Yingying Wang, Ph.D.

Neuroimaging for Language, Literacy and Learning Lab
Department of Special Education and Communication Disorders
College of Education and Human Science
Resident Faculty at the Center for Brain, Biology and Behavior
Affiliated with Nebraska Center for Research on Children, Youth, Families and Schools
University of Nebraska—Lincoln, Lincoln, NE, 68588, U.S.A.

Phone: 402.472.0106
Fax: 402.472.7697
Email: yingying.wang@unl.edu
Web: http://nl3.unl.edu

EDUCATION

2014.01 – 2015.12 **Postdoctoral Research Fellow**
Division of Developmental Medicine
Boston Children's Hospital/Harvard Medical School, Boston, MA, U.S.A.
Advisor: Nadine Gaab, Ph.D.
Research: *Longitudinal Study of childhood brain markers prior to reading onset*

2009.09 – 2013.12 **Ph.D. in Biomedical Engineering**
Department of Biomedical Engineering
University of Cincinnati, OH, U.S.A.
Advisor: Scott K. Holland
Dissertation: *Integration of fMRI and MEG towards modeling language networks in the brain*

2002.09 – 2005.03 **M.S. in Biomedical Engineering**
Department of Biomedical Engineering
Shanghai University, Shanghai, China
Advisor: Weicheng Zhang, Ph.D.
Thesis: *Three-dimensional reconstruction technique of image from digital subtraction angiography (DSA)*

1998.09 – 2002.06 **B.S. in Biomedical Engineering**
Department of Biomedical Engineering
Shanghai University, Shanghai, China
Advisor: Weicheng Zhang, Ph.D.
Thesis: *Collection, conversation and net transport of medical signal*

PROFESSIONAL EXPERIENCE

2022.09 – Present **Associate Professor**
Department of Special Education and Communication Disorders
University of Nebraska-Lincoln (UNL), Lincoln, NE, U.S.A.
Resident Faculty at the Center for Brain, Biology and Behavior

2016.01 – 2022.08 **Assistant Professor**
Department of Special Education and Communication Disorders
University of Nebraska-Lincoln (UNL), Lincoln, NE, U.S.A.
Resident Faculty at the Center for Brain, Biology and Behavior

2006.06 – 2009.09 **Research Assistant III**
Magnetoencephalography Center
Division of Neurology
Cincinnati Children's Hospital Medical Center, Cincinnati, OH, U.S.A.

2005.11 – 2006.06 **Research Assistant**
Magnetoencephalography Laboratory
Division of Diagnostic Imaging
The Hospital for Sick Children, Toronto, ON, Canada

RESEARCH, SCHOLARSHIP, AND CREATIVE ACTIVITY

RESEARCH INTERESTS

[1] Examining neural networks supporting reading development in typical developing children and children who are deaf/hard of hearing using state-of-the-art neuroimaging technologies.

[2] Identifying neural markers that predict speech perception outcomes after cochlear implantation to understand neural plasticity resulting from adapting the new cochlear implant device.

[3] Determining brain networks elicited by somatosensory stimulation and examining individual differences in neural plasticity supporting sensorimotor rehabilitation using cutting-edge neuroimaging technologies.

CURRENT, PENDING, AND COMPLETED PROJECTS

Current Projects

University of Nebraska Collaboration Initiative Grant (2022 – 2023). *Evaluating and Assessing Social Interaction between Parents and their Children with Autism Spectrum Disorder during the Current Pandemic* ($39,120), Role: Co-PI, PI: Philip Lai (Speech-Language Pathology, University of Nebraska—Kearney, UNK).

University of Nebraska Collaboration Initiative Grant (2022 – 2023). *Tactile-augmented walking in stroke survivors: biomechanics and brain control* ($40,000), Role: Co-PI, PI: Mukul Mukherjee (Department of Biomechanics, Center for Research in Human Movement Variability, University of Nebraska at Omaha, UNO).

AHA Institutional Research Enhancement Award (2022 – 2024). *Improving Gait Outcomes in Stroke Survivors through Tactile Stimulation: Understanding the Brain Mechanisms* ($11,730), Role: Co-I, PI: Mukul Mukherjee (Department of Biomechanics, Center for Research in Human Movement Variability, University of Nebraska at Omaha, UNO).

NIH NIDCD Early Career Award R21-DC-018110 (2019 – 2023). *Neural Predictors of Speech Perception Outcomes in Adults with Cochlear Implants* ($460,356), Role: Principal Investigator (PI), Co-Investigators (Co-Is): Michelle Hughes (SECD, UNL), Geoffrey Casazza (University of Nebraska Medical Center, UNMC)

Pending Projects

NIH NINDS R01 (2023 – 2028). *Neuromuscular Feedback Prosthesis for Children* (Subaward: $104,075), Role: Co-I, PI: Jorge Zuniga (Department of Biomechanics, Center for Research in Human Movement Variability, University of Nebraska at Omaha, UNO).

NIH NINDS R01 (2023 – 2028). *Functional Networks of Use-Dependent Brain Plasticity in Children with Upper Limb Reduction Deficiency* (Subaward: $104,075), Role: Co-I, PI: Jorge Zuniga (Department of Biomechanics, Center for Research in Human Movement Variability, University of Nebraska at Omaha, UNO).

NASA Nebraska EPSCoR Statewide Competition (2023 – 2026). *Improving gait outcomes in astronauts following long duration space missions through tactile stimulation: understanding the brain mechanisms* (Subaward: $198,153), Role, Role: Co-I, PI: Mukul Mukherjee (Department of Biomechanics, Center for Research in Human Movement Variability, University of Nebraska at Omaha, UNO).

Completed Projects

Great Plains IDeA-CTR Voucher program (2022). *Neural profiles of aging and hearing loss* ($6,850), Role: PI.

University of Nebraska Collaboration Initiative Grant (2021 – 2022). *Assessing and Evaluating Social Interaction between Parents and their Children with Autism Spectrum Disorder* ($6,548), Role: Co-I, PI: Philip Lai (Speech-Language Pathology, University of Nebraska—Kearney, UNK).

University of Nebraska System Planning Grant (2019 – 2021). *Building the Infrastructure for Early Childhood Executive Function Research in Nebraska* ($20,000), Role: Co-I, PI: Carrie Clark (Educational Psychology, UNL).

Great Plains IDeA-CTR Pilot Study (2019 – 2021). *Neural Predictors of Speech Perception Outcomes in Adults with Cochlear Implants: A Pilot Study* ($50,000), Role: PI.

Great Plains IDeA-CTR Voucher program (2019). *Identifying reading networks in the brain of typical developing children and hearing-impaired children* ($6,000), Role: PI.

Layman Seed Award, UNL (2018 – 2019). *Identifying Neural and Behavioral Characteristics of Reading in Children with Hearing Loss* ($10,000), Role: PI.

Bill & Melinda Gates foundation (2016 – 2017). *Brain imaging as measure of future cognitive outcomes in children* ($1,267,354), Role: Data analyst in charge of analyzing structural and functional brain data from infants in Bangladesh, PI: Charles A. Nelson III (Boston Children's Hospital, BCH), Co-PI: Nadine Gaab (BCH).

NIH NICHD R01-HD-065762 (2011 – 2016). *Longitudinal Study of childhood brain markers prior to reading onset* ($1,898,740), Role: Postdoctoral research fellow in charge of analyzing structural and functional brain data, PI: Nadine Gaab (BCH).

Abbott Fund (2013 – 2016). *Developing Advanced MRI Methods for Detecting the Impact of Nutrients on Infant Brain Development* ($1,811,464), Role: Postdoctoral research fellow in charge of analyzing structural and functional brain data, PI: Elena Grant (BCH), Co-PI: Nadine Gaab (BCH).

NIH NICHD R01 HD038578 (2009 – 2012). *FMRI of normal language development in children* ($534,823), Role: Doctoral student in charge of data collection and analysis, PI: Scott K. Holland (Cincinnati Children's Hospital Medical Center, CCHMC).

PUBLICATIONS

*(in reverse chronological order, *denotes the first author is either undergraduate, graduate student or post-doctoral trainee. PI is usually the last author and corresponding author. This is the common practice in the field of cognitive neuroscience. Journal Impact Factor is abbreviated as JIF. JIF is used as a proxy for the relative importance of a journal within its field. JIF changes annually and JIF listed here is last updated on January 15, 2021. The H-Index is an index that measures both the scientific productivity and the apparent scientific impact of a scientist.)*

Google Scholar Statistics as of January 15, 2023: total citation counts: 1420, H-Index: 23

Profile link: https://scholar.google.com/citations?user=T8Kr7dkAAAAJ&hl=en

ORCID: https://orcid.org/0000-0001-6502-1388

Complete List: https://www.ncbi.nlm.nih.gov/myncbi/1H33mwy386TAA/bibliography/public/

After joining UNL (Between 2016 – Present) – Peer-Reviewed

[49] *Nair S, Szaflarski JP, **Wang Y**, et al. Assessing dynamic brain activity during verbal associative learning using MEG/fMRI co-processing. Neuroimage: Reports, [in press] 2022 100154. DOI: 10.1016/j.ynirp.2022.100154

[48] Pitt KM, Mansouri A, **Wang Y**, Zosky J. Toward P300-brain-computer interface access to contextual scene displays for AAC: An initial exploration of context and asymmetry processing in healthy adults. Neuropsychologia. 2022 Aug 13;173:108289. DOI: 10.1016/j.neuropsychologia.2022.108289, Epub 2022 Jun 9. PMID: 35690117, JIF: 3.1

[47] Dai HD, Doucet GE, **Wang Y**, et al. Longitudinal Assessments of Neurocognitive Performance and Brain Structure Associated With Initiation of Tobacco Use in Children, 2016 to 2021. JAMA Netw Open. 2022;5(8):e2225991. DOI:10.1001/jamanetworkopen.2022.25991, JIF: 13.37

[46] **Wang Y**, Oh H, Barlow SM, Dynamic causal modeling of sensorimotor networks elicited by saltatory pneumotactile velocity in the glabrous hand, J Neuroimaging, 2022; 001-13, DOI: 10.1111/jon.12968, JIF: 2.5

[45] **Wang Y**, Custead R, Oh H, Barlow SM, Dynamic causal modeling of neural responses to an orofacial pneumotactile velocity array, Neuroimage: Reports, 2022; 2(1): 100081, DOI: 10.1016/j.ynirp.2022.100081

[44] **Wang Y**, Holland SK, Bayesian MEG time courses with fMRI priors, Brain Imaging and Behavior, 2021; DOI: 10.1007/s11682-021-00550-4, JIF:

[43] Copeland C, Mukherjee M, **Wang Y**, Fraser K, Zuniga JM. Changes in Sensorimotor Cortical Activation in Children Using Prostheses and Prosthetic Simulators. Brain Sciences. 2021; 11(8):991. DOI: 10.3390/brainsci11080991, JIF: 3.4

[42] **Wang Y**, Sibaii F, Lee K, Gill MJ, Hatch JL, Meta-analytic findings on reading in children with cochlear implants, The Journal of Deaf Studies and Deaf Education, 2021; 26(3):336-350 DOI: 10.1093/deafed/enab010, JIF: 2.2

[41] Zhang Z, Peng P, Eickhoff SB, Lin X, Zhang D, **Wang Y**, Neural substrates of the executive function construct, age-related changes, and task materials in adolescents and adults: ALE meta-analyses of 408 fMRI studies, Developmental Science, 2021; 24(e13111), DOI: 10.1111/desc.13111, JIF: 3.7

[40] Zuniga JM, Pierce J, Copeland C, Cortes-Reyes C, Salazar D, **Wang Y**, Arun KM, Huppert T, Brain lateralization in children with upper-limb reduction deficiency, Journal of NeuroEngineering and Rehabilitation, 2021; 18(24), DOI: 10.1186/s12984-020-00803-1, JIF: 4.4

[39] **Wang Y**, Sibaii F, Custead, R, Oh H, Barlow SM, Functional Connectivity Evoked by Orofacial Tactile Perception of Velocity. Frontiers in Neuroscience, 2020; 14(182), DOI: 10.3389/fnins.2020.00182, JIF: 3.7

[38] *Mathur A, Schultz D, **Wang Y**, Neural bases of phonological and semantic processing in early childhood. Brain Connectivity, 2020; 10(5):212-223, DOI: 10.1089/brain.2019.0728, JIF: 5.3

[37] Zuk J, Dunstan J, Norton E, Yu X, Ozernov-Palchik O, **Wang Y**, Hogan TP, Gabrieli J, Gaab N, Multifactorial pathways facilitate resilience among kindergarteners at risk for dyslexia: A longitudinal behavioral and neuroimaging study. Developmental Science, 2020; 24(e12983), DOI: 10.1111/desc.12983, JIF: 3.7

[36] Turesky TK, Jensen SKG, Yu X, Kumar S, **Wang Y**, Sliva DD, Gagoski B, Sanfilippo J, Zöllei L, Boyd E, Haque R, Hafiz Kakon S, Islam N, Petri WA Jr., Nelson CA, Gaab N, The relationship between biological and psychosocial risk factors and resting-state functional connectivity in 2-month-old Bangladeshi infants: A feasibility and pilot study. Developmental Science, 2019; 22(5):e12841, DOI: 10.1111/desc.12841, JIF: 3.7

[35] Ozernov-Palchik O, Norton ES, **Wang Y**, Beach SD, Zuk J, Wolf M, Gabrieli JDE, Gaab N, The relationship between socioeconomic status and white matter microstructure in pre-reading children: A longitudinal investigation. Human Brain Mapping, 2019; 40(3):741-754, DOI: 10.1002/hbm.24407, JIF: 4.4

[34] *Custead R, Oh H, **Wang Y**, Barlow SM, Brain encoding of saltatory velocity through a pulsed pneumotactile array in the lower face. Brain research, 2017; 1677:58-73, DOI: 10.1016/j.brainres.2017.09.025, JIF: 2.7

[33] **Wang Y**, Mauer M, Raney T, Peysakhovich B, Becker B, Sliva D, Gaab N, Development of tract-specific white matter pathways during early reading development in children at familial risk for dyslexia, Cerebral Cortex, 2017; 27(4):2469-2485, DOI: 10.1093/cercor/bhw095, JIF: 5.9

[32] *Oh H, Custead R, **Wang Y**, Barlow SM, Neural encoding of saltatory pneumotactile velocity in human glabrous hand. PLoS One, 2017; 12(8):e0183532, DOI: 10.1371/journal.pone.0183532, JIF: 2.7

[31] Raschle NM, Becker BL, Smith S, Fehlbaum LV **Wang Y**, Gaab N, Investigating the Influences of Language Delay and/or Familial Risk for Dyslexia on Brain Structure in 5-Year-Olds. Cerebral cortex, 2017; 27(1):764-776. DOI: 10.1093/cercor/bhv267, JIF: 5.9

[30] †Powers S, †**Wang Y**, Sideridis G, Gaab N, Examining the relationship between home literacy environment and neural correlates of phonological processing in beginning readers with and without a familial risk for dyslexia: an fMRI study, Annals of Dyslexia, 2016; 66(3):337-360, DOI: 10.1007/s11881-016-0134-2, (†co-first author, contributed equally), JIF: 1.9

[29] Ozernov-Palchik O, Yu X, **Wang Y**, Gaab N, Lessons to be learned: how a comprehensive neurobiological framework of atypical reading development can inform educational practice,

Current Opinion in Behavioral Sciences, 2016; 10:45-58, DOI: 10.1016/j.cobeha.2016.05.006, JIF: 4.0

Before joining UNL (Before 2016) – Peer-Reviewed

[28] Ji L, **Wang Y**, Zhu D, Liu W, Shi J, White matter differences between multiple system atrophy (parkinsonian type) and Parkinson's disease: a diffusion tensor image study, Neuroscience, 2015; 305:109-116, DOI: 10.1016/j.neuroscience.2015.07.060, JIF: 3.1

[27] Thompson EA, Xiang J, **Wang Y**, Frequency-spatial beamformer for MEG source localization, Biomedical Signal Processing and Control, 2015; 18:263-273, DOI: 10.1016/j.bspc.2015.01.004, JIF: 3.1

[26] Horowitz-Kraus T, DiFrancesco M, Kay B, **Wang Y**, Holland SK, Increased resting-state functional connectivity of visual-and cognitive-control brain networks after training in children with reading difficulties, NeuroImage: Clinical, 2015; 8:619-630, DOI: 10.1016/j.nicl.2015.06.010, JIF: 4.4

[25] **Wang Y**, Holland SK, Comparison of functional network connectivity for passive-listening and active-response narrative comprehension in adolescents, Brain Connectivity, 2014; 4(4):273-285, DOI: 10.1089/brain.2013.0190, JIF: 5.3

[24] Horowitz-Kraus T, **Wang Y**, Plante E, Holland SK, Involvement of the right hemisphere in reading comprehension: a DTI study, Brain Research, 2014; 1582:34-44, DOI: 10.1016/j.brainres.2014.05.034, JIF: 2.7

[23] Szaflarski J, **Wang Y**, Altaye M, Rajagopal A, Byars A, Plante E, Holland SK, Ten Years In The Making-A Longitudinal Study Of Language Development In Children And Adolescents (P3. 337), Neurology, 2014; 82 (10 Supplement): P3.337, JIF: 3.5

[22] Horowitz-Kraus T, Vannest JJ, Kadis D, Cicchino N, **Wang Y**, Holland SK, Reading acceleration training changes brain circuitry in children with reading difficulties, Brain and Behavior, 2014; 4(6):886-902, DOI: 10.1002/brb3.281, JIF: 2.1

[21] Gummadavelli A, **Wang Y**, Guo X, Pardos M, Chu H, Liu Y, Horn P, Zhang F, Xiang J, Spatiotemporal and frequency signatures of word recognition in the developing brain: a magnetoencephalographic study. Brain Research, 2013; 1498: 20-32., DOI: 10.1016/j.brainres.2013.01.001, JIF: 2.7

[20] Korostenskaja M, Harris E, Giovanetti C, Horn P, **Wang Y**, Rose D, Fujiwara H, Xiang J, Magnetoencephalography reveals altered auditory information processing in youth with obsessive-compulsive disorder. Psychiatry Research: Neuroimaging, 2013; 212(2):132-140, DOI: 10.1016/j.pscychresns.2012.11.011, JIF: 2.1

[19] **Wang Y**, Adamson C, Yuan W, Altaye M, Rajagopal A, Byars AW, Holland SK, Sex differences in white matter development during adolescence: a DTI study, Brain Research, 2012; 1478:1-15, DOI: 10.1016/j.brainres.2012.08.038, JIF: 2.7

[18] **Wang Y**, Holland SK, Vannest J, (2012). Concordance of MEG and fMRI patterns in adolescents during verb generation, *Brain Research*, 1447: 79-90, DOI: 10.1016/j.brainres.2012.02.001, JIF: 2.7

[17] Guo X, Xiang J, **Wang Y**, O'Brien H, Kabbouche M, Horn P, Powers SW, Hershey AD, Aberrant neuromagnetic activation in the motor cortex in children with acute migraine: a magnetoencephalography study, PLoS One, 2012; 7(11), DOI: 10.1371/journal.pone.0050095, JIF: 2.7

[16] Guo X, Xiang J, Mun-Bryce S, Bryce M, Huang S, Huo X, **Wang Y**, Rose D, Degrauw T, Gartner K, Song T, Aberrant high-gamma oscillations in the somatosensory cortex of children with cerebral palsy: a meg study, Brain and Development, 2012; 34(7):576-583, DOI: 10.1016/j.braindev.2011.09.012, JIF: 1.5

[15] **Wang Y**, Xiang J, Vannest J, Holroyd T, Narmoneva D, Horn P, Liu Y, Rose D, deGrauw T, Holland SK, Neuromagnetic measures of word processing in bilinguals and monolinguals. Clinical Neurophysiology, 2011; 122(9):1706-1717, DOI: 10.1016/j.clinph.2011.02.008, JIF: 3.2

[14] Zhang R, Wu T, **Wang Y**, Liu H, Zou Y, Liu W, Xiang J, Xiao C, Yang L, Fu Z, Interictal magnetoencephalographic findings related with surgical outcomes in lesional and nonlesional neocortical epilepsy, Seizure, 2011; 20(9):692-700, DOI: 10.1016/j.seizure.2011.06.021, JIF: 2.5

[13] Huo X, **Wang Y**, Kotecha R, Kirtman EG, Fujiwara H, Hemasilpin N, deGrauw T, Rose DF, Xiang J, High gamma oscillations of sensorimotor cortex during unilateral movement in the developing brain: a MEG study, Brain Topography, 2011; 23(4):375-384, DOI: 10.1007/s10548-010-0151-0, JIF: 3.0

[12] Korostenskaja M, Pardos M, Kujala T, Rose DF, Brown D, Horn P, **Wang Y**, Fujiwara H, Xiang J, Kabbouche MA, Powers SW, Hershey AD, Impaired auditory information processing during acute migraine: a magnetoencephalography study, International Journal of Neuroscience, 2011; 121(7):355-365, DOI: 10.3109/00207454.2011.560312, JIF: 1.9

[11] Xiang J, **Wang Y**, Chen Y, Liu Y, Kotecha R, Huo X, Rose DF, Fujiwara H, Hemasilpin N, Lee K, Mangano FT, Jones B, deGrauw T, Noninvasive localization of epileptogenic zones with ictal high-frequency neuromagnetic signals: Case report, Journal of Neurosurgery: Pediatrics, 2010; 5(1):113-122, DOI: 10.3171/2009.8.peds09345, JIF: 2.1

[10] Wang X, Xiang J, **Wang Y**, Pardos M, Meng L, Huo X, Korostenskaja M, Powers SW, Kabbouche MA, Hershey AD, Identification of abnormal neuromagnetic signatures in the motor cortex of adolescent migraine, Headache: The Journal of Head and Face Pain, 2010; 50(6):1005-1016, DOI: 10.1111/j.1526-4610.2010.01674.x, JIF: 4.0

[9] Huo X, Xiang J, **Wang Y**, Kirtman EG, Kotecha R, Fujiwara H, Hemasilpin N, Rose DF, degrauw T, Gamma oscillations in the primary motor cortex studied with MEG, Brain and Development, 2010; 32(8):619-624, DOI: 10.1016/j.braindev.2009.09.021, JIF: 1.5

[8] Chen Y, Xiang J, Kirtman EG, **Wang Y**, Kotecha R, Liu Y, Neuromagnetic biomarkers of visuocortical development in healthy children, Clinical Neurophysiology, 2010; 121(9):1555-1562, DOI: 10.1016/j.clinph.2010.03.029, JIF: 3.2

[7] Korostenskaja M, Pardos M, Fujiwara H, Kujala T, Horn P, Rose D, Byars A, Brown D, Seo JH, **Wang Y**, Vannest J, Xiang J, deGrauw T, Näätänen R, Lee K, Neuromagnetic evidence of impaired cortical auditory processing in pediatric intractable epilepsy, Epilepsy Research, 2010; 92(1):63-73, DOI: 10.1016/j.eplepsyres.2010.08.008, JIF: 2.2

[6] Xiang J, Liu Y, **Wang Y**, Kotecha R, Kirtman EG, Chen Y, Huo X, Fujiwara H, Hemasilpin N, deGrauw T, Rose DF, Neuromagnetic correlates of developmental changes in endogenous high-frequency brain oscillations in children: a wavelet-based beamformer study, Brain Research, 2009; 1274:28-39, DOI: 10.1016/j.brainres.2009.03.068, JIF: 2.7

[5] Xiang J, Liu Y, **Wang Y**, Kirtman EG, Kotecha R, Chen Y, Huo X, Fujiwara H, Hemasilpin N, Lee K, Mangano FT, Leach J, Jones B, deGrauw T, Rose DF, Frequency and spatial characteristics of high-frequency neuromagnetic signals in childhood epilepsy, Epileptic Disorders, 2009; 11(2):113-125, DOI: 10.1684/epd.2009.0253, JIF: 1.3

[4] Kotecha R, Xiang J, **Wang Y**, Huo X, Hemasilpin N, Fujiwara H, Rose DF, deGrauw T, Time, frequency and volumetric differences of high-frequency neuromagnetic oscillation between left and right somatosensory cortices, International Journal of Psychophysiology, 2009, 72(2):102-110, DOI: 10.1016/j.ijpsycho.2008.10.009, JIF: 2.6

[3] Kotecha R, Pardos M, **Wang Y**, Wu T, Horn P, Brown D, Rose DF, deGrauw T, Xiang J, Modeling the developmental patterns of auditory evoked magnetic fields in children, PLoS One, 2009, 4(3):e4811, DOI: 10.1371/journal.pone.0004811, JIF: 2.7

[2] **Wang Y**, Xiang J, Kotecha R, Vannest J, Liu Y, Rose DF, Schapiro M, degrauw T, Spatial and frequency differences of neuromagnetic activities between the perception of open-and closed-class words, Brain Topography, 2008; 21(2):75-85, DOI: 10.1007/s10548-008-0060-7, JIF: 3.0

[1] Liu Y, Xiang J, **Wang Y**, Vannest JJ, Byars AW, Rose DF, Spatial and frequency differences of neuromagnetic activities in processing concrete and abstract words, Brain Topography, 2008; 20(3):123-129, DOI: 10.1007/s10548-007-0038-x, JIF: 3.0

Publications in Chinese

[3] **Wang Y**, Zhang W, Design of 3D Reconstruction DSA System on Personal Computer, Control & Automation, 2005; 27:105-107.

[2] **Wang Y**, Zhang W, The Technology of Digital Subtraction Angiography, China Medical Devices Information, 2004; 20(6):1-4.

[1] **Wang Y**, Bionic technology for implant systems, Laboratory Material & Bio Technique, 2003; 6:41-45.

Book Chapters

[1] **Wang Y**, Book Chapter: Emergent Reading and Brain Development, Early Childhood Education, Donna Farland-Smith, IntechOpen, 2018; DOI: 10.5772/intechopen.82423

Conference Proceedings

[6] **Wang Y**, Xiang J, Rose DF, Holroyd T, Harris E, deGrauw TJ, The Frequency Profile of Somatosensory Evoked Magnetic Fields in the Developing Brain, 17th International Conference on Biomagnetism Advances in Biomagnetism, *IFMBE Proceedings*, 2010; 28(9):254-257, DOI: 10.1007/978-3-642-12197-5_58

[5] Thompson EA, Holland SK, Xiang J, **Wang Y**, MEG source localization using a frequency beamformer, Bioengineering Conference, Proceedings of the 2010 IEEE 36th Annual Northeast, 2010; 1-2, DOI: 10.1109/NEBC.2010.5458282

[4] Guo X, Xiang J, Chen Y, Meng L, Wang X, **Wang Y**, Quantification of the Time and Frequency Signatures of Visual Cortical Activation in the Developing Brain: A Study with MEG and Wave-Cross Spectrogram, 17th International Conference on Biomagnetism Advances in Biomagnetism – Biomag2010, IFMBE Proceedings, 2010; 28(6):183-186, DOI: 10.1007/978-3-642-12197-5_40

[3] Korostenskaja M, Pardos M, Lee KH, Fujiwara H, Kujala T, Xiang J, Vannest J, **Wang Y**, et al., From Auditory Change Detection to Reading and Word Processing: Impairments in Children with Intractable Epilepsy, 17th International Conference on Biomagnetism Advances in Biomagnetism, IFMBE Proceedings, 2010; 28(13):378-380, DOI: 10.1007/978-3-642-12197-5_89

[2] Xiang J, **Wang Y**, Xiao Z, Balioussis C, Zhu H, Holowka S, Sharma R, Hunjan A, Otsubo H, Chuang S, Volumetric localization of epileptic activity using wavelet-based synthetic aperture magnetometry, Proceedings of the 15th International Conference on Biomagnetism, International Congress Series, 2007; 1300:697-700, DOI: 10.1016/j.ics.2007.03.003

[1] Xiang J, Xiao Z, **Wang Y**, Feng Y, Qiao H, Sun B, Holowka S, Hunjan A, Sharma R, Chuang S, Rose DF, Detection of subtle structural abnormality in tuberous sclerosis using MEG guided post-image processing, Proceedings of the 15th International Conference on Biomagnetism, International Congress Series, 2007; 1300:693-696, DOI: 10.1016/j.ics.2007.03.002

SCHOLARLY PRESENTATIONS

Invited Oral Research Presentations

[13] *The reading brain: insights from deafness*, University of Delaware, Center for Biomedical and Brain Imaging (CBBI), Seminar Series, Virtual Online, Newark, DE., March 2021. (national)

[12] *Neural basis of reading skills in children who are deaf and hard of hearing*, University of Connecticut, Department of Developmental Psychology, Developmental Brown Bag Talk Series, Virtual Online, Storrs, CT., April 2021. (national)

[11] *Brain encoding of saltatory velocity through a pulsed pneumotactile array in the lower face*, University of Cincinnati, Department of Biomedical Engineering, Graduate Seminar, Cincinnati, OH., November 2019. (national)

[10] *Functional Connectivity Evoked by Orofacial Tactile Perception of Velocity*, University of Nebraska-Omaha, Department of Biomechanics and Center for Research in Human Movement Variability, Omaha, NE., October 2019. (regional)

[9] *Bridge Education And Neuroscience*, Walker School of Education, Midland University, Fremont, NE., October 2019. (regional)

[8] *Functional Connectivity Evoked by Orofacial Tactile Perception of Velocity*, 5th Annual SfN Satellite Event, Chicago, IL., October 2019. (international)

[7] *Understanding the Reading Brain*, Nebraska Academy for Early Childhood Research Networking: Connecting with Community Research Partners, Lincoln, NE., May 2019. (regional)

[6] *Understand the Reading Brain: An Insight from Deafness*, Boys Town National Research Hospital, SMART lunch, Omaha, NE., April 2019. (regional)

[5] *White Matter Development in at-risk children and typical controls*, University of Nebraska Medical Center, Department of pharmaceutical sciences-seminar, Omaha, NE, October 2016. (regional)

[4] *White Matter Development in at-risk children and typical controls*, Children, Youth, Families and Schools (CYFS) Summit, Research in Early Childhood, Lincoln Marriott Cornhusker Hotel, Lincoln, NE, April 2016. (regional)

[3] *White matter development in children at risk for dyslexia*, Biomedical Engineering seminar series, University of Nebraska-Lincoln, Lincoln, NE, March 2016. (regional)

[2] *FMRI and MEG data fusion*, Research Department of Biomedical Engineering in Institute of Electrical Engineering, Chinese Academy of Sciences (IEECAS), Beijing, China, June 2012. (international)

[1] *Integration of fMRI and MEG in language network*, First MRI-71 conference, Cincinnati Children's Hospital, OH., July 2011. (national)

Other Oral Research Presentations

[8] *Brain Activation of Cochlear Implant Candidates (BACIC)*, Center for Brain, Biology and Behavior (CB3), Cabin Seminar talk, Lincoln, NE, April 2022. (regional)

[7] *Functional Near-infrared Spectroscopy (fNIRS)*, University of Nebraska-Lincoln, Department of Psychology, Guest Lecture, March 2022. (regional)

[6] *Neural Bases of Reading and Clinical Implications*, 2020 Nebraska Speech-Language-Hearing Association Fall Convention, Virtual Online, Lincoln, NE., September 2020. (regional)

[5] *Research Updates*, Nebraska Speech Language Hearing Association Fall Convention, Omaha, NE., October 2019. (regional)

[4] *Brain connectivity changes in children with and without a familial risk for dyslexia during reading development*, Center for Brain, Biology and Behavior (CB3), MRI Users' meeting, Lincoln, NE, December 2016. (regional)

[3] *Reading Development in Children*, Department of Psychology, Cabin talk, Lincoln, NE, September 2016. (regional)

[2] *White Matter Development in Children*, CB3, MRI Users' meeting, Lincoln, NE, April 2016. (regional)

[1] *Brain research on reading and language development*, Department of Special Education and Communication Disorders, Brown bag talk, Lincoln, NE, February 2016. (regional)

Conference Oral or Poster Presentations

*(in reverse chronological order, *denotes the presenter is either undergraduate, graduate student or post-doctoral trainee.)*

[53] **Wang Y**, Wu Y, Secilmis L, Bollinger J, Hemodynamics of Speech-evoked Neural Networks in Adults: an fNIRS Study, Biennial meeting of the Society for functional Near Infrared Spectroscopy (SfNIRS), Boston, October 2022*, Poster presentation*.

[52] **Wang Y**, Custead R, Oh H, Barlow SM, Dynamic Causal Modeling of Neural Responses to an Orofacial Pneumotactile Velocity Array, Organization of Human Brain Mapping (OHBM), Glasgow, Scotland, June 2022, *Poster presentation*.

[51] **Wang Y**, Wu Y, Hemodynamics of Speech-evoked Networks in Adults: an fNIRS Study, Cognitive Neuroscience Society (CNS) Conference, March 2022, *Poster presentation*.

[50] Pitt K, Mansouri A, Zosky J, Smith H, **Wang Y**, Manly M, Toward P300-Based Brain-Computer Interface Access to Visual Scene Displays, 2021 ASHA Convention Hybrid Conference, November 2021, *Oral presentation*.

[49] **Wang Y**, Mathur A, Park S, Ather M, Investigating the Effects of Sport-Related Concussion on Structural Brain Connectivity: Evidence for Altered Local and Global Network Efficiency During Acute Symptom Management, Cognitive Neuroscience Society (CNS) 2021 Virtual Conference, March 2021, *Poster presentation*.

[48] *****Anderson ED, Schultz D, **Wang Y**, Carlson E, Albers L, Tuttle J, Mayer M, Neta M, Savage C, Barbey AK, Society of Neuroscience (SFN) Global Connectome: A 2021 Virtual Conference, January 2021, *Poster presentation*.

[47] *Nair S, **Wang Y**, Szaflarski J, A pipeline for MEG/fMRI co-processing to examine dynamic brain activity during associative learning, Organization of Human Brain Mapping (OHBM) 2020 Virtual Conference, June 2020, *Poster presentation*.

[46] **Wang Y**, Mathur A, White matter pathways supporting basic reading skills in young children, Cognitive Neuroscience Society (CNS) 2020 Virtual Conference, May 2020, *Poster presentation*.

[45] **Wang Y**, Sibaii F, Custead R, Oh H, & Barlow SM, Functional connectivity evoked by orofacial tactile perception of velocity, 2020 Motor Speech Conference (Santa Barbara, CA), February 2020, *Poster presentation*.

[44] *****Mathur A, Schultz D, **Wang Y**, Specialization of phonological and semantic reading routes in early childhood, Great Plains IDeA-CTR Annual Meeting, Omaha, NE, October 2019, *Poster presentation*.

[43] **Wang Y**, Sibaii F, Custead R, Oh H, & Barlow SM, Functional connectivity evoked by saltatory pneumotactile stimuli on the glabrous hand, Organization of Human Brain Mapping (OHBM) 2019 conference, Rome, Italy, June 2019, *Poster presentation*.

[42] *Grybas EA, Nguyen L, Trat Thai TTK, Mathur A, **Wang Y**, White Matter Characteristics in Pre-Readers, University of Nebraska-Lincoln, Spring Research Fair, Lincoln, NE, April 2019, *Poster presentation*.

[41] *Mathur A, Sibaii F, **Wang Y**, Neural specialization of reading in young children, Cognitive Neuroscience Society (CNS), San Francisco, March 2019, *Poster presentation*.

[40] *Munn L, Watkins E, Walters N, Sibaii F, **Wang Y**, Brain connectivity related to executive function in children with and without a familial risk for dyslexia, University of Nebraska-Lincoln, Spring Research Fair, Lincoln, NE, April 2019, *Poster presentation*.

[39] Turesky T, Jensen S, Yu X, Kumar S, **Wang Y**, Sliva D, Borjan G, Sanfilippo J, Haque R, Kakon SH, Islam N, Petri WJ, Nelson C, & Gaab N, The 6th Annual Flux Congress, "The relationship between poverty and resting-state functional connectivity in 2-month-old Bangladeshi infants," Podium Conference Specialists, Berlin, Germany, Bangladesh. August 2018, *Oral presentation*.

[38] Ozernov-Palchik O, Norton E, **Wang Y**, Beach S, Zuk, J, Wolf M, Gabrieli J, & Gaab N, The relationships among SES, white matter, and reading development: a longitudinal investigation from kindergarten to 2nd grade, Twenty-Fifth Annual Meeting Society for the Scientific Study of Reading (SSSR), July 2017, *Oral presentation*.

[37] Ozernov-Palchik, O, Norton E, **Wang Y**, Beach S, Zuk J, Wolf M, Gabriel, J, Patel A, Gaab N, White matter integrity in kindergarten predicts rhythm performance in 2nd grade, The Neurosciences and Music – VI, Music, Sound and Health, Boston, June 2017, *Poster presentation*.

[36] 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, The Neurosciences and Music – VI, Music, Sound and Health, Boston, June 2017, *Poster presentation*.

[35] Zuk J, Dunstan J, Norton E, Ozernov-Palchik O, **Wang Y**, Gabrieli J, Gaab N, Investigating protective and compensatory mechanisms in kindergarteners at risk for reading impairment who

subsequently develop typical reading skills, 29th APS Annual Convention, Boston, MA, May 2017, *Poster presentation*.

[34] **Wang Y**, Neural substrates of the executive attention network in children at-risk for dyslexia and typical controls, The dyslexia foundation, extraordinary brain symposium XV, The Buccaneer Hotel, St. Croix, US Virgin Islands. June 2016, *Oral presentation*.

[33] **Wang Y.**, Mauer M, Raney T, Peysakhovich B, Becker B, Sliva D, Gaab N, Development of tract-specific white matter pathways during early reading development in children at familial risk for dyslexia, Cognitive Neuroscience Society (CNS) Annual Meeting, New York, NY. April 2016, *Poster presentation*.

[32] **Wang Y**, Tract-specific white matter pathways during early reading development, Laboratories of Cognitive Neuroscience monthly meeting, Boston Children's Hospital, Boston, MA. November 2015, *Oral presentation*.

[31] **Wang Y**, Mauer M, Raney T, Peysakhovich B, Becker B, Sliva D, Gaab N, White matter development in children at risk for dyslexia, The Neurodevelopmental Disorders Symposium, Boston, MA., October 2015, *Poster presentation*.

[30] **Wang Y**, Raschle NM, Sliva D, Mauer M, Powers S, Becker B, Peysakhovich B, Gaab N, Atypical development of executive function in pre-readers at familial risk for dyslexia: a longitudinal fMRI study, 2nd annual meeting for New England Research on Dyslexia (NERDY) Society, October 2014, *Poster presentation*.

[29] Sliva D, Peysakhovich B, **Wang Y**, Grant PE, Gaab N, Dehaes M, Resting state auditory network strength is related to age, brain structure and familial risk for developmental dyslexia in infants, 4th Biennial Conference on Resting State Brain Connectivity, Cambridge, MA. September 2014, *Poster presentation*.

[28] **Wang Y**, Atypical development of executive function in pre-readers at familial risk for dyslexia: a longitudinal fMRI study, Laboratories of Cognitive Neuroscience monthly meeting, Boston Children's Hospital, Boston, MA. July 2014, *Oral presentation*.

[27] Zuk J, **Wang Y**, Raschle NM, Becker B, Chang M, Gaab N, Examining the neural correlates of rapid auditory processing and phonological processing in children with musical training, The 5th Annual Meeting of The Neurosciences and Music, Dijon, France, May 2014, *Poster presentation*.

[26] **Wang Y**, Raschle NM, Sliva D, Dauvermann MR, Becker B, Ozernov-Palchik O, Peysakhovich B, Smith SA, Figuccio M, Zuk J, Gaab N, The development of phonological processing from the pre-reading to the beginning-reading stage in children with and without a familial risk for developmental dyslexia, The 21st Annual Cognitive Neuroscience Society (CNS) Annual Meeting, Boston, April 2014, *Poster presentation*.

[25] **Wang Y**, Integration of fMRI and MEG towards modeling language networks in the brain, Fetal-Neonatal Neuroimaging & Developmental Science Center weekly meeting, Boston Children's Hospital, Boston, MA. March 2014, *Oral presentation*.

[24] **Wang Y**, Holland SK, Vannest J, Concordance of MEG and fMRI Patterns in Adolescents during Verb Generation, Organization for Human Brain Mapping (OHBM) 2012 Annual Meeting, Beijing, China, June 2012, *Poster presentation*.

[23] Holland SK, **Wang Y**, et al., Sex difference of white matter anisotropic diffusion in developing adolescent brain, Organization for Human Brain Mapping (OHBM) 2012 Annual Meeting, Beijing, China, June 2012, *Poster presentation*.

[22] **Wang Y**, Xiang J, Rose DF, Holroyd T, Harris E, deGrauw T, The frequency profile of somatosensory evoked magnetic fields in the developing brain, 17th International Conference on Biomagnetism (BIOMAG), Dubrovnik, Croatia, March 2010, *Poster presentation*.

[21] **Wang Y**, Vannest J, Holland SK, deGrauw T, Rose DF, Xiang J, Linking even-related cortical oscillations with BOLD signal: a fMRI/MEG study, Organization for Human Brain Mapping (OHBM) 2010 Annual Meeting, Barcelona, Spain, June 2010, *Poster presentation*.

[20] Korostenskaja M, Pardos M, Fujiwara H, Rose DF, Kujala T, Xiang J, **Wang Y**, Hemasilphin N, deGrauw T, Lee K, Change Detection Mechanism Differs Between Frontal and Temporal

Intractable Epilepsy Patients, Organization for Human Brain Mapping (OHBM) 2010 Annual Meeting, Barcelona, Spain, June 2010, *Poster presentation*.

[19] **Wang Y**, Preliminary MEG/fMRI Data I/II, MEG Users' Meeting, Cincinnati Children's Hospital, OH. August and September 2009, *Oral presentation*.

[18] **Wang Y**, Focus on the brain - Human Brain Mapping 2009 conference summary, MEG Users' Meeting, Cincinnati Children's Hospital, OH. July 2009, *Oral presentation*.

[17] **Wang Y**, Xiang J, Vannest J, Huo X, Chen Y, Wu T, Liu Y, Holland SK, deGrauw T, Rose DF, Neuromagnetic measures of word processing in Bilinguals and Monolinguals, Organization for Human Brain Mapping (OHBM) 2009 Annual Meeting, San Francisco, CA., June 2009, *Poster presentation*.

[16] Xiang J, **Wang Y**, Chen Y, Liu Y, Huo X, Fujiwara H, Hemasilpin N, Lee K, Mangano F, Leach J, Blaise J, deGrauw T, Rose DF, Volumetrically Mapping Ictal Activity in Childhood Epilepsy with Neuromagnetic Signals in Multiple-frequency Bands, Organization for Human Brain Mapping (OHBM) 2009 Annual Meeting, San Francisco, CA., June 2009, *Poster presentation*.

[15] Chen Y, **Wang Y**, Liu Y, Fujiwara H, Hemasilpin N, deGrauw T, Lee, K, Rose DF, Xiang J, Spatial and Frequency Characteristics of Epileptic High-Frequency Neuromagnetic Activation in Patients with Tuberous Sclerosis Complex, Organization for Human Brain Mapping (OHBM) 2009 Annual Meeting, San Francisco, CA., June 2009, *Poster presentation*.

[14] Huo X, Xiang J, **Wang Y**, Kirtman EG, Liu Y, Fujiwara H, Hemasilpin N, Rose DF, deGrauw T, Movement-Related Ipsilateral Desynchronization and Contralateral Synchronization of Gamma Oscillations Studied with MEG, Organization for Human Brain Mapping (OHBM) 2009 Annual Meeting, San Francisco, CA., June 2009, *Poster presentation*.

[13] Xiang J, Kotecha R, **Wang Y**, Pardos M, Horn P, Zhang F, Rose DF, deGrauw T, Modeling Maturational Pattern of Auditory Function in Healthy Children with Magnetoencephalography, Organization for Human Brain Mapping (OHBM) 2009 Annual Meeting, San Francisco, CA., June 2009, *Poster presentation*.

[12] **Wang Y**, Xiang J, Kotecha R, Harris E, Huo X, Liu Y, Kirtman EG, Hemasilpin N, Fujiwara H, Rose DF, Developmental changes of cortical oscillatory activity patterns following finger stimulation in healthy children, 16th International Conference on Biomagnetism (BIOMAG), Sapporo, Japan, August 2008, *Poster presentation*.

[11] Kirtman EG, **Wang Y**, Horn P, Rose DF, deGrauw T, Xiang J, Developmental Patterns of Visual Evoked Magnetic Fields in Healthy Children, 16th International Conference on Biomagnetism (BIOMAG), Sapporo, Japan, August 2008, *Poster presentation*.

[10] Xiang J, Liu Y, **Wang Y**, Kotecha R, Kirtman EG, Huo X, Fujiwara H, Hemasilpin N, deGrauw T, Rose DF, Functional Connectivity of Default Mode Network Components in the Developing Brain: A Magnetoencephalographic Study, 16th International Conference on Biomagnetism (BIOMAG), Sapporo, Japan, August 2008, *Poster presentation*.

[9] Kotecha R, Pardos M, **Wang Y**, Horn P, Brown D, Rose DF, deGrauw T, Xiang J, Developmental Patterns of Auditory Evoked Magnetic Fields in Healthy Children, 16th International Conference on Biomagnetism (BIOMAG), Sapporo, Japan, August 2008, *Poster presentation*.

[8] Liu Y, Xiang J, **Wang Y**, Kirtman EG, Huo X, Fujiwara H, Hemasilpin N, Rose DF, Spatial, Frequency and Volumetric Characteristics of Childhood Epilepsy, 16th International Conference on Biomagnetism (BIOMAG), Sapporo, Japan, August 2008, *Poster presentation*.

[7] Xiang J, **Wang Y**, Huo X, Kirtman EG, Liu Y, Fujiwara H, Lee K, Rose DF, Quantitative estimation of high-frequency neuromagnetic abnormality in epilepsy with spatially filtered magnetoencephalography, American Epilepsy Society (AES) 61st Annual Meeting, Philadelphia, PA., November 2007, *Poster presentation*.

[6] **Wang Y**, Xiang J, Liu Y, Vannes J, Rose DF, deGrauw T, Neuromagnetic differences in processing of open- and closed-class words in brain: A magnetoencephalographic study, Organization for Human Brain Mapping (OHBM) 2007 Annual Meeting, Chicago, IL., June 2007, *Poster presentation*.

[5] Xiang J, **Wang Y**, Liu Y, Fujiwara H, Hemasilpin N, Vannest J, Yuan W, Byars A, Holland SK, Rose DF, deGrauw T, High-frequency neuromagnetic signals associated with word processing: a new window for language mapping, Organization for Human Brain Mapping (OHBM) 2007 Annual Meeting, Chicago, IL., June 2007, *Poster presentation*.

[4] Xiang J, Liu Y, **Wang Y**, Lou J, Hemasilpin N, Fujiwara H, Rose DF, deGrauw T, Volumetric Reconstruction of High-frequency Neuromagnetic Activation in the Brain, Organization for Human Brain Mapping (OHBM) 2007 Annual Meeting, Chicago, IL., June 2007, *Poster presentation*.

[3] Xiang J, Liu Y, **Wang Y**, Lou J, Fujiwara H, Hemasilpin N, Vannest J, Yuan W, Byars A, Holland SK, Rose DF, deGrauw T, Spatiotemporal characterization of neuromagnetic activation of word perception and comprehension in auditory and visual domain, Organization for Human Brain Mapping (OHBM) 2007 Annual Meeting, Chicago, IL., June 2007, *Poster presentation*.

[2] Xiang J, Xiao Z, **Wang Y**, Feng Y, Qiao H, Sun B, Holowka S, Hunjan A, Sharma R, Chuang S, Rose DF, Detection of subtle structural abnormality in tuberous sclerosis using MEG guided post-image processing, 15th International Conference on Biomagnetism (BIOMAG 2006), Vancouver, Canada, August 2006, *Poster presentation*.

[1] Xiang J, **Wang Y**, Xiao Z, Balioussis C, Zhu H, Holowka S, Sharma R, Hunjan A, Otsubo H, Chuang S, Volumetric localization of epileptic activity using wavelet based synthetic aperture magnetometry, 15th International Conference on Biomagnetism (BIOMAG 2006), Vancouver, Canada, August 2006, *Poster presentation*.

Outreach Activities

[8] *The Untold Story of Dyslexia*, Dillabersuara, Podcast Episode, January 8, 2021.

[7] *The Science of Hearing*, Sunday with a Scientist, Neuroimaging for Language, Literacy and Learning Lab, University of Nebraska State Museum, February 23, 2020.

[6] Sent an email to invite Senator Deb Fischer for Nebraska to join the Congressional Neuroscience Caucus and NIH Caucus to provide an opportunity for congresspeople to discuss and pursue common legislative objectives, as well as fight for more funding in the biomedical sciences, January 13, 2020.

[5] *Cochlear Implants*, KROF (960 AM) radio talk show, September 14, 2019, and September 21, 2019.

[4] *Neural Pathways Supporting Reading Development in Children Who Are Deaf/Hard of Hearing*, Institute of Cognitive Neuroscience, Deafness Cognition and Language Research Centre, University College London, London, U.K., June 2019, *Oral Presentation*.

[3] *Neural Plasticity in Individuals Who Receive Cochlear Implant (s)*, Nottingham Biomedical Research Centre, National Institute for Health Research, Nottingham, U.K., June 2019, *Oral Presentation*.

[2] *Science After Dark – About the Brain*, Archie's Late Night Party, University of Nebraska State Museum, Lincoln, NE., June 2019, *Interactive format with hands-on activities*.

[1] *Understanding the Reading Brain – advocating Brain Research for children who are deaf/hard of hearing*, Library Event, Southeast Nebraska Regional Program for Students Who are Deaf or Hard of Hearing, May 2019, *Oral Presentation*.

TEACHING

TEACHING EXPERIENCE

Courses

Fall 2021 – 2022	Instructor	**Neurological Foundations of Speech and Language** Undergraduate-level course, UNL

Fall 2016 – 2022	Instructor	**Neuroimaging & Language Development** Graduate-level course, UNL
Spring 2017 Fall 2018 – 2022	Instructor	**Neural Basis of Reading** Graduate-level course, UNL
Fall 2017 – 2019 Spring 2019 – 2020 Summer 2017 – 2020 Fall 2022	Instructor	**Independent Study** Graduate-level course, Department of Special Education & Communication Disorders & Department of Biological System Engineering, UNL
Spring 2020	Instructor	**Doctoral Seminar** Graduate-level course, Department of Special Education & Communication Disorders & Department of Biological System Engineering, UNL
Fall 2017 – 2019	Instructor	**Directed Research/Research other than Thesis** Graduate-level course, UNL
Fall 2020 – 2022	Co-Instructor	**Adult Cognition and Language** Graduate-level Lectures, UNL
Winter 2009, 2012 Spring 2009, 2012	Lab Instructor.	**Bioinstrumentation** Undergraduate-level course, University of Cincinnati

Workshops

Summer 2017 – 2018	Co-Instructor	**Neuroimaging Data Analysis, FSL software** Department of Special Education & Communication Disorders & Center for Brain, Biology and Behavior, UNL
Summer 2014 Fall 2014	Co-Instructor	**Neuroimaging course** Gaab Lab, Division of Developmental Medicine, Boston Children's Hospital
Summer 2013	Co-Instructor	**Advanced Neuroimaging course** Cincinnati Children's Hospital

Guest Lectures

Summer 2020 "*Neural Bases of Reading Development and Difficulties*." SPED 992 Coded-based Reading Course, SECD, UNL.

TEACHING DEVELOPMENT

March – December 2022	Faculty-Led Inquiry Into Reflective and Scholarly Teaching (FIRST) Advanced-Level
Spring 2022	"Teaching Skillfully" Learning Community (Spring 2022) Discussion & Reflection of The Skillful Teacher: On Techniques, Trust, and Responsiveness in the Classroom (3rd edition)

	(Author: Stephen D. Brookfield) Facilitator: Jena Asgarpoor
January 2022	Teaching Philosophy: Finding Your Why (by Steven Cain, Julia Remsik Larsen, & Amy Ort, Center for Transformative Teaching)
September 2021 – July 2022	Reflective Practitioner Program
November 2021	Attended Workshop: "Encouraging Integrity: Using Course Design to Create an Anti-Cheating Classroom Culture" offered by Center for Transformative Teaching
March – December 2021	Peer Review of Teaching Project Fellowship (known as FIRST Beginning-Level)
September 2020	Invited Lisa Rohde, Ph.D., Associate Director of Teaching and Research Development to observe and evaluate my fall course and provide me with constructive suggestions.
Spring 2020	Emerging Scholars Series Workshop
February 2020	Teaching Symposium for enhancing teaching
January 2020	Attended "Active Learning" Seminar offered by Lisa Rohde
January 2020	Member of Teaching of Psychology

MENTORING

Postdoctoral Fellows Sponsored (total: 3)

Yinbo Wu, Ph.D., Psychology, University of Nebraska—Lincoln, United States, Jan.2021 – Aug.2021.

Avantika Mathur, Ph.D., Neuroscience, National Brain Research Center, India, Mar.2018 – Jul. 2020.

Ying Chen, Ph.D., Industrial Engineering, University of Texas at Arlington, United States, Sep. 2017 – Dec. 2017.

Graduate Students Primary Advisor (total: 6)

Soyoung Park, Speech-Language Pathology, SECD, UNL, Ph.D. student, Jan. 2020 – Spring 2022

Fatima Sibaii, Agricultural and Biological Systems Engineering, UNL, M.S. student, Aug.2017 – Present.

Caitlin Daly, Speech-Language Pathology, SECD, UNL, Jun.2020 – Fall 2021, "Neurobehavioral Correlates Resulting from Melodic Intonation Therapy for Individuals with Aphasia," Primary Advisors: Yingying Wang and Judy Harvey.

Ceceli Bonitto, AuD. Student, Audiology, SECD, UNL, Aug.2018 – May.2021, "Neural Basis of Speech Perception in Adult Cochlear Implant Users," Capstone project.

Bailey Heaton, AuD. Student, Audiology, SECD, UNL, Aug.2018 – May.2021, "Neural Basis of Speech Perception in Child Cochlear Implant Users," Capstone project.

Vanessa Whattam, Speech-Language Pathology, SECD, UNL, Dec.2017 – May.2019, "Study the reading brain," Thesis.

Graduate Students Independent Study (total: 2)

Mohsen Hozan, Biomedical Engineering, Biological Systems Engineering, Ph.D. student, Jun.2017 – Aug.2017, "Neuroimaging techniques."

Poupack Baghery, Electric Engineering, Computer and Electric Engineering, M.S. student, Jan.2019 – May.2019, "Neuroimaging methods and their applications."

Graduate Supervisory Committee Member (total: 16)

Takashi Sado, Ph.D. in Biomechanics, Department of Biomechanics, UNO, Primary Advisor: Mukul Mukherjee, Ph.D., Passed Candidacy in August 2022.

Rahul Krishnamurthy, Ph.D. in Human Science, SECD, UNL, Primary Advisor: Angela Dietsch, Ph.D., proposed study plan in November 2022.

Ross Westemeyer, Ph.D. in Human Science, SECD, UNL, Primary Advisor: Angela Dietsch, Ph.D., Passed Candidacy in June 2021.

Jacob L. Greenwood, "Multimodal assessment of somatosensory stimulation in acute cerebrovascular infarction", Ph.D. in Biological Systems Engineering, Department of Agricultural & Biological Systems Engineering, UNL, Primary Advisor: Steven M. Barlow, Ph.D., Passed Candidacy in March 2021.

Benjamin Hage, Ph.D. in Biological Systems Engineering, Department of Agricultural & Biological Systems Engineering, UNL, Primary Advisor: Gregory R. Bashford, Ph.D. Passed Candidacy in December 2020 and Defended in April 2022.

Amirsalar Mansouri, Ph.D. in Electrical & Computer Engineering, College of Engineering, UNL, Primary Advisor: Khalid Sayood, Ph.D., Passed Candidacy in December 2020. Defended and graduated in December 2021.

Tamrat Teshome, "Adverse Childhood Experiences (ACEs) and Adolescent Mental Health Problems," Ph.D. in Human Science, Child, Youth and Family Studies, UNL, Primary Advisor: Evan (Jeong-Kyun) Choi, Ph.D., Passed Candidacy in November 2020. Defended and graduated in August 2021.

Sangeeta Nair, "Combining MEG and fMRI to examine dynamic task-related brain activity with high spatiotemporal resolution," Ph.D. in Behavioral Neuroscience, Department of Psychology, University of Alabama at Birmingham, Primary Advisor: Jerzy P. Szaflarski, Ph.D. M.D., Passed Candidacy in December 2019. Defended and graduated in December 2021.

Alajandra Marquez, "Non-nutritive Suck Pattern Stability in Extremely Premature Infants as a Function of Pulmonary Status," M.S. in Speech-Language Pathology, SECD, UNL, April 2018 Mid-review for thesis, Primary Advisor: Steven M. Barlow, Ph.D.

Christopher Copeland, "Development and Validation of a Low-Cost 3D Printed Upper Limb Prosthetic Simulator," M.S. in Biomechanics, Department of Biomechanics, UNO, Primary Advisor: Jorge M. Zuniga, Ph.D., Graduated in August 2020.

Claudia Cortes-Reyes, "Assessment of Inter-limb Coordination in Pediatric Prosthetic User," M.S. in Biomechanics, Department of Biomechanics, UNO, Primary Advisor: Jorge M. Zuniga, Ph.D., Graduated in August 2020.

Elizabeth C. Hoffman, "Vibrotactile Threshold Estimation in Neurotypical Children," M.S. in Speech-Language Pathology, SECD, UNL, Primary Advisor: Steven M. Barlow, Ph.D., Graduated in May 2020.

Michaela K. Sullivan, "Oral angle ramp-and-hold isomeric force dynamics in young neurotypical adults," M.S. in Speech-Language Pathology, SECD, UNL, April 2018 Mid-review for thesis, Primary Advisor: Steven M. Barlow, Ph.D., Graduated in August 2018.

Lauren E. Wondra, "Cerebral blood flow velocity hemodynamic values in critically ill infants under one year of age," M.S. in Biological Systems Engineering, Department of Agricultural & Biological Systems Engineering, UNL, Primary Advisor: Gregory R. Bashford, Ph.D., Graduated in November 2017.

Hyuntaek Oh, "Brain encoding of salutatory velocity-scaled somatosensory array in glabrous hand among neurotypical adults," Ph.D. in Biological Systems Engineering, Department of Agricultural & Biological Systems Engineering, UNL, Primary Advisor, Steven M. Barlow, Ph.D., Graduated in September 2016.

Rebecca Custead, "Encoding of salutatory tactile velocity in the adult orofacial somatosensory system," Ph.D. in Human Sciences, SECD, UNL, Primary Advisor: Steven M. Barlow, Ph.D., Graduated in July 2016.

Undergraduate Creative Arts and Research Experience (UCARE) (total: 15)

Jordan Bollinger, Department of Agricultural & Biological Systems Engineering, UNL, Summer 2022 and Fall 2022 – Spring 2023, *Understanding the Cochlear Implant*, UCARE Award: $4,800

Marusha Ather, Department of Chemistry, UNL, Summer 2020 and 2020 – 2021, *Understanding the Cochlear Implant*, UCARE Award: $4,800

Ann Pham, Department of Biochemistry, UNL, 2020 – 2021, *Understanding the Cochlear Implant*, UCARE Award: $2,400

Patrick Wirball, Department of Agricultural & Biological Systems Engineering, UNL, 2020 – 2021, *Understanding the Cochlear Implant*, UCARE Award: $2,400

Makayla Gill, Department of Chemistry, UNL, Summer 2019 and 2019 – 2020, *Understanding the Cochlear Implant*, UCARE Award: $4,800

Bergen Bruhn, Department of Psychology, UNL, Summer 2019, *Understanding the Cochlear Implant*, UCARE Award: $2,400

Grace Carlson, Department of Agricultural & Biological Systems Engineering, UNL, Summer 2019, *Understanding the Cochlear Implant*, UCARE Award: $2,400

Grace Oh, Department of Biochemistry, UNL, Summer 2019, *Understanding the Cochlear Implant*, UCARE Award: $2,400

Emily Grybas, SECD, UNL, 2018-2019, *Study the reading brain*, UCARE Award: $2,400

Linneaa Nguyen, Department of Agricultural & Biological Systems Engineering, UNL, 2018-2019, *Study the reading brain*, UCARE Award: $2,400

Thy Thy Trat Thai, Department of Agricultural & Biological Systems Engineering, UNL, 2018-2019, *Study the reading brain*, UCARE Award: $2,400

Nicole Walters, Department of Biology, UNL, 2017-2018, *Brain Connectivity Changes in Children with and without a Familial Risk for Dyslexia During Reading Development*, UCARE Award: $2,400

Laura Munn, SECD, UNL, 2016-2018, *Brain Connectivity Changes in Children with and without a Familial Risk for Dyslexia During Reading Development, and Executive function in children at-risk for reading impairment*, UCARE Award: $4,800

Ellie Watkins, SECD, UNL, 2016-2018, *Brain Connectivity Changes in Children with and without a Familial Risk for Dyslexia During Reading Development, and Executive function in children at-risk for reading impairment*, UCARE Award: $4,800

Katie Monson, SECD, UNL, 2016-2017, *Executive function in children at-risk for reading impairment*, UCARE Award: $2,400

Undergraduate/Graduate Student Volunteers/Workers (total: 17)

Kelly VandenBos, Biology & Psychology, UNL, Jan.2023 – present, Undergraduate Student Volunteer.

Mackenzie Dunlap, SECD, UNL, Dec.2022 – present, Undergraduate Student Volunteer.

Courtney Toner, SECD, UNL, Dec.2022 – present, Undergraduate Student Volunteer.

Hannah Gaffney, SECD, UNL, Oct.2020 – Jun.2021, Graduate Student Worker.

Rebekah Urban, SECD, UNL, Oct.2020 – Jun.2021, Graduate Student Worker.

Elaine Williams, SECD, UNL, Nov.2019 – Sep.2020, Graduate Student Worker.

Taelor Williamson, SECD, UNL, Nov.2019 – Sep.2020, Graduate Student Worker.

Patrick Wirball, Department of Agricultural & Biological Systems Engineering, UNL, Nov.2019 – May. 2020, Undergraduate Student Volunteer.

Seyedeh Dorsa Motevalli, Department of Agricultural & Biological Systems Engineering, UNL, Oct.2019 – Jun.2020, Undergraduate Student Volunteer.

Tamrat Teshome, Department of Child, Youth and Family Studies, UNL, Apr.2019 – Aug.2019, Graduate Student Volunteer.

Kymberly Caddell, Department of Educational Psychology, UNL, May.2019 – Apr.2019, Graduate Student Worker.

Randa Ismail, Department of Biochemistry, UNL, Apr.2019 – Sep.2019, Undergraduate Student Volunteer.

Grace Oh, Department of Biology, UNL, May.2018 – May.2019, Undergraduate Student Volunteer.

Molly Thornbrugh, SECD, UNL, Aug.2018 – Nov.2018, Graduate Student Volunteer.

Cristal Franco-Granados, Department of Biology, UNL, May.2018 – Aug.2018, Undergraduate Student Worker.

Michelle Rohman, Department of Biology, UNL, May.2018 – Aug.2018, Undergraduate Student Worker.

Joelly Anderson, SECD, UNL, May.2018 – Aug.2018, Undergraduate Student Worker.

Nicole Walters, Department of Biology, UNL, 2016 – 2017, Undergraduate Student Volunteer.

Sarah Hughes Berheim, Department of Psychology, UNL, 2017 – 2018, Undergraduate Student Volunteer.

Sampashree Nayak, Department of Educational Psychology, UNL, Apr.2016 – Mar.2017, Graduate Student Volunteer.

Mentee Success

Yinbo Wu (Florida International University Postdoctoral Fellow)

Avantika Mathur (Vanderbilt University Postdoctoral Fellow)

Joelly Anderson (UNL graduate student)

Laura Munn (UNL graduate student)

Ellie Watkins (UNO graduate student)

Katie Monson (UNO graduate student)

Sampashree Nayak (UNL graduate student)

Other Mentoring

Heena Manglani, Ph.D. in clinical psychology, The Ohio State University, OHBM mentorship program, Nov.2020 – Present.

Dannielle Schutz, High school student who is interested in Biomedical Engineering, Job shadow, Nov.2019

SERVICE

Committee Memberships – Department Level

2022 – Present	Chair Advisory Committee. SECD, UNL
2018 – 2021	SLP Governance Committee, SECD, UNL
2016 – 2020	Department Research Committee, SECD, UNL

Committee Memberships – University Level

2020 – Present	Convocations Committee Chair, CEHS, UNL
2018 – Present	Educational Neuroscience Certification Committee member, CEHS, UNL
2017 – Present	Biomedical Engineering (BME) Ph.D. Graduate Committee, CE, UNL
2020	CB3 Research Assistant Search Committee, UNL
2019 – 2020	Social, Behavioral, Educational (SBED) Position Search Committee, CEHS, UNL
2016 – 2017	CB3 Director Search Committee, UNL

Committee Memberships – External

2021 – Present	Organization for Human Brain Mapping Council: Treasurer Elect
2020 – Present	OHBM Program Committee
2020 – Present	NSLHA School Issues Committee Meeting

Ad Hoc Refereeing

American Journal of Speech-Language Pathology	Acta Paediatrica
Frontiers in Neurology, section Applied Neuroimaging	Annals of Dyslexia
Frontiers in Human Neuroscience | Brain Imaging and Stimulation	Aging
Frontiers in Human Neuroscience | Brain Imaging Methods	Frontiers for Young Minds
Human Brain Mapping	Brain and Behavior
Human Brain Mapping Conference Abstract	Brain Sciences
Journal of Experimental Child Psychology	Brain and Cognition
Journal of Learning Disabilities	Brain Connectivity
Journal of Medical Imaging and Health Informatics	Brain Imaging and Behavior
Journal of Magnetic Resonance Imaging	Brain Structure and Function
Journal of Neurolinguistics	Child Neuropsychology
Journal of the International Neuropsychological Society	Child Neurology Open
Language, Cognition and Neuroscience	Cortex
Mind, Brain and Education	Current Eye Research
Network: Computation in Neural Systems	Developmental Science
Neuroimaging: Clinical	Dyslexia
Neuropsychologia	Ear and Hearing
PLoS ONE	Frontiers in Psychology
Psychiatry Research: Neuroimaging	IEEE Access
Psychology & Neuroscience	The Journal of Pediatrics
Scientific Reports	Scientific Studies of Reading

Grant External Reviewer

March 2022	National Institutes of Health	Language and Communication Study Section
February 2022	National Science Foundation	Review Panelist
April 2021	National Science Foundation	Review Panelist
March 2021	National Institutes of Health	Language and Communication Study Section
May 2019	National Science Foundation	Review Panelist

Grant Internal Reviewer

June 2022 Grand Challenges Planning Grant Proposal Review Panelist

Extracurricular University and Community Services

2018 – 2019	Led Seven tour groups visit the CB3
2019	Rater for Institute for International Teaching Assistants
2019	Writing Postcards to No Admitted Students
2019	Reviewer for GSA Travel Grant Awards Program Committee
2019	Selection Committee for UCARE program

2018	Judger at the UNL Spring Research Fair
2017 – 2018	Poster reviewer at the UNL Spring Graduate Poster Session
2017	Judger of undergraduate posters at the UNL Spring Research Fair
2016	Judger at the 2016 UNL Biomedical Graduate Posters
2011 – 2012	Health Sciences Graduate Association Webmaster, University of Cincinnati, OH.
2010 – 2011	Health Sciences Graduate Association Representative, Cincinnati, OH.
2006 – 2013	Volunteer at Ronald McDonald House, Cincinnati, OH.

Memberships in Professional Societies

2019 – Present	Society for the Neurobiology of Language
2019 – Present	Nebraska Speech-Language-Hearing Association
2019 – Present	American Speech-Language-Hearing Association
2017 – Present	Association for Psychological Science
2015 – Present	Society of Neuroscience
2014 – Present	American Association for the Advancement of Science
2014 – Present	Cognitive Neuroscience Society
2010 – Present	IEEE Engineering in Medicine and Biology Society Membership
2010 – Present	IEEE Women in Engineering Membership
2007 – Present	Organization for Human Brain Mapping

Media Coverage

Brain imaging brings predictors for cochlear implantation success into focus, Nebraska Today News, 12/02/2019

Brain Awareness: Wang brings brain imaging expertise to SECD, Department News, 03/20/2017

Fellowships, Honors, and Awards

2018	Research Development Fellows Program, Office of Research and Economic Development, University of Nebraska-Lincoln (course release, fellowship)
2016	Scholarly Enhancement Program, College of Education and Human Sciences, University of Nebraska-Lincoln (course release, fellowship: $1,700)
2015	The Fellow Award, Division of Developmental Medicine, Boston (1 out of 30)
2014	Cognitive Neuroscience Society (CNS), People's Choice Poster Award, Boston (1 out of 300)
2014	NIH funded Neuroimaging Training Award, University of California
2012	Graduate Student Research Fellowship, University of Cincinnati (top 27%)
2012, 2013	Conference Travel Awards, University of Cincinnati (top 20%)
2005	Shanghai Outstanding Graduate Student Award (top 5%)
2014	Cognitive Neuroscience Society (CNS), People's Choice Poster Award, Boston (1 out of 300)
1998 – 2005	Merit Student, Shanghai University, China (university top 5%)
1998 – 1999	Special Grade Scholarship, Shanghai University, China (department top 5%)