K., Farquharson, K., Iuzzini-Siegel, J., **Zuk, J.**, & Hogan, T.P. (2018). Exploring the overlap between dyslexia and speech sound production deficits. *Language, Speech, and Hearing Services in Schools, 49*, 774-786.
19. **Zuk, J.**, Bishop-Lieber, P., Ozernov-Palchik, O., Peysakovich, B., Moore, E., Overy, K., Welch, G., Gaab, N. (2017). Revisiting the 'enigma' of musicians with dyslexia: auditory sequencing and speech abilities. *Journal of Experimental Psychology: General, 146*(4), 495-511.
20. Langer, N., Peysakhovich, B., **Zuk, J.**, Drottar, M., Sliva, D., Smith, S., Becker, B., Grant, E., & Gaab, N. (2017). White matter alterations in infants at risk for developmental dyslexia. *Cerebral Cortex, 27*(2), 1027-1036.
21. Clayton, K.K., Swaminathan, J., Yazdanbaksh, A., **Zuk, J.**, Patel, A.D. & Kidd Jr, G. (2016). Executive function, visual attention and the cocktail party problem in musicians and non-musicians. *PLoS ONE, 11*(7), e0157638.
22. **Zuk, J.**, Benjamin, C., Kenyon, A., & Gaab, N. (2014). Behavioral and neural correlates of executive functioning in musicians and nonmusicians. *PLoS ONE, 9*(6), e99868.
23. Raschle, N.M., Smith, S., **Zuk, J.**, Figuccio, M., & Gaab, N. (2014). Investigating the neural correlates of voice versus speech-sound directed information in pre-school children. *PLoS ONE, 9*(12), e115549.
24. **Zuk, J.**, Ozernov-Palchik, O., Kim, H., Lakshminarayanan, K., Gabrieli, J.D.E., Tallal, P., & Gaab, N. (2013). Enhanced syllable discrimination thresholds in musicians. *PLoS ONE, 8*(12), e80546.
25. **Zuk, J.**, Estevan Andrade, P., Valeria C.A. Andrade, O., Gardiner, M., & Gaab, N. (2013). Musical, language, and reading abilities in early Portuguese readers. *Frontiers in Psychology, 4*(228), 1-12.
26. Raschle, N., **Zuk, J.**, Ortiz-Mantilla, S., Sliva, D., Franceschi, A., Grant, E., Benasich, A., & Gaab, N. (2012). Pediatric neuroimaging in early childhood and infancy: challenges and practical guidelines. *Annals of the New York Academy of Sciences, 1252*, 43-50.
27. Raschle, N. M., **Zuk, J.**, & Gaab, N. (2012). Functional characteristics of developmental dyslexia in left-hemispheric posterior brain regions predate reading onset. *Proceedings of the National Academy of Sciences, 109*(6), 2156–2161.
28. Wan, C.Y., Bazen, L., Baars, R., Libenson, A., **Zuk, J.**, Norton, A., & Schlaug, G. (2011). Auditory motor-mapping training as an intervention to facilitate speech output in nonverbal children with autism: a proof of concept study. *PLoS ONE, 6*(9), e25505.
29. Loui, P., Kroog, K., **Zuk, J.**, Winner, E., & Schlaug, G. (2011). Relating pitch awareness to phonemic awareness in children: implications for tone-deafness and dyslexia. *Frontiers in Psychology, 2*(111).

**Consortium Peer-Reviewed Publications:** ^Indicates group authorship membership

30. Korom, M., Camacho, M.C., Filippi, C.A., Licandro, R., Moore, L.A., Dufford, A., Zöllei, L., Graham, A.M., Spann, M., Howell, B., FIT'NG Group^, Shultz, S., Scheinost, D. (2022). Dear Reviewers: Responses to Common Reviewer Critiques about Infant Neuroimaging Studies. *Developmental Cognitive Neuroscience, 53*, 101055.
31. Pollatou, A., Filippi, C. A., Aydin, E., Vaughn, K., Thompson, D., Korom, M., Dufford, A., Howell, B., Zollei, Z., Martino, A., Graham, A., FIT'NG Group^, & Spann, M. (2022). An ode to Fetal, Infant, and Toddler Neuroimaging: Chronicling early clinical to research applications with MRI, and an introduction to an academic society connecting the field. *Developmental Cognitive Neuroscience, 101083*.

**Preprints (under review):**

32. **Zuk, J.**, Loui, P., Guenther, F. Neural Control of Speaking and Singing: The DIVA Model for Singing. [<https://psyarxiv.com/xqtc9>]
33. Davison, K. E., Gomez, S., Boucher, A. R., & **Zuk, J.** Parental self-efficacy in relation to parents' history of language-based learning difficulties and children's shared reading experiences. [<https://osf.io/9ve8k>]  
\*Authors contributed equally
34. King, C.J., Lee, A.M., **Zuk, J.**, Ravi, N., Gaab, N. The COVID-19 Home Environment Literacy Practices (COVID-19-HELP) Questionnaire [<https://osf.io/2bjhd/>].

**Book Chapters:**

Leon Guerrero, S. Ozernov-Palchik, O., **Zuk, J.**, Gonzalez, M., & Gaab, N. (2019). Using tablet technology to screen for reading disabilities in preschool and early kindergarten. The Routledge International Handbook of Learning with Technology in Early Childhood. Taylor & Francis Group.

Raschle, N.M., Lee, L., Stering, P.L., **Zuk, J.** & Gaab, N. (2012). Neural correlates of reading related processes examined with fMRI before reading onset and after language/reading remediation. In A.A. Benasich & R.H. Fitch (Eds.), Developmental dyslexia: Early precursors, neurobehavioral markers and biological substrates (The Extraordinary Brain Series). Baltimore, MD: Brookes Publishing Co.

**Magazine Article:**

**Zuk, J.** & Gaab, N. (2017 May). Is there a link between music and math? *Scientific American*.

**Interviewed Article:**

Fleisher, N. (2009). Where science meets the arts (featuring Kimberly Stegmaier, Jennifer Zuk, and Tom Kirchhausen). *Vector Magazine: Research Discoveries and Innovations from Children's Hospital Boston*.

**Research Funding**

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**Active**

|   |             |
|---|-------------|
| Hartwell Foundation   | 2022 - 2025 |
| Individual Biomedical Research Award  |             |
| <i>Title:</i> Neurobiological basis of speech patterns as a biomarker for Autism Spectrum Disorder in Early Childhood               |             |
| <i>Role:</i> Principal Investigator   |             |
| The Dyslexia Foundation   | 2022 - 2023 |
| The Albert M. Galaburda Research Award  |             |
| <i>Title:</i> Investigating parental oral reading prosody in relation to preschool children's emergent language and literacy skills |             |
| <i>Role:</i> Principal Investigator   |             |
| Boston University Institute for Early Childhood Well-Being  | 2022 - 2023 |
| University-Community Partnership Research Award   |             |
| <i>Title:</i> Motor function and language development in infants at-risk for neurodevelopmental disorders                           |             |
| <i>Role:</i> Co-Principal Investigator  |             |

**Completed**

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| Sackler Foundation, Sackler Scholar in Psychobiology   | 2017 - 2018 |
| <i>Title:</i> Tracking brain and behavioral correlates of music, language, and literacy development from infancy to school age |             |
| <i>Role:</i> Principal Investigator/Trainee  |             |
| National Institutes of Health, National Institute of Deafness and Other Communication Disorders                                | 2016 - 2017 |
| Ruth L. Kirschstein Pre-Doctoral National Research Service Award   |             |
| <i>Title:</i> Examining behavioral and neural links between speech delay and literacy skills                                   |             |
| <i>Role:</i> Principal Investigator  |             |
| Harvard University Mind, Brain and Behavior Interfaculty Initiative  | 2016        |
| Graduate Student Award   |             |
| American Speech-Language-Hearing Foundation  | 2015        |
| New Century Scholars Doctoral Scholarship  |             |
| National Institutes of Health, National Institute of Deafness and Other Communication Disorders                                | 2012 - 2015 |
| Institutional Pre-Doctoral Training Grant  |             |

## Conference Presentations

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### Oral Presentations:

- Zuk, J.**, Mues, M., Norton, E., Becker, B., Hogan, T.P., Gabrieli, J., Gaab, N. Clarifying the relationship between early speech-sound production abilities and subsequent reading outcomes. Oral presentation for the Annual Convention of the American Speech-Language-Hearing Association. Washington, D.C.; November, 2021.
- Zuk, J.**, Sanfilippo, J., Vanderauwera, J., Turesky, T., Lee, A., Dunstan, J., Gagoski, B., Grant, P. E., Gaab, N. Evaluating contributions of home literacy environment and white matter organization to emerging language abilities: a longitudinal investigation from infancy to toddlerhood. Symposium presentation accepted in symposium for the Society for the Scientific Study of Reading Annual Meeting. Newport Beach, CA; July 2020 (Convention canceled due to COVID-19 pandemic).
- Zuk, J.**, Hyatt, C., Gibbon, H., Stack, C., & Kaplan, J. Clinical applications of Neurologic Music Therapy for Speech & Language: Inpatient through Community-based Interventions for Neurologic Injury and Disease. Instructional Course for the American Congress of Rehabilitation Annual Conference. Chicago, IL; November, 2019.
- Zuk, J.**, Figuccio, M., Yu, X., Sanfilippo, J., Dunstan, J., Carruthers, C., Grant, E., & Gaab, N. White matter microstructure in infancy predicts language and pre-literacy abilities in preschool. In symposium for the Society for the Scientific Study of Reading Annual Meeting. Toronto, Canada; July 2019.
- Zuk, J.**, Gallagher, K., & Powers, B. Engaging Research Partners: Music to Our Ears. Joint presentation for the South by Southwest (SXSW) Education Conference. Austin, TX; March, 2019.
- Zuk, J.**, & Gaab, N. Is white matter in infancy related to music aptitude abilities in preschool? Presentation for the Northeast Cognition Music Group annual meeting. Cambridge, MA; February 2019.
- Zuk, J.**, Dunstan, J., Norton, E., Ozernov-Palchik, O., Wang, Y., Hogan, T.P., Gabrieli, J.D.E. & Gaab, N. The potential role of speech sound production in facilitating reading development among children at risk for reading impairment. In symposium for the Society for the Scientific Study of Reading Annual Meeting. Brighton, UK; July 2018.
- Zuk, J.**, Figuccio, M., Yu, X., Sanfilippo, J., Dunstan, J., Carruthers, C., Grant, E., Gaab, N. White matter in infancy predicts language and pre-literacy skills in preschool. Presentation for the New England Research on Dyslexia Society Meeting. Storrs, CT; October 2017.
- Zuk, J.**, Figuccio, M., Sanfilippo, S., Dunstan, J., Carruthers, C., Langer, N., Yu, X., Grant, E., Gaab, N. Is white matter in infancy related to music aptitude abilities in preschool? Presentation for the Music, Language and Cognition Summerschool. Como, Italy; June 2017.
- Zuk, J.**, Figuccio, M., Yu, X., Sanfilippo, J., Dunstan, J., Carruthers, C., Grant, E., Gaab, N. Tracking brain and behavioral correlates of language and literacy development from infancy to school age. Presentation for the Albert J. Ryan Fellows Retreat. North Conway, NH; May 2017.
- Zuk, J.**, Iuzzini-Siegel, J., Cabbage, K., Green, J., & Hogan, T.P. Speech perception in childhood apraxia of speech: language matters. Presentation for the annual American Speech and Hearing Association Annual Convention. Denver, Colorado; November 2015.
- Zuk, J.**, Becker, B., Norton, E., Ozernov-Palchik, O., Beach, S., Mauer, M., Hogan, T.P., Gabriell, J., & Gaab, N. Structural brain alterations in young children at behavioral risk for dyslexia and the impact of speech sound disorders. Presentation for the Seventh International Summerschool on Literacy Research. Egmonde aan Zee, Netherlands; August 2015.
- Zuk, J.**, Bishop-Lieber, P., Ozernov-Palchik, O., Peysakovich, B., Moore, E., Overy, K., Welch, G., Gaab, N. The paradox of musicians with dyslexia: characterizing auditory and speech processing profiles. Presentation accepted for the Meeting of the Society for Music Perception and Cognition. Nashville, TN; August 2015.
- Zuk, J.** The advantages of musical training in language ability and brain function. Invited presentation for Superbrains: Exploring the Neuroscience of Extraordinary Abilities. Las Vegas, NV; May 2015.
- Zuk, J.**, Bishop-Lieber, P., Ozernov-Palchik, O., Peysakovich, B., Moore, E., Overy, K., Welch, G., Gaab, N. Characterizing auditory and speech processing abilities in musicians with dyslexia. Presentation for the Northeast Cognition Music Group annual meeting. Middleton, CT; April 2015.

**Selected Conference Poster Presentations:***+Indicates trainees*

- Davison, K.<sup>+</sup>, Gomez, S.<sup>+</sup>, Boucher, A., **Zuk, J.** Parental self-efficacy in relation to parents' history of language based learning difficulties and children's shared reading exposure. Poster presentation accepted for the 43rd annual Symposium on Research in Child Language Disorders (SRCLD). Madison, Wisconsin; June 2023.
- Liu, T.<sup>+</sup>, Madsen Hardy, I.<sup>+</sup>, Kershenbaum, A.<sup>+</sup>, Gabrieli, J., Tager-Flusberg, T., & **Zuk, J.** Speech timing is linked with language difficulties in autistic and non-autistic children. Poster presentation accepted for the International Society for Autism Research Annual Meeting (INSAR). Stockholm, Sweden; May 2023.
- Madsen Hardy, I.<sup>+</sup>, Kershenbaum, A.<sup>+</sup>, Gabrieli, J., Tager-Flusberg, T., & **Zuk, J.** Building Prosodic Profiles for Pediatric Autism Spectrum Disorder and Developmental Language Disorder. Poster presentation accepted for the Annual Convention of the American Speech-Language-Hearing Association. New Orleans, Louisiana; November 2022.
- Ronderos, J.<sup>+</sup>, **Zuk, J.**, Hernandez, A.E., & Vaughn, K.A. White matter differences in bilingual and monolingual children: an ABCD data study. Poster presented at the Neurobiology of Language meeting. Philadelphia, PA; October 2022.
- Davison, K.<sup>+</sup>, Gomez, S.<sup>+</sup>, Boucher, A., **Zuk, J.** Parental self-efficacy in relation to reading history and children's home literacy environments. Poster presentation at the 29<sup>th</sup> Annual Conference of the Society for the Scientific Study of Reading (SSSR); July 2022.
- Ronderos, J.<sup>+</sup>, **Zuk, J.**, Hernandez, A.E., & Vaughn, K.A. Characterizing white matter differences in bilingual and monolingual children. Poster presented at the Cognitive Neuroscience Society (CNS) meeting 2022 in San Francisco, CA; April 2022.
- Davison, K.<sup>+</sup>, **Zuk, J.**, Mullin, L., Schultz, V., Ozernov-Palchik, O., Norton, E., Gabrieli, J.D.E., Yu, X., Gaab, N. Associations between shared book reading at home and white matter organization in kindergarten in relation to subsequent language and reading abilities. Poster presentation accepted for the Boston University Conference on Language Development (BUCLD). Virtual meeting due to COVID-19 pandemic; November 2021.
- Zuk, J.**, Davison, K.<sup>+</sup>, Vanderauwera, J., Turesky, T., Garrisi, K., Lee, A., Dunstan, J., Grant, P.E., Gaab, N. Examining longitudinal relationships between white matter organization in infancy and subsequent reading achievement at school age. Poster presentation accepted for the Flux Congress. Virtual meeting due to COVID-19 pandemic; September 2021.
- Zuk, J.**, Sanfilippo, J., Garrisi, K., Vanderauwera, J., Turesky, T., Lee, A., Gagoski, B., Grant, P.E., Gaab, N. Examining associations between home literacy environment and white matter organization in infancy in relation to subsequent language abilities in toddlerhood. Poster presentation accepted for the Symposium on Research in Child Language Disorders (SRCLD). Virtual meeting due to COVID-19 pandemic; June 2021.
- Zuk, J.**, Vanderauwera, J., Lee, A., Gonzalez, M., Dunstan, J., Turesky, T., Rubez, D., Yu, X., Grant, P.E., Gaab, N. Variability in white matter organization in infancy is prospectively associated with subsequent musicality in early childhood. Poster presentation accepted to Neurosciences & Music VII. Virtual presentation due to COVID-19 pandemic; June 2021.
- Zuk, J.**, Davison, K., Garrisi, K., Lee, A., Vanderauwera, J., Turesky, T., Dunstan, J., Grant, P.E., Gaab, N. White matter in infancy is prospectively associated with subsequent decoding abilities at school age. Poster presentation accepted for the 28th annual meeting of the Cognitive Neuroscience Society (CNS). Virtual meeting due to COVID-19 pandemic; March 2021.
- Davison, K.<sup>+</sup>, Mullin, L., **Zuk, J.**, Schultz, V., Ozernov-Palchik, O., Norton, E., Gabrieli, J.D.E., Yu, X., Gaab, N. White matter organization is associated with home literacy environment in kindergarten and subsequent reading skills. Poster presentation accepted for the 28th annual CNS meeting of the Cognitive Neuroscience Society (CNS). Virtual meeting due to COVID-19 pandemic; March 2021.
- Ravi, N.<sup>+</sup>, **Zuk, J.**, Garrisi, K., Lee, A., Vanderauwera, J., Turesky, T., Dunstan, J., Davison, K., Grant, P.E., Gaab, N. Examining relationships between the music environment and white matter organization in infancy. Poster presentation accepted for the 28th annual meeting of the Cognitive Neuroscience Society (CNS). Virtual meeting due to COVID-19 pandemic; March 2021.

*(Updated April 2023)*

**(Selected Conference Poster Presentations, Continued):**

- Zuk, J.**, Vanderauwera, J., Lee, A.M. Gonzalez, M., Dunstan, J., Turesky, T.K., Rubez, D., Yu, X., Grant, P.E., & Gaab, N. Evaluating predispositions for music training: white matter in infancy relates to music aptitude abilities in preschool. Poster presented at the 27th annual meeting of the Cognitive Neuroscience Society (CNS). Boston, MA (virtual meeting in May 2020 due to COVID-19 pandemic).
- King, C., Vanderauwera, J., **Zuk, J.**, Turesky, T., Jamouille, N., Raschle, N., Gaab, N. Structural neural correlates of reading development in children with early language delay. Poster presented at the 27th annual meeting of the Cognitive Neuroscience Society (CNS). Boston, MA (virtual meeting in May 2020 due to COVID-19 pandemic).
- Zuk, J.**, Figuccio, M., Yu, X., Sanfilippo, J., Dunstan, J., Carruthers, C., Grant, E., Gaab, N. Relationships between white matter in infancy and subsequent language abilities in preschool. Poster presentation at the Twenty-Fifth Annual Cognitive Neuroscience Society Meeting. Boston, MA; March 2018.
- Zuk, J.**, Figuccio, M., Yu, X., Sanfilippo, J., Dunstan, J., Carruthers, C., Langer, N., Grant, E., Gaab, N. Examining early indicators of dyslexia: tracking brain and behavioral correlates of language and literacy development from infancy to school age. Poster presentation at the Neurodevelopmental Disorders Symposium. Boston, MA; October 2017.
- Zuk, J.**, Figuccio, M., Yu, X., Sanfilippo, J., Dunstan, J., Carruthers, C., Grant, E., Gaab, N. Examining relationships between brain structure in infancy and subsequent language skills in preschool. Poster presentation at the 6<sup>th</sup> International Conference on the Auditory Cortex. Banff, Alberta; Sept. 2017.
- Zuk, J.**, Becker, B., Perdue, M., Yu, X., Wang, Y., Chang, M., Raschle, N., Gaab, N. Neural correlates of phonological processing: disrupted in children with reading impairment and enhanced in children with musical training. Poster presentation at the Neurosciences and Music - VI: Music, Sound and Health. Boston, MA; June 2017.
- Zuk, J.**, Dunstan, J., Norton, E., Ozernov-Palchik, O., Wang, Y., Gabrieli, J.D.E. & Gaab, N. Investigating protective and compensatory mechanisms in kindergarteners at risk for reading impairment who subsequently develop typical reading skills. Poster presentation at the Association for Psychological Sciences Annual Convention. Boston, MA; May 2017.

**Invited Lectures / Professional Development Presentations**

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- Zuk, J.**, Wyton, J., Gallagher, K. (2022). Linking music, language, and literacy: using research to create an inclusive music classroom accessible to diverse learners. Oral presentation for Arts Better the Lives of Everyone (ABLE) Assembly, virtual presentation.
- Zuk, J.** (2021). Introduction to Language Disorders. Guest lecture for course in *Language Development*, Beijing Normal University, virtual presentation.
- Zuk, J.** (2021). Evaluating music-based training as a framework for neuroplasticity: Implications for speech and language. Invited speaker for Dept of Speech-Language Pathology Education Meeting, South Shore Hospital, Weymouth, MA.
- Zuk, J.**, Wong, L., & Loui, P. (2021). Music for well-being amid COVID-19: Perspectives from science, medicine, and community. Invited panelist for virtual symposium, Cambridge Science Festival, MA.
- Zuk, J.** (2021). Musical Training as a Framework for Brain Plasticity: Implications for Music, Language, and Literacy. Guest lecture for course in *Music, Brain Development, and Learning*, New England Conservatory, Boston, MA.
- Zuk, J.** (2021). Mapping your research path: An early career workshop. Invited panelist for virtual workshop, Boston University, Boston, MA.
- Zuk, J.** (2021). Neurodiversity in the Music Classroom. Presentation for VSA Music Education and Special Needs Study Group at Berklee College of Music, Boston, MA.
- Zuk, J.** & Gallagher, K. (2020). Mind the Gap! A blueprint for research-practitioner partnerships. Invited presentation for Haskins Language and Literacy Institute for Educators, New Haven, CT (event postponed due to COVID-19 pandemic).
- Zuk, J.** (2020). Music and Brain Symposium. Invited speaker for Symposium, South Shore Conservatory, Hingham, MA (Symposium postponed due to COVID-19 pandemic).

**(Invited Lectures / Professional Development Presentations, Continued)**

- Zuk, J.** (2020). Sowing seeds of literacy: Links between music and reading along the neurodevelopmental trajectory. Guest lecture for course in *Cognitive Neuroscience*, Tufts University, Somerville, MA.
- Zuk, J.** (2020). Evaluating music-based training as a framework for neuroplasticity: Implications for speech and language. Dept of Speech-Language Pathology Education Meeting, Spaulding Rehabilitation Hospital, Boston, MA.
- Zuk, J.** (2019). Childhood Apraxia of Speech. Guest lecture in graduate course: *Speech Sound Disorders*, MGH Institute of Health Professions, Boston, MA.
- Zuk, J.** (2019). Music & Neuroscience: Implications for Speech and Language Development. Presentation for the Meeting of the Minds at Spaulding Rehabilitation Hospital, Boston, MA.
- Zuk, J.** (2018). Musical Training as a model for brain plasticity: Clinical Applications. Guest lecture in undergraduate course: *Introduction to Music*, Kutztown University, Kutztown, Pennsylvania.
- Zuk, J.** (2018). Neuromusic: linking music, language, and literacy. Presentation for the Southport School Community Lecture Series, Southport, CT.
- Zuk, J.** (2018). Neurodiversity in the Music Classroom. Presentation for VSA Music Education and Special Needs Study Group at Berklee College of Music, Boston, MA.
- Zuk, J.** (2018). Childhood Apraxia of Speech. Guest lecture in graduate course: *Speech Sound Disorders*, MGH Institute of Health Professions, Boston, MA.
- Zuk, J.** (2017). Childhood Apraxia of Speech. Guest lecture in graduate course: *Speech Sound Disorders*, MGH Institute of Health Professions, Boston, MA.
- Zuk, J.** (2017). Music and well-being: a neurodevelopmental perspective. Guest lecture in undergraduate course: *Psychology of Music*, Chapman University, Orange, CA.
- Zuk, J.** (2017). The potential role of musical training in facilitating reading development. Presentation for higher administration of the Southport School, Southport, CT.
- Zuk, J.** (2017). Evaluating programs for system-wide change: basis of evidence-based practice. Guest lecture in graduate course: *Leading Literacy Change*, MGH Institute of Health Professions, Boston, MA.
- Zuk, J.** (2017). Childhood apraxia of speech: considerations for diagnosis and treatment. Guest lecture in undergraduate course: *Speech Sound Disorders*, Emerson College, Boston, MA.
- Zuk, J.** (2017). Examining how music relates to language, literacy, and brain function. Guest lecture in undergraduate course: *Music, Mind, and Brain*, Northeastern University, Boston, MA.
- Zuk, J.** & Lewis, C. (2017). Music of difference: Disability, creativity, and social change. Presentation for ArtSenses Talk Series at Le Laboratoire, Cambridge, MA.
- Zuk, J.** (2017). Childhood apraxia of speech: considerations for diagnosis and treatment. Guest lecture in undergraduate course: *Speech Sound Disorders*, Emerson College, Boston, MA.
- Zuk, J.** (2016). Autism Program Inner Harmony Chorus Refresher/Training. Presentation for music education student leaders of the Boston Conservatory Inner Harmony Chorus, Boston MA.
- Zuk, J.** (2016). The advantages of musical training in language ability and brain function. Presentation for teachers for the Boston Conservatory Lab Charter School Professional Development Day, Roxbury, MA.
- Zuk, J.** (2016). Examining the connections between speech and music in research and practice. Presentation for speech-language pathologists at Clearly Speaking, Londonderry, NH.
- Zuk, J.** (2016). Childhood Apraxia of Speech. Guest lecture in graduate course: *Speech Sound Disorders*, MGH Institute of Health Professions, Boston, MA.
- Zuk, J.** (2015). Invited to speak as an alumni panelist for the Harvard Graduate School of Education Open House for Newly Admitted Students, Cambridge, MA.
- Zuk, J.** (2015). Linking music, language, and literacy. Presentation for teachers for the Wheeler School Professional Development Day, Providence, RI.
- Zuk, J.** (2015). Associations between musical training, executive functioning, and the brain. Presentation for parents at Medfield Public Schools Parent Meeting, Medfield MA.
- Zuk, J.** (2014). Perception of speech sounds in childhood apraxia of speech: language matters. Presentation for the MGH Institute of Health Professions Doctoral Seminar, Boston, MA.
- Zuk, J.** (2014). Recent studies in the Gaab lab: linking music and literacy. Presentation for the Laboratories of Cognitive Neuroscience meeting, Boston, MA.

(Updated April 2023)



**(Invited Lectures / Professional Development Presentations, Continued)**

- Zuk, J.** & Becker, B. (2014). The Reading Brain. Workshop for middle school students at the Harvard Graduate School of Education Brain Awareness Day, Cambridge, MA.
- Zuk, J.** & Wimberly, D. (2010). An Introduction to Music Therapy. Presentation at the Harvard Graduate School of Education, sponsored by Access and Disability Services. Cambridge, MA.
- Zuk, J.** (2010). Music and the Brain. Presentation at Concord-Carlisle Regional High School, Concord, MA.

**Clinical Speech and Language Experience**

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|   |   |
|---|---|
| <b>Speech-Language Pathologist</b><br>Acute Inpatient Rehabilitation, Spaulding Rehabilitation Hospital   | 2018 – 2020<br>Boston, MA   |
| <b>Student Clinician</b><br>Comprehensive Rehab Unit & Nursing and Therapy Center, Spaulding Rehabilitation Hospital<br>Voice and Speech Laboratory, Massachusetts Eye and Ear Infirmary<br>Speech, Language and Literacy Department, Haynes Early Education Center<br>Secondary Program, Perkins School for the Blind<br>The Speech, Language and Literacy Center, MGH Institute of Health Professions | 2014-2015<br>Boston, MA<br>Boston, MA<br>Roxbury, MA<br>Watertown, MA<br>Boston, MA |

**Teaching Experience**

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*At Boston University*

|   |                   |
|---|-------------------|
| <b>Cognition and Neural Bases</b> , SAR SH756 | Fall 2020, 2021   |
| <b>Language Acquisition</b> , SAR SH 524      | Spring 2021, 2022 |

*Other teaching*

|  |                         |
|--|-------------------------|
| <b>The Role of Music in Health and Education</b> , Teaching Fellow                 | Fall 2017, 2018         |
| <b>Music and Disability</b> , Teaching Fellow<br>Harvard University, Cambridge, MA | Spring 2016, 2017, 2019 |

|   |                 |
|---|-----------------|
| <b>Typical and Atypical Neural Development</b> , Teaching Fellow<br>Harvard Graduate School of Education, Cambridge, MA | Fall 2015, 2016 |
|---|-----------------|

|   |             |
|---|-------------|
| <b>Cognition</b> , Teaching Assistant   | Fall 2014   |
| <b>Language, Culture, and Cognition</b> , Teaching Assistant<br>MGH Institute of Health Professions, Boston, MA | Summer 2015 |

**Student Mentoring**

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|  |              |
|--|--------------|
| Talia Liu, Graduate (Doctoral), Boston University  | 2022-Present |
| Alexandra Kapadia, Graduate (Doctoral), Boston University  | 2022-Present |
| Kelsey Davison, Graduate (Doctoral), Boston University   | 2020-Present |
| Natalie Tewksury, Graduate (Master's), Boston University   | 2023-Present |
| Rebecca Gupta, Graduate (Master's), Boston University  | 2021-Present |
| Mercedes Caridad Valladares, Graduate (Master's), Boston University<br>Supervised Master's thesis, entitled: <i>Parental Oral Reading Prosody During Shared Reading Experiences: Associations With Parental Language and Reading Skills And Parent-Child Conversational Interactions</i> | 2022-Present |
| Sylvia Gisler, Graduate (Master's), Boston University<br>Supervised Master's thesis, entitled: <i>Examining the Relation Between Motor Skills and Emerging Language Abilities in Infancy</i>   | 2022-Present |

**(Student Mentoring, Continued)**

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|--|--------------|
| Laura Doherty, Undergraduate and Graduate (Master's), Boston University  | 2020-Present |
| Supervised Undergraduate thesis, entitled: <i>The Relationship between Parental Prosody and Child Language Output During Book Reading</i>  |              |
| Supervised Master's thesis, entitled: <i>The Expressiveness of Mothers' Storybook Reading in Relation to Children's Emerging Language Abilities in Toddlerhood</i>   |              |
| Therese Ancheta, Undergraduate, Boston University  | 2022-Present |
| Marion Bensing, Undergraduate, Boston University   | 2023-Present |
| Marie Murray, Undergraduate, Boston University   | 2022-Present |
| Caroline Goldman, Undergraduate, Boston University   | 2022-Present |
| Arielle Moore, Graduate (Doctoral), Boston University  | 2022         |
| Sebastian Romani, Undergraduate, Boston University   | 2022         |
| Laura Nagy, Graduate (Master's), MGH Institute of Health Professions   | 2022         |
| Ione Madsen Hardy, Undergraduate, Boston University  | 2021-2022    |
| Shana Kilcawley, Undergraduate, Boston University  | 2021         |
| Juliana Ronderos, Graduate (Doctoral), Visiting Student from University of Houston   | 2021-2022    |
| Michelle Hernandez, Graduate (Doctoral), Visiting Student from University of Houston   | 2021-2022    |
| Hannah Stetson, Graduate (Master's), Boston University   | 2020-2022    |
| Supervised Master's thesis, entitled: <i>The Relations Between Parent-Child Conversation During Storybook Reading and Outcomes for Children with Language Delay</i>  |              |
| Sophia Gomez, Graduate (Master's), Boston University   | 2020-2022    |
| Nivedita Ravi, Undergraduate, Harvard University   | 2020-2022    |
| Supervised Undergraduate thesis, entitled: <i>Examining Relationships Between the Music Environment and White Matter Organization in Infancy</i>   |              |
| Nora Jamouille, University of Groningen  | 2019-2020    |
| Chloe Li, Undergraduate, Harvard University  | 2018-2020    |
| Supervised Undergraduate thesis, entitled: <i>Examining links between music, emotion, and reading: An investigation of structural brain differences in school-aged children with and without musical training and dyslexia</i> |              |
| Julia Moss, Undergraduate, Tufts University  | 2019-2020    |
| Marjolein Mues, Graduate (Master's), University of Groningen   | 2018-2019    |
| Supervised Master's thesis, entitled: <i>Clarifying the relationship between early speech-sound production and later literacy outcomes</i>   |              |
| Rachael Dawson, Undergraduate, Harvard University  | 2016-2018    |
| Supervised thesis, entitled: <i>Characterizing the music environment of young children by developing a novel questionnaire for the investigation of corresponding relationships with brain structure</i>                       |              |
| Shani Kempler, Undergraduate, University of Wisconsin-Madison  | Summer 2016  |
| Joseph Sanfilippo, Graduate (Master's), Harvard Graduate School of Education   | 2015-2016    |

**Professional Activities****Training and Certifications**

|      |   |
|------|---|
| 2020 | Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP)   |
| 2020 | Ethical Training for Research on Human Subjects, Boston University  |
| 2015 | Neurologic Music Therapy Training, Berklee College of Music   |
| 2011 | MRI Safety Training, Massachusetts Institute of Technology, Athinoula A. Martinos Imaging Center, McGovern Institute for Brain Research |
| 2009 | Psychoeducational Assessments Administration, Harvard Graduate School of Education  |
| 2009 | Two-year Provisional Educator's License (K-12), Ohio Department of Education  |

**Academic Service***University Service*

2023 Member, Undergraduate Senior Awards Committee  
 2022-2023 Student Academic Advising (4 undergraduate students)  
 2021-2022 Member, Tenure-Track Assistant Professor Search Committee  
 2021-2022 Member, Senior Thesis for Distinction Review Committee

*Professional Service*

2023 Member, American Speech-Language-Hearing Association (ASHA) Convention Committee on Literacy Assessment and Intervention  
 2023 Reviewer, International Conference on Music Perception and Cognition (ICMPC)  
 2021-2023 Member, National Science Foundation Biology of Prosody Advisory Board  
 2020-2022 Member, ASHA Convention Speech-Sound Disorders Committee  
 2022 Reviewer, Society for Music Perception and Cognition 2022 Conference  
 2017-2019 Society for Music Perception and Cognition (SMPC) Student Board Member  
 2012-2018 Admissions Social Committee Chair, Harvard Speech and Hearing Bioscience and Technology (SHBT) Program  
 2016, 2019 Planning Committee member for the Northeast Music Cognition Group annual meeting

**Symposia**

2023 International Association for Music and Medicine, Swedish Perspectives on Music/Health Research (Moderator); Boston MA  
 2017 Society for Music Perception and Cognition ‘Pursuing Graduate School’ Panel (Moderator); San Diego, CA  
 2017 Society for Music Perception and Cognition ‘Early Career’ Panel (Moderator); San Diego, CA  
 2014 ‘Beyond the Concert Hall’ Symposium: Recent Developments in Music and Science (Moderator); Cambridge, MA

**Consulting**

2017- 2020 Assist with development of a K-8 music program that will be accessible to students with dyslexia and ADHD at the Southport School; Southport, CT

**Journal Editorial Board**

2021-Present *Journal of Speech, Language, and Hearing Research*

**Ad-hoc Journal Review**

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|--|--|
| <i>Annals of the New York Academy of Sciences</i>            | <i>Language, Speech, and Hearing Services in Schools</i> |
| <i>Auditory Perception and Cognition</i>                     | <i>Language and Linguistics Compass</i>                  |
| <i>Child Development</i>                                     | <i>Music &amp; Science</i>                               |
| <i>Cognitive Development</i>                                 | <i>Neuroimage</i>  |
| <i>Developmental Psychology</i>                              | <i>Neuroimage: Clinical</i>                              |
| <i>Developmental Cognitive Neuroscience</i>                  | <i>Pediatrics</i>  |
| <i>Developmental Science</i>                                 | <i>PLoS ONE</i>  |
| <i>International Journal of Speech-Language Pathology</i>    | <i>Psychology of Music</i>                               |
| <i>Journal of Cognitive Science</i>                          | <i>Psychomusicology</i>                                  |
| <i>Journal of Communication Disorders</i>                    | <i>Research in Autism Spectrum Disorders</i>             |
| <i>Journal of Experimental Psychology: General</i>           | <i>Scientific Reports</i>                                |
| <i>The Journal of Maternal-Fetal &amp; Neonatal Medicine</i> |  |

**Professional Affiliations**

American Speech and Hearing Association (ASHA)  
 Society for the Neurobiology of Language (SNL)  
 Society for Music Perception and Cognition (SMPC)

Society for the Scientific Study of Reading (SSSR)  
Association for Psychological Science (APS)  
Cognitive Neuroscience Society (CNS)  
American Congress of Rehabilitation Medicine (ACRM)  
International Association for Music and Medicine (IAMM)  
Fetal, Infant, Toddler Neuroimaging Group (FIT'NG)

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