

YUNE SANG LEE, Ph.D.

Research Professor · Seoul National University Brain Imaging Center
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Research Interests: Cognitive neuroscience of music and language; rhythm-based interventions for neurorehabilitation; digital sound therapy for cognitive and emotional health (binaural beats, immersive audio); aging brain and successful communication

EDUCATION & TRAINING

University of Pennsylvania, Philadelphia, PA Department of Neurology & Center for Cognitive Neuroscience <i>Postdoctoral Research Fellow</i>	2011 – 2016
Dartmouth College, Hanover, NH Department of Psychological and Brain Sciences <i>Ph.D. in Cognitive Neuroscience</i>	2005 – 2010
Yonsei University, Seoul, S. Korea Department of System Biology <i>B.S. in Biology</i>	2001

EMPLOYMENT

Seoul National University Research Professor SNU Brain Imaging Center / Computational Clinical Science Lab	Oct. 2025 – Present
The University of Texas at Dallas, Richardson, TX Assistant Professor Department of Speech, Language, and Hearing, School of Behavioral and Brain Sciences Callier Clinical Research Center & Center for BrainHealth	Aug. 2020 – May 2025
The Ohio State University, Columbus, OH Assistant Professor Department of Speech and Hearing Sciences / Chronic Brain Injury, Discovery Themes	Aug. 2016 – July 2020
T.K.B Commercial Music Studio, Seoul, S. Korea <i>Music Director</i>	Mar. 2003 – July 2005
Samsung Capital, Seoul, S. Korea <i>P.R. Officer</i>	Jan. 2002 – Feb. 2003

GRANTS

Extramural Funding — Awarded
Impact of Rigorous Music Training on Brain Development Agency: Dallas Symphony Orchestra Role: PI Total: \$30,000 Duration: 12/01/2023 – 11/30/2024
TheraBeat: A Novel Sound Therapy for Alzheimer's Patients Agency: AWARE (awaredallas.org) Role: PI Total: \$40,000 Duration: 05/01/2022 – 03/31/2024
SLAM Lab Research Support Agency: Neuroscience Innovation Foundation (neurofdn.com)

Role: PI | **Total:** \$50,000 | **Duration:** 05/01/2022 – 04/30/2023

Non-invasive Brain Stimulation Using a Novel 3D Sound Therapy

Agency: Digisonic (digisonic.com)

Role: PI | **Total:** \$200,000 | **Duration:** 01/01/2022 – 12/31/2022

Speech Hero: A Rhythm-Based Speech Therapy App for Individuals with Aphasia

Agency: NIH Small Business Innovation Research (Grant No: 614362)

Role: Consortium PI | **Total:** \$50,000 | **Duration:** 06/01/2020 – 05/31/2021

Investigating the Neural Mechanisms of Language Recovery Through Rhythm Gaming Therapy in Aphasia

Agency: National Institutes of Health — NIDCD (Grant No: 1R21DC018699-01)

Role: PI | **Total:** \$429,000 | **Duration:** 01/01/2020 – 12/31/2022 * *No ESI advantage applied*

TRIPODS + X Project: An MBI TGDA + Neuro Program for Undergraduates

Agency: National Science Foundation (Grant No: NSF-CCF 1839356)

Role: co-PI (PI: Janet Best) | **Total:** \$200,000 | **Duration:** 09/01/2018 – 08/31/2023 ★ *Featured on NSF website front page*

Drum Dance Rehabilitation: A Novel Parkinson's Disease Therapy Program

Agency: The Parkinson's Foundation (Grant No: PF-CGP-19163)

Role: PI | **Total:** \$37,000 | **Duration:** 09/01/2019 – 08/31/2020

Application of fNIRS to Neuroscience Research of Speech, Language, and Music

Agency: Shimadzu Scientific Instrument, Japan

Role: PI | **Total:** \$380,000 | **Duration:** 12/18/2017 – 12/17/2018

Brain-based Evaluation of SoundMind — a Computerized Cognitive Training Program

Agency: Tech Incubator Program for Startup (TIPS) in Korea (Grant No: S2640193)

Role: PI (sub-contract) | **Total:** \$63,000 | **Duration:** 01/01/2019 – 12/31/2019

Music and Language Skills in Korean Children

Agency: Korea Advanced Institute of Science and Technology

Role: co-I (PI: Kyung-Myun Lee) | **Total:** \$20,000 | **Duration:** 09/01/2018 – 08/31/2020

Intramural Funding — Awarded

Investigating the Therapeutic Mechanisms of Binaural Beat Stimulation in Children with Developmental Language Disorder

Agency: School of Behavioral and Brain Sciences, University of Texas at Dallas

Role: PI | **Total:** \$12,500 | **Duration:** 01/01/2022 – 06/30/2022

Mobile EEG System Request

Agency: School of Behavioral and Brain Sciences, University of Texas at Dallas

Role: co-PI (PI: Maguire) | **Total:** \$20,785 | **Duration:** —

Investigating Compensatory Language Processes Prompted by Rhythm Video Game Therapy

Agency: Chronic Brain Injury Discovery Theme, OSU

Role: PI | **Total:** \$50,000 | **Duration:** 01/01/2017 – 12/31/2017

A Novel Parkinson's Disease Therapy Program for the Columbus Community

Agency: Connect & Collaborate Grant Program

Role: PI | **Total:** \$29,000 | **Duration:** 09/01/2019 – 08/31/2020

OSU Pilot Neuroimaging Grant

Agency: College of Arts and Sciences, OSU

Role: PI | **Total:** \$25,000 | **Duration:** 06/01/2018 – 05/31/2019

OSU Social and Behavioral Sciences Small Grant Program

Agency: College of Arts and Sciences, OSU

Role: PI | **Total:** \$4,000 | **Duration:** 09/01/2017 – 08/31/2018

OSU Social and Behavioral Sciences Special Grant

Agency: College of Arts and Sciences, OSU

Role: PI | **Total:** \$4,000 | **Duration:** 09/22/2018 – 09/21/2019

Travel Awards

ASHA Lesson for Success

Agency: American Speech-Language-Hearing Association

Role: Early-career investigator | **Total:** Full travel + registration | **Duration:** 04/27/2020 – 04/29/2020

The Humanities and the Arts Travel Grant Program

Agency: Global Arts and Humanities, Discovery Themes, OSU

Role: co-I (PI: David Huron) | **Total:** \$10,000 | **Duration:** 08/01/2017 – 09/01/2017

Consulting Service

Powerless, Wireless, and Nontoxic Bio-telemetry Sensor and Communication System

Agency: Korea Polytechnic University

Role: Consultant (PI: Jae-Young Chung) | Total: — | Duration: 02/01/2018 – 01/31/2021

PUBLICATIONS

Selected Publications

- Kim, J.H., Kim, H-W., Kovar, J., Lee, Y.S. (2024). Neural consequences of binaural beat stimulation on auditory sentence comprehension: an EEG study. *Cerebral Cortex*. <https://doi.org/10.1093/cercor/bhad459>
- Kim, H-W., Lee, K., Lee, Y.S. (2023). Sensorimotor and working memory systems jointly support development of perceptual rhythm processing. *Developmental Science*, 26(1): e13261.
- Heard, M.J. & Lee, Y.S. (2020). Shared neural resources of rhythm and grammar: An ALE Meta-Analysis. *Neuropsychologia*, 137: 107284.
- Lee, Y.S., Ahn, S.H., Holt, R.F., Schellenberg, G. (2020). Rhythm and syntax processing in school-age children. *Developmental Psychology*, 56(9): 1632–1641.
- Lee, Y.S., Turkeltaub, P.E., Granger, R.H., Raizada, R.D.S. (2012). Categorical speech processing in Broca's area. *Journal of Neuroscience*, 32(11): 3942–3948.
- Lee, Y.S., Janata, P., Frost, C., Hanke, M., Granger, R.H. (2011). Investigation of melodic contour processing in the brain using pattern-based fMRI. *NeuroImage*, 57(1): 293–300.

Peer-Reviewed Articles

- Henry, M.J., Obleser, J., Crusey, M.R., Fuller, E.R., Lee, Y.S., Meyer, M., et al. (2025). How strong is the rhythm of perception? A registered replication of Hickok et al. (2015). *Royal Society Open Science*, 12(6), 220497.
- Thibodeau, L., Freeman, E., Kronenberger, K., Suarez, E., Kim, H-W., Qi, S., Lee, Y.S. (2025). Exploration of auditory processing beyond speech recognition. *Audiology Research*, 15(3), 59.
- Rashidi, F., Parsaei, M., Kiani, I., Sadri, A., Aarabi, S.R., Lee, Y.S., Moghaddam, H.S. (2024). White matter correlates of impulsive behavior in healthy individuals: A diffusion MRI study. *Psychiatry and Clinical Neurosciences Reports*, 3(4), e70018.
- Schneider, J.M., Kim, J., Poudel, S., Lee, Y.S., Maguire, M. (2024). Environmental experiences and cognitive outcomes are predicted by resting-state EEG in school-aged children. *Developmental Cognitive Neuroscience*.
- Kim, H-W., Park, M.S., Lee, Y.S., Kim, C-Y. (2024). Prior conscious experience modulates the impact of audiovisual temporal correspondence on visual processing outside of awareness. *Consciousness and Cognition*.
- Kim, H-W., Kovar, J., Bajwa, J.S., Miran, Y., Ahmad, A., Moreno, M.M., Price, T.J., Lee, Y.S. (2024). Rhythmic motor behavior explains individual differences in grammar skills in adults. *Scientific Reports*. <https://doi.org/10.1038/s41598-024-53382-9>
- Kim, J.H., Kim, H-W., Kovar, J., Lee, Y.S. (2024). Neural consequences of binaural beat stimulation on auditory sentence comprehension: an EEG study. *Cerebral Cortex*. <https://doi.org/10.1093/cercor/bhad459>
- Kim, H-W., Kim, M., McLaren, K., Lee, Y.S. (2024). No influence of regular rhythmic priming on grammaticality judgment and sentence comprehension in English-speaking children. *Journal of Experimental Child Psychology*, 237, 105760.
- Kim, H-W., Happe, J., Lee, Y.S. (2023). Beta and gamma binaural beats enhance auditory sentence comprehension. *Psychological Research*. <https://doi.org/10.1007/s00426-023-01808-w>
- Kim, H-W., Lee, K., Lee, Y.S. (2023). Sensorimotor and working memory systems jointly support development of perceptual rhythm processing. *Developmental Science*, 26(1): e13261.
- Lee, Y.S., Rogers, C., Min, N.E., Wingfield, A., Grossman, M., Peelle, J.E. (2022). Neural compensation supporting successful speech comprehension in normal aging. *Aging Brain*, 2: 100051.
- Yoon, Y-S., Gutierrez, M., Lee, Y.S. (2021). Effects of the configuration of hearing loss on consonant perception. *Journal of American Academy of Audiology*, 32(08): 521–527.
- Heard, M.J., Li, X., Lee, Y.S. (2021). Hybrid auditory fMRI imaging. *Journal of Neuroscience Methods*, 358: 109198.
- Moritz, M., Heard, M., Kim, H-W., Lee, Y.S. (2020). Invariance of edit-distance to tempo in rhythm similarity. *Psychology of Music*.
- Lee, Y.S., Ahn, S.H., Holt, R.F., Schellenberg, G. (2020). Rhythm and syntax processing in school-age children. *Developmental Psychology*, 56(9): 1632–1641.
- Heard, M.J. & Lee, Y.S. (2020). Shared neural resources of rhythm and grammar: An ALE Meta-Analysis. *Neuropsychologia*, 137: 107284.
- Lee, K.M. & Lee, Y.S. (2019). Beat synchronization development of Korean elementary school students. *The Korean Society for Music Theory*, 26(2): 251–270.
- Lee, Y.S., Wingfield, A., Min, N.E., Kotloff, E., Grossman, M., Peelle, J.E. (2018). Differences in hearing acuity among 'normal-hearing' young adults modulate the neural basis for speech comprehension. *eNeuro*, 0263-17.2018. ★ Featured in US News & World Report
- Lee, Y.S. (2018). Impact of subtle hearing loss on the cognition of young adults. *Hearing Journal*, 71(10):30. [invited]

- Belyk, M., Lee, Y.S., Brown, S. (2018). How does human motor cortex regulate vocal pitch in singers? *Royal Society Open Science*, 5(8): 172208.
- Quandt, L.C., Lee, Y.S., Chatterjee, A. (2017). Neural bases of action abstraction. *Biological Psychology*, 129: 314–323.
- Lee, Y.S., Zreik, J., Hamilton, R.H. (2017). Patterns of neural activity predict picture-naming performance of a patient with chronic aphasia. *Neuropsychologia*, 94: 52–60.
- Lee, Y.S., Min, N.E., Wingfield, A., Grossman, M., Peelle, J.E. (2016). Acoustic richness modulates the neural networks supporting auditory sentence comprehension. *Hearing Research*, 333: 108–117.
- Lee, Y.S., Peelle, J.E., Kraemer, D., Lloyd, S., Granger, R.H. (2015). Multivariate sensitivity to voice during auditory categorization. *Journal of Neurophysiology*, 114(3): 1819–1826.
- Lee, Y.S., Janata, P., Frost, C., Martinez, Z., Granger, R.H. (2015). Melody recognition revisited. *Psychonomic Bulletin & Review*, 22(1): 163–9.
- Wiener, M., Lee, Y.S., Lohoff, F., Coslett, H.B. (2014). Individual differences in morphometry and activation of time perception networks are influenced by genotype. *NeuroImage*, 89: 10–22.
- Raizada, R.D.S. & Lee, Y.S. (2013). Smoothness without smoothing: why Naïve Bayes is not naïve for multisubject searchlight studies. *PLOS ONE*, 8(7): e69566.
- Lee, Y.S., Turkeltaub, P.E., Granger, R.H., Raizada, R.D.S. (2012). Categorical speech processing in Broca's area. *Journal of Neuroscience*, 32(11): 3942–3948.
- Lee, Y.S., Janata, P., Frost, C., Hanke, M., Granger, R.H. (2011). Investigation of melodic contour processing in the brain using pattern-based fMRI. *NeuroImage*, 57(1): 293–300.
- Russ, B.E., Lee, Y.S., Cohen, Y.E. (2007). Neural and behavioral correlates of auditory categorization. *Hearing Research*, 229: 204–12.

Book Chapters

- Lee, Y.S., Wilson, M., Howland, K.M. (2024). Ch 6: Music for speech disorders. In *Music Therapy & Music-Based Interventions in Neurology*. Springer Nature.
- Lee, Y.S., Thaut, C., Santoni, C. (2019). Neurological music therapy for speech and language rehabilitation. *Oxford Handbook on Music and the Brain*. Oxford University Press.

In Preparation

- Kim, H-W., Kovar, J., Lee, Y.S. From rhythm to language: beta oscillations during tapping predict sentence comprehension.
- Kim, H-W., Ashah, A., Lim, S-J., Lee, Y.S. Individual differences in rhythm skills relate to developmental language disorder in adults.
- Leung, C., Kim, J.H., Happe, J., Lee, Y.S. The effect of beta binaural beat stimulation on resting-state brain activity in patients with mild cognitive impairment or Alzheimer's disease.
- Mundayoor, S., Kim, J.H., Kovar, J., Lee, Y.S. Increased alpha power of neural activity and emotional arousal driven by immersive 3D sound.

CONFERENCE PRESENTATIONS (2016 – PRESENT)

7th Neuroscience Forum for Alzheimer's Disease (NFAD) <i>New frontiers of digital sound therapy for neurorehabilitation</i>	Feb. 2024
Society for Neuroscience (SFN 2023) <i>The effect of beta binaural beat stimulation on resting-state brain activity in patients with MCI or AD</i> Leung, C., Kim, J.H., Happe, J., Kovar, J., Lee, Y.S. [Poster]	Nov. 2023
Society for Neuroscience (SFN 2023) <i>Role of the pre-supplementary motor area in syntax: a tACS study</i> Leung, C., Heard, M., McLaren, K., Wood, K., Lee, Y.S. [Poster]	Nov. 2023
Cognitive Neuroscience Society (CNS 2023) <i>Neural correlates of enhanced auditory sentence comprehension by binaural beat stimulation</i> Kim, J.H., Kim, H-W., Kovar, J., Lee, Y.S. [Poster]	Mar. 2023
Society for Neurobiology of Language (SNL 2022) <i>The influence of dopamine genotypes on the relationship between rhythm and language processing</i> Kim, H-W., Kovar, J., Bajwa, J., Mian, Y., Ahmad, A., Moreno, M.M., Price, T.J., Lee, Y.S. [Poster]	Oct. 2022
Society for Neurobiology of Language (SNL 2022) <i>The effects of rhythm priming on syntactic language processing in children</i> Kim, H-W., Ginter, K., Lee, Y.S. [Poster]	Oct. 2022
American Congress of Rehabilitation Medicine (ACRM 2022) <i>A novel sound therapy combining music and binaural beats for Alzheimer's disease</i> Lee, Y.S. [Symposium Talk]	Nov. 2022
Society for Music Perception & Cognition (SMPC 2022)	Aug. 2022

<i>Sensorimotor synchronization and auditory working memory jointly predict rhythm perception in children</i> Kim, H-W., Lee, K.M., Lee, Y.S. [Podium Talk]	
Society for Music Perception & Cognition (SMPC 2022) <i>Prior listening to binaural beats facilitates grammar processing during auditory speech tasks</i> Happe, J., Kim, H-W., Lee, Y.S. [Poster]	Aug. 2022
American Congress of Rehabilitation Medicine (ACRM 2019) <i>Home-based rhythm video gaming therapy for aphasia</i> Lee, Y.S. [Symposium Talk]	Nov. 2019
Society for Music Perception and Cognition (SMPC 2019) <i>Influence of rhythm and beat priming on receptive grammar task</i> Yen, S., Bendoly, D., Heard, H., Lee, Y.S. [Poster]	Aug. 2019
Organization of Human Brain Mapping Conference 2019 <i>Exploring a hybrid auditory fMRI protocol combining ISSS and multiband sequences</i> Heard, M., Li, X., Wolfe, T., Lee, Y.S. [Poster]	June 2019
International Conference of Music Perception and Cognition (ICMPC), Montreal <i>Spontaneous rhythm tapping predicts ability of working memory in children</i> Lee, Y.S., Corbeil, K., Ahn, S.H. [Symposium Talk]	July 2018
International Conference of Music Perception and Cognition (ICMPC), Montreal <i>Shared neural resources of rhythm and grammar: An ALE meta-analysis</i> Heard, M.J. & Lee, Y.S. [Symposium Talk]	July 2018
Society for Neurobiology of Language, Baltimore, MD <i>Differences in hearing acuity among young adults modulate the neural basis for speech communication</i> Lee, Y.S., Wingfield, A., Min, N.E., Jester, C., Kotloff, E., Grossman, M., Peele, J.E. [Poster]	Nov. 2017
Society for Neurobiology of Language, Baltimore, MD <i>Rhythm sensitivity assists in overcoming acoustic and syntactic challenges during speech listening</i> Ahn, S., Golthwaite, I., Corbeil, K., Byrer, A., Perry, K., Polakampalli, A., Miller, K., Holt, R.F., Lee, Y.S. [Poster]	Nov. 2017

INVITED TALKS

2026

Music, Mathematics, & Language workshop <i>Shared Circuits: How music and language meet in the brain</i>	June 2026
23rd Avison Biomedical Symposium 2026 <i>Functional Sound as Neuromodulation: Turning Brain Rhythms into Mental Regulation</i>	June 2026
Korean Brain Research Institute (KBRI) <i>From Rhythm to Brain Plasticity: Harnessing Music to Transform the Brain</i>	May 2026
Colloquium, Department of Brain & Cognitive Sciences, KAIST <i>Listening to the brain: towards a neuroscience of music for precision mental health</i>	Apr. 2026

2025

Seminar, College of Electronics and Information Engineering, Kwangwoon University <i>New frontiers of digital medicine: the power of functional sound</i>	Dec. 2025
Seminar, Department of Communication Disorders, Ewha Woman's University <i>Shared circuits: how music and language meet in the brain</i>	Oct. 2025
Colloquium, Department of Music Therapy, Ewha Woman's University <i>Beyond metronome: rhythm and the art of intervention</i>	Sept. 2025
Online Lecture for the Inner Communication and Meditation <i>The Brain, Music and Well-being: BMW story</i>	Aug. 2025
Keynote, Society for Clinical Music Science Research <i>The Brain, Music and Well-being: BMW story</i>	July 2025
1st PKSA (Philadelphia Korean Scholar Association) Korea Workshop <i>The Brain, Music and Well-being</i>	Jan. 2025

2024

Neuroscience Forum on Alzheimer's Disease, S. Korea <i>New frontiers of digital sound therapy for neurorehabilitation</i>	Feb. 2024
Science Concert, S. Korea <i>Positive impact of music on brain health</i>	Feb. 2024
Dallas Symphony Orchestra Guild, Dallas, TX <i>How does musical training impact brain development of school-age children?</i>	Jan. 2024

2023

CHI Memorial Hospital, Chattanooga, TN <i>Non-invasive brain stimulation using binaural beat combined with music</i>	Sept. 2023
Vanderbilt University Medical Center, Nashville, TN <i>The Brain, Music, and Wellbeing</i>	Sept. 2023
Neuroscience Innovation Foundation, St. Louis, MO <i>A novel sound therapy for Alzheimer's disease</i>	Apr. 2023
The Dallas Symphony Orchestra, Dallas, TX <i>The brain, music, and well-being</i>	Feb. 2023

2022

Invited Seminar, Seoul National University Hospital, Bundang <i>The brain, music, and well-being</i>	Nov. 2022
Keynote, AWARE Membership Kick-off Event <i>A novel sound therapy for Alzheimer's disease</i>	Aug. 2022
Invited Seminar, Laboratory for Cognition and Neurostimulation, University of Pennsylvania <i>The brain, music, and well-being</i>	June 2022
Special Lecture, Department of Brain & Cognitive Sciences, Seoul National University <i>The brain, music, and well-being</i>	May 2022
Dartmouth Symposium on Music and Medicine in Cross-Cultural Perspective <i>The brain, music, and well-being</i>	Apr. 2022
Frontiers Talk Series, Center for BrainHealth <i>The brain, music, and well-being</i>	Mar. 2022

2021

Center for Vital Longevity Virtual Science Series <i>The brain, music, and well-being</i>	Apr. 2021
NIH Music & Health Investigator Meeting <i>Investigating the neural mechanisms underlying language recovery through rhythm therapy in aphasia</i>	Mar. 2021

2020

Therapy Insights (Continuing Education Course) <i>Beat the beat: Rhythm-based intervention for communication disorders</i>	Dec. 2020
Colloquium, Music and Health Science Research Collaboratory, University of Toronto <i>New frontiers in neurologic music therapy</i>	Feb. 2020
Colloquium, Cognitive and Behavioral Science, Neuroscience and Music Dept., Washington and Lee University <i>The brain, music, and well-being</i>	Feb. 2020

2019

Otolaryngology Department Seminar, Washington University in St. Louis, MO <i>The neural and genetic mechanisms underlying the connection between music and language</i>	May 2019
Topology, Geography, and Data Seminar, OSU <i>The connection between speech, language, and music</i>	Jan. 2019

2018

Philadelphia Korean Scholar Association (PKSA) Symposium [Keynote] <i>The connection between speech, language, and music</i>	Dec. 2018
Korea Society for Music Perception and Cognition (KSMPC) [Keynote] <i>The connection between speech, language, and music</i>	May 2018
Annual Brain Health & Performance Summit, Columbus, OH <i>Rhythm-based rehabilitation for communication disorders</i>	Mar. 2018
Annual TBI Summit, Columbus, OH <i>The brain, music, and well-being</i>	Mar. 2018
Cognitive Proseminar, Dept. of Psychology, OSU <i>The connection between speech, language, and music</i>	Jan. 2018

2017

KSEA SW Ohio Chapter Seminar, University of Cincinnati <i>The brain, music, and well-being</i>	Dec. 2017
"Aging in Community" International Standardization Symposium, S. Korea <i>Neural compensation supporting successful communication in normal aging</i>	Dec. 2017

KSEA Ohio Chapter Seminar, The Ohio State University
Mind decoding: New frontiers in neuroimaging

Apr. 2017

2016

Eye and Ear Institute, The Ohio State University
Predicting CI outcome using novel neuroimaging techniques

Dec. 2016

OSU Music Cognition Group, The Ohio State University
Rhythm-based rehabilitation for communication disorders

Sep. 2016

The Haskins Laboratories, New Haven, CT
New frontiers in brain-based rehabilitation for communication disorders

May 2016

AD HOC REVIEWER

American Journal of Speech-Language Pathology · Brain & Language · Cerebral Cortex · Clinical Archives of Communication Disorders · Cortex · European Journal of Neuroscience · Experimental Brain Research · Frontiers in Human Neuroscience · Hearing Research · Human Brain Mapping · International Journal of Psychophysiology · Journal of Alzheimer's Disease · Journal of Cognitive Neuroscience · Journal of Cognitive Science · Journal of Neuroscience · Journal of Neurophysiology · Journal of Neurology · Magnetic Resonance Imaging · Music Perception · NeuroImage · NeuroImage Clinical · Neurocase · Psychomusicology · Scientific Reports

COURSES TAUGHT

Neural Basis of Speech, Language, and Music (undergraduate seminar)	Spring 2021 – 2025
Neural Basis of Speech, Language, and Music (graduate seminar)	Fall 2020 – 2025
Communication, Cognition, and the Aging Brain (undergraduate seminar)	Fall 2023 – 2025
Neurology of Speech and Hearing — SHS 5760, OSU	Fall 2017 – Fall 2019
NeuroImaging for Speech, Language, and Music — SHS 8950, OSU	Spring 2017 – 2019
Statistics — SHS 6786, OSU	Spring 2017 – 2019

Trainees

Matthew Heard, doctoral student	2018 – 2023
Hyun-Woong Kim, doctoral student	2019 – 2024
Carole Leung, doctoral student	2022 – 2024
Saranya Mundayoor, doctoral student	2023 – 2024
Jea-Hong Kim, postdoc	2021 – 2023

UNIVERSITY / COMMUNITY / ACADEMIC SERVICE (2016 – PRESENT)

Director of Scientific Affairs, The Society for Clinical Music Science Research	Jan. 2026 – present
Director of Scientific Affairs, Korean Society for Music Perception & Cognition	Sep. 2016 – present
Callier Postdoc Hiring Committee	Jan. 2024
BBS Committee for Cluster Hire in Lifespan Initiative	Sep. 2022 – 2025
Panelist, National Youth Leadership Forum: Explore STEM Program	June 2022
UTD Intellectual Property Committee	Sep. 2021 – 2025
SLHS Ph.D. Program Admission Committee	Nov. 2021 – 2025
ASHA 2021 Convention Topic Committee	Feb. 2021 – Nov. 2021
BBS Website Renovation Committee	Apr. 2021 – Dec. 2022
BBS Delegate for Blackstone Launchpad Stewardship Council	Aug. 2020 – Aug. 2025
Doctoral Dissertation Committee for Christina Dugas	Aug. 2020 – Aug. 2023
Doctoral Dissertation Committee for Kathryn Kriedler	Dec. 2020 – Feb. 2024
External Reviewer, Swiss National Scientific Foundation	May 2021
External Reviewer, Clinical and Translational Science Awards, Auburn University	Feb. 2020
Session Chair, ACRM Mini-Symposium	Nov. 2019
President, KSEA Ohio Chapter	July 2019 – July 2020
External Reviewer, Clinical and Translational Science Awards, University of Washington	Oct. 2018
Faculty Mentor, OSU STEP (Second-year Transformational Education Program)	Sep. 2017 – Apr. 2019
CBI-Sponsored Monthly fNIRS Seminar Series	Sep. 2017 – 2025
Session Chair, ICMPC	July 2018
Reviewer for STEAM Powered Project Grants	July 2017

MEDIA COVERAGE /Interview

쇼츠 릴스에 빼앗긴 문해력 MBC 뉴스데스크	Mar. 2026
음악을 듣고 연주할 때 뇌에서는 어떤 일이 일어나는가? RYM Collabs.	Mar. 2026
Binaural Beats Boost Language Skills — Neuroscience News	Dec. 2023
Neural Nourishment: How Discovering New Music May Garner Some Serious Brain Regions — Vox	Sep. 2022
Music: A Brain Enhancer? — TwoMaverix	Mar. 2022
NSF: Featuring our fMRI Study Investigating Rhythm and Grammar — NSF Website	Sep. 2018
Podcast Interview with Parsing Neuroscience	Aug. 2018
How Subtle Hearing Loss While Young Changes Brain Function — US News	June 2018
A Minor Hearing Loss Now Can Mean Major Dementia Risk Later — Healthline	July 2018
Early Hearing Loss Could Pave the Way for Dementia — Medical News Today	May 2018
Subtle Hearing Loss While Young Alters Brain Function — Neuroscience News	May 2018